

A fisherman of the shallow sea uses only a short line; a fisherman of the deep sea has a long line. A person whose knowledge is shallow does not have much, but he whose knowledge is great does.

—Pukui 1983

# Cultivating Aloha 'Āina Through Critical Indigenous Pedagogies of Place

by Maureen K. Porter and Nik Cristobal

Deeply embedded traditional wisdom flourishes in an organic relationship with the stunning places that Native Hawaiians call home. From the highest jagged peaks to waterfalls that plummet down to beaches, which in turn buffer fragile tidal pools, the islands' ecosystems attest to the interconnections of all life. Millennia of hard-won experiences living with and upon the seas and lands have shaped Indigenous senses of place and their creative expression in folklife. Native Hawaiians' resulting depth of knowledge has contributed to sophisticated scientific, theological, linguistic, and artistic ways of living, generating the enduring folkways that create a unique sense of place. Folklore, education, and place are one.

Learning to thrive in harmony with this landscape, to steward and learn from the forests and waterways, and to enact love for others all combine in aloha 'āina, the active devotion to one's place and the concern for the well-being and shared wisdom of one's people and homeland. As authors, we use the Native Hawaiian commitment to aloha 'āina as the fundamental guiding principle that orients our approach to place-based education; thus it opens our discussion and leads to the sections that follow. After situating aloha 'āina as part of a Critical Indigenous Pedagogy of Place, we look at how teachers, both Native and non-Native, can make this goal, and the larger political and cultural practices necessary to achieve it fully, more vibrant and relevant for their students.

**Note on Terms:** Common words in 'ōlelo Hawai'i (the Hawaiian language) will be used throughout. The English translation will be provided upon first use. The "I" in "Indigenous" and the "N" in "Native Hawaiian" are capitalized, and words in 'ōlelo Hawai'i are not italicized as a way to remain centered on Native Hawaiian worldview. This is congruent with our overall liberatory stance toward Critical Indigenous Pedagogies of Place.

To these ends, we offer curricular building blocks that derive from Indigenous Hawaiian senses of place and purpose, but that can also find resonance in other settings. We examine lōkahi (unity or holism) as key to place- and culturally-responsive education that can foster such a love of places and people. Done well and in conjunction with a Critical Indigenous Pedagogy of Place, it provides teachers and learners an anchoring piko (center) on which to establish the foundation for cultural survivance (Vizenor 2008). Like the kalo (taro) plant that offers both literal and symbolic sources of nourishing strength, place-based education rooted in cherished Indigenous folklife provides an ecological model of education for social transformation. This responds to David Grunewald's (2003) call for an entwined model that affirms human beings' responsibility for and relationship to the environment. The concepts of lōkahi and piko combine in our synthesis curriculum example about kalo, modeling for other teachers how to build multi-year, interdisciplinary, and thus in the long-term transformative, curricular arcs.

As a writing team, we are multiracial, Indigenous Hawaiian and White Midwestern-raised, women with strong ties to homeplaces and people who continue to shape our commitments to social justice. We speak as educators, writers, advocates, and allies of others who are part of an international discourse about culture, place, and power. We offer this article as part of our work to challenge the consequences of the prevailing U.S. colonial systems of power and disenfranchisement. We see ourselves as connected to local struggles as well as to global movements of engagement and education for social justice. Both senses, of having something unique to steward and something in common to protect for future generations, propel us as teachers to seek out frameworks for better understanding about how to take action. We believe that cultivating a love for our earth and greater care for one another is the place to start.

### Aloha 'Āina

Our intentional selection of aloha 'āina as the orienting goal provides the rationale to select several best practices in place-based folklife education for our readers. In this, we act in concert with proven "high-leverage teaching practices" that meet the American Council on the Teaching of Foreign Languages' call to link cultural practices and products with the underlying perspectives that give them meaning and significance (Glisan and Donato 2017). For Native Hawaiians, aloha 'āina provides that all-encompassing perspective.

Aloha 'āina is a shared kuleana (responsibility) that we all have to the land. It is collective and deeply personal at once. As educators, we aim to nurture the gut-level sense of connection students have with their homeplaces. Na'auao, translatable literally as enlightened intestines, is used in everyday speech to mean wisdom or a deeply held, personalized conviction. For Native Hawaiians, na'auao is gained through being in conversation with their particular location, via connections to ancestral knowledge and values, and through understanding how to reconcile the tensions between mainstream ideals and their own. Native Hawaiian folklife and place are one, since knowledge is acquired through experiences and connections between culture, space, and language. Meyer (2001) prompts teachers to offer multi-modal pedagogies that engage the whole person, noting that feeling is knowing and intelligence is function. This enhances the longevity of lessons and their tangible value. Triangulated with body and mind, spirituality works on multiple levels, connecting Native Hawaiians to their past and holding them tight to their present while laying the future in the palm of their hands (Meyer 2003).

In her pivotal ethnography of an 'āina-based Native Hawaiian charter school, Hālau Kū Māna (HKM) in urban Honolulu, Noelani Goodyear-Ka'ōpua (2013) states, "Aloha 'āina expresses an unswerving dedication to the health of the natural world and a staunch commitment to political autonomy, as both are integral to a healthy existence. Although it is often imperfectly translated to 'love for the land' and 'patriotism,' the aloha part of this phrase is an active verb, a practice rather than as merely a feeling or belief" (32). We adopt this understanding of aloha 'āina as a living, dynamic practice, just as both folklife and place are living, dynamic entities. They require active cultivation and care to survive, even thrive, in a global economy in which gentrification and tourism are just the most recent forms of exploitation of the āina and people.

Just like folklife, a sense of place is internally diverse, reflecting the complex variety of ways that people in a region can understand and express their relationships with one another and with the land and seas. For example, some of the greatest triumphs of Pacific Islander navigation, astronomy, canoe crafting, and commerce systems grew out of the challenges and allure of travel around the vast Pacific Ocean. Some legacies have made it into formal school history and science textbooks; other forms of Indigenous wisdom thrive primarily in informal apprenticeships, at family gatherings, and in informal youth leadership programs. At their heart, even if Hawaiian senses of place and purpose have been less visible to (or were strategically devalued by) outside audiences, they remain fundamental to Native Hawaiians' identity and understanding of their place in the universe. This article highlights some promising best practices of educators working together across the strengths of their respective fields to show, through their praxis and scholarship, the important contributions that a folklife orientation makes to place-based education.

We recognize that for Indigenous teachers and students, the risks and immediacy of leading in a culturally- and place-conscious manner are much different than for non-Indigenous colleagues. However, we see this as a call to continue to join forces and to honor wisdom from Native Hawaiian practitioners. These efforts model respect and justice. Teaching about the interplay of power, culture, and place is the Commons (Theobald and Curtiss 2000) where we can meet productively. Whether framed as part of ecological education, bioregional education, outdoor education, or community-based education (Knapp 2005, 278), the concept of "place" serves as the hub for organizing pedagogies and policies that locate 'āina within the contested contexts of development, commerce, and tourism. For example, when covering history, teachers on or off island can show clear connections between the growth of mono-crop pineapple or sugarcane plantations and the overthrow of the Hawaiian monarchy by U.S. business owners. Teachers can guide students to (re)connect with the cultural, political, and social aspects of their place, which includes both naturally occurring and built environments (Smith 2002).

A'ohe pau ka 'ike i ka halau ho'okahi

"All knowledge is not taught in the same school"

We find this last point particularly important for students living in the larger cities in the islands who need to see their traditional folklife is still integral and inspirational in these new places. Urbanization is not the antithesis of modern Native identity, despite outsiders' erroneous stereotypes of Native peoples as living primarily in rural areas. Dynamic Indigenous movements address both the challenges and opportunities of urban life. It can propel modern artistic and cultural expressions of a transnational

sense of place, adapting to new artistic surfaces, materials, sports, pastimes, and topics. For example, we recently saw an 'ōlelo no'eau (proverb) inscribed within a mural on the wall of an urban scuba shop in Honolulu, O'ahu: "'A'ohe pau ka 'ike i ka halau ho'okahi," or, "All knowledge is not taught in the same school" (Pukui 1983). In the mural, a hip trident-wielding neon pink octopus was guarding a treasure in the deep sea, while a boat above plied the waves. This syncretic image and proverb merged both traditional and urban aesthetic sensibilities to show that placebased education can, and needs to, happen at home, in the neighborhood, out on the sea and on land, and in formalized places for learning such as schools.

This anchoring concept of aloha 'āina also prompts us to consider problematic aspects of teaching about someone else's homeplace, and how non-Native teachers can help students to appreciate, rather than to appropriate. Elements of Native Hawaiian material culture, such as hula skirts or canoes, are widely circulated as commercialized, even caricatured, items. They could be used flippantly as stereotypical classroom décor, or they can be presented with the great respect and honor due those who have earned the right to perform in or navigate with them. Because of their ubiquity in party stores as gaudy plastic favors, non-Hawaiian students are likely well aware of their surface forms, but it is important for place-based educators to be able to share the deep, often political folklife practices that sustain these practices today. For example, hula is the human body moving in synchrony with mele (songs) and rhythms of the 'āina, a fully embodied experience that is alive on several concurrent levels that are symbolically nuanced and metaphorically powerful. Tradition bearers can come in and talk about the meaning that being a hula practitioner has had for them over the different stages of their lives. While tourist kitsch makes use of this stereotypical image as a profitable form of cultural commodification, for Native Hawaiians, sustaining the rich

tradition of hula as a deep practice can be both a lifeway and mode of resistance and cultural survivance (Lipe 2014). Tracing the "long lines" that plumb deep meaning helps non-Hawaiian students see beyond the form to the underlying function. Such contested symbols and practices are fascinating junctures that provide teachable moments to talk about exotification and Othering. As part of а critical transformative education, discussing the interplay of folklife and place provides a poignant moment for students to see that global tourism and commodification-of both 'āina and people—can get in the way of truly appreciating what others bring from their homelands and home cultures.

The Hawai'i state motto, attributed to King Kamehameha III, is "Ua mau ke ea o ka 'āina i ka pono," that is, "The life of the land is perpetuated in righteousness." We believe that educators are critical to the

# A Legend

In Hawai'i long ago, the Goddess Ho'ohōkūkalani and the God Wākea birthed a stillborn son named Hāloanakalaukapalili. When night fell, they buried him to face the rising sun. Ho'ohōkūkalani grieved at his grave, her tears making their way from her eyes, down her cheeks, and falling to meet the soil that shrouded her son. One day, from Hāloanakalaukapalili's burial spot rooted the kalo plant. To honor his deceased son, Wakea named the stalk of the kalo, hā and the length, loa. The corm, he named, 'oha. When the 'oha is removed from the mother plant and replanted, another plant will grow. It is, thus, from Hāloanakalaukapalili that the 'ohana (family) was named, rooting human genealogy in the 'āina. Ho'ohōkūkalani went on to birth another son who she named Hāloa after her first son, who became the first Native Hawaiian. Native Hawaiians are said to be keiki o ka 'āina (children of the land). It is from the 'āina that Native Hawaiians grew, and it is through the 'āina that Native Hawaiians will be sustained. (Lindo 1980)

211140 1900

greater civic project of aloha 'āina, one that has resonance far beyond its special imperative on the islands. For Indigenous educators the struggle for sovereignty and survivance is immediate and inclusive. It grows out of a deep, sustained relationship to and responsibility for Native Hawaiian homeplaces. Jeff Corntassel and Cheryl Bryce remind us that for nation peoples, which they define as "place-based communities whose relationships with their homelands (both land and water) govern their roles and responsibilities" (2012, 151), both right relationships and responsibility are more important, and, in the longer term, contribute more to decolonization and sovereignty, than justification by calling upon human rights discourses that largely capitulate to settler regimes, government oversight, and foreign systems of jurisprudence. Their persuasive argument is continually grounded in place-based and folklife sensibilities, noting that a well-integrated "Indigenous resurgence is about reconnecting with homelands, cultural practices, and communities, and is centered on reclaiming, restoring, and regenerating homeland relationships" (153). Whether we are talking about where each of us works and lives, or about the Earth that we share, a commitment to aloha 'āina can connect us. Wherever we engage in this parallel, and often converging effort, we benefit greatly by taking a grounded, place-conscious stance of advocacy and engagement. The life of the land, and therefore the people, is indeed perpetuated in righteous relationships to, with, and for places and one another.

In rounding out this introduction to dedication to place, and in seeking a theoretical framework that will enable us to gauge our progress to those ends, it is useful to recap the resources at hand. In her concordant, multi-strand analysis, Mehana Blaich Vaughan (2016) points out that kuleana for aloha 'āina depends on weaving together three strands into one strong, holistic braid. We agree that this provides a useful metaphor with which to conclude what it means to live out aloha 'āina. One strand is protecting the physical 'āina, thereby ensuring ecological well-being and sustaining natural resources. The second strand is empowering the community through political activism so that aloha 'āina can be fully enacted across generations. The third strand is spiritual, incorporating the 'ike kūpuna (knowledge of and from ancestors and elders). This strongly woven braid cannot easily be unraveled; it provides a lifeline for deep praxis that exemplifies, and perpetuates, pono (righteousness/goodness).

# **Critical Indigenous Pedagogies of Place**

This pedagogical project of reinhabitation and decolonization requires a sophisticated theoretical framework. Critical Indigenous Pedagogies of Place (CIPP) provide a framework for questioning some underlying assumptions of typical place-based frameworks; our article therefore aims to extend and enrich place- and culturally-conscious education with place-based wisdom from Indigenous Hawaiian worldviews. Adding CIPP to our theoretical toolbelt provides a radically different measuring stick against which to assess progress toward achieving aloha 'āina, one which we assert would significantly reorient standards for place-based discourse and praxis to the benefit of all people. This theoretical framework offers priorities and core practices. It boldly suggests priorities for those who would act with pono and civic courage on behalf of the places that and people whom they love. It also focuses our energies on high-potential curricular practices that can be used by anyone, whether Native advocate or global ally, to appreciate Native Hawaiian sovereignty and survivance and to recommit to live out aloha 'āina wherever they dwell.

Before we introduce curricular illustrations of teaching for aloha 'āina, we need to spotlight the essential elements that such a holistic curriculum contains. Alma Trinidad most concisely

identifies means to achieve this end: critical pedagogies, a reconceptualization of place, and Indigenous epistemologies (2011, 191). These inform our selective review of the literature and our choice of curricula that we feel are models of best practice. Native reinhabitation, decolonization, and sustainability are the priorities necessary to live out aloha 'āina on their own terms. By recentering Indigenous ways of knowing and stewarding, this grounded, Critical Indigenous Pedagogy of Place attempts to address the disproportionate adverse educational outcomes affecting Native Hawaiian students that occur as a result of the hierarchal misalignment of the Eurocentric educational school system with Native Hawaiian ways of knowing. Incorporating this deeper agenda into place-based education could help teachers more effectively reach out to potentially disenfranchised students, to make the curriculum richer for all students, and to make the value of folklife-infused education more apparent for their colleagues, whether in primary or graduate school.

First, CIPP builds on critical place-based pedagogies that link the reclamation of close ties to the physical landscape to the challenge of overcoming socio-political barriers and hierarchies put in place to legitimize settler economies. David Grunewald (2003) calls for two principled strategies. Especially salient for Indigenous peoples reasserting their sovereign rights to 'āina, is reinhabitation, "learning to live in a place that has been disrupted and injured through past exploitation" (9). Decolonization is the process of exposing the ways dominant systems systematically silence cultural and historical ways of knowing and being by intentionally obscuring past and current injustices. Put succinctly, CIPP "...aims to (a) identify, recover, and create material spaces and places that teach us how to live well in our total environments (reinhabitation); and (b) identify and change ways of thinking that injure and exploit other people and places (decolonization)" (Ibid). CIPP challenges schools' place-based curricula that would normalize or legitimize histories of "settling" the frontier or "civilizing" Natives; narratives that are used to advance systems of domination on the basis of identity politics (Cravey and Petit 2012, 102). The net benefit is a call to active resistance and a critical pedagogy in which youth actually demonstrate agency and advocacy on behalf of the places they each love.

A fundamental principle guiding some place-based education is a view of 'āina as subject to human intercession, an object to be marketed, a park to be preserved, or living things to be archived and scientifically conserved. Indigenous wisdom speaks back to this characterization of "place" as inanimate or rationally separate from humans, even dangerous to them. Secondly, CIPP therefore asks us to reconceptualize what place means and how we come to care about places. Keiki (children) today tend to be exposed to Nature as a TV channel, a foreign entity full of wild, fierce, dangerous things best seen from a safe distance as a spectacle and as entertainment (Louv 2005). As place-based educators, we need to re-center the importance of firsthand relational experience of being one with, in, and of a place. The examples show how teachers and students are infusing school life with outdoor education and civic engagement rather than offering those activities as part of an optional club outside of the sanctioned school day. That way, everyone is engaged in direct contact. But, CIPP further warns, we need to act humbly, reframing "place" not as an external object to be subjugated and sold, but rather as a living entity in its own right. Prolonged, personal immersion leads to deep understanding, not of what we wish to see or seek to use, but as it is. Nature needs to be "...taught and understood in and on its own terms" (Cajete 1994, 39). Awe and inspiration can be even more powerful motivators than a rationalistic, utilitarian understanding of nature. They inspire connection, the basis for action.

Relationships and responsibility underscore a Critical Indigenous Pedagogy of Place. Therefore, reconceptualizing what place means and how we can relate to it and one another is key to pono. As it relates specifically to Native Hawaiian epistemologies, place consists of entwined elements woven into one lei. These interwoven aspects of place are 'āina as source, 'āina as people, and 'āina as connection and care. "'Āina as source is that which feeds. It is the physical place itself. 'Āina as people refers to those who are connected to that place" (Vaughan 2016, 47-8). "'Āina and the people in it are one and the same. People do not own the 'āina; they are in relationship with it, a relationship so deeply personal that mo'olelo (narratives/stories/histories) of human connection with 'āina tell of how people became the 'āina "...by melting into the rain of the area and by becoming a tree and wind of that place" (Nāone 2008, 319). Connection and care are additional elements of Native Hawaiian epistemology of place-consciousness; one's kuleana is actualized through being immersed in connections and having something to care for and about. This is the strand of action: the practicing, living, and experiencing of culture through aloha 'āina. It is not enough to know, think, and feel; one must also do (Meyer 2001, 129).

CIPP contextualizes community cultural and ecological assets within a framework of resistance and survivance, engaging youth, and their teachers, in pedagogies that speak to the whole person and foster active connections to living places in their fullest senses. Therefore, it is equally important to engage students formatively with applied experiences of ethnographic ways of knowing. The *Standards for Folklife Education* assert that it can be transformative for youth to learn to use the tools of folklore studies (e.g., careful and open-minded observation, appreciation of enduring rituals, discernment of nuances in language, listening to elders' and tradition bearers' modes of storytelling, and learning by guided practice) (Sidener 1997). Linda Deafenbaugh's (2018) careful study of what and how urban students actually learned about cultural processes via structured folklife education details how teens can also gain awareness of the workings of local cultures and spaces and, as a result, develop their capacity for tolerance. Wherever they live, this is an important capacity, one particularly salient when it comes to putting their newfound awareness into action when they join new communities, professions, and places of residence. Learning to see the promise and issues in one place leads to the capacity to work with others to care for other places.

Teachers can help students conduct their own ethnographies, thereby gaining a firsthand awareness of the significant webs relationship that contribute to their well-being as well as the sustainability of local cultural and ecological worlds. A particularly illustration of Indigenous-centered an curriculum that emphasizes active stewardship and conservation is Project Aloha 'Āina, which has grade-level curricula for grades 3-7, including a conservation unit for 6<sup>th</sup> graders. It takes an activist stance of building on a meritorious, sustainable heritage, one in which people made needed objects out of renewable resources, rather than a modern society driven

#### **Selected Teacher Resource Links**

Connect Culture with Learning: Lōkahi Wheel. <a href="https://www.cds.hawaii.edu/heupena/strategies/connect/strategies/strategy04.php">www.cds.hawaii.edu/heupena/strategies/connect/strategies/strategy04.php</a> (He 'Upena o ke A'o 2008)

Developing the Capacity for Tolerance through Folklife Education.

http://d-scholarship.pitt.edu/id/eprint/33691 (Deafenbaugh 2018)

Project Aloha 'Āina.

http://ulukau.org/gsdl2.81/cgi-bin/cbalohaaina4?l=haw (2009)

by consumerism and waste. Through a community audit, outings, and structured lessons about garbage, students see ways that they can reclaim Native modes of research and conservation in local, regional, and pan-Pacific contexts. Through their publications, network, and Nature Activities for Learning and Understanding (NALU) Studies, the authors provide a valuable hub for teachers looking to blend folklore, education, and place-based studies (Project Aloha 'Āina 2009). We recommend that readers investigate our curated sources in the bibliography, many with free links to their model curricula.

One strength of the plethora of excellent Native Hawaiian resources is that many educators have taken particular care in preserving and actively integrating oral traditions and personal testimonies. This includes honoring the mo'olelo of kūpuna (elders/ ancestors) as teachers and as originators of the spirit of 'āina and Native Hawaiian being (Vaughan 2016, 45-9). CIPP incorporates many sources of spiritual sustenance such as crafting mo'olelo into counterstorytelling as a purposeful act of resistance (Solórzano and Yosso 2002). Critical-race methodologies not only center the experiences of people of Color and empower them to speak their truths, but can also be used to build theory, to ask new questions, and to investigate a wider range of mo'olelo as legitimate forms of research. All these contribute to an overall "strategy of survival and a means of resistance" (37).

Our next sections feature just such testimonies from praxis, pointing readers to two foundational concepts that anchor CIPP in Hawai'i: lōkahi and piko. Then, as a further illustration of the cumulative advantages of linking these multifaceted folk concepts, we apply these concepts to a synthesis curriculum that has intermediate-level lessons about the kalo plant. This set of applications illustrates how CIPP works in harmony with place-based and folklife education to connect and involve youth, thereby cultivating a sustainable commitment to life-long aloha 'āina.

#### Lōkahi

We aimed to select illustrations that are substantive *and* affirming. A fundamental orientation of CIPP is the shift away from a deficit model emphasizing students' relative inadequacies to acknowledging the assets that students bring to school from their 'ohana, 'āina, and kūpuna. The dominant assimilationist approach to schooling normalizes European, white, middle-class ways of being as superior (Paris 2012, 94). This leads Native Hawaiian students to experience consistently lower academic achievement, higher rates of absenteeism and attrition, and a higher rate of behavioral difficulties than their non-Native Hawaiian peers (Kana'iaupuni et al. 2010, 2).

In contrast, strengths-based approaches to education, such as those celebrating folklife and place, locate instruction within contexts that reflect the sets of values, beliefs, practices, and language within a specific culture (Kana'iaupuni et al. 2010, 3). The emphasis is upon affirming multiple resources, and drawing on complementary sets of skills and orientations. As a result, culturally responsive education that values collective wisdom enables students to move boldly from a shallow sea to dare to explore deeper seas, taking along those long lines of knowledge cumulatively woven by kūpuna over the ages and handed over to them as their cultural legacy. Rather than abandoning their heritage, a place- and culturally-sustaining education fosters learners' senses of legitimacy, belonging, and holistic well-being. This emboldens them to achieve the balance that they need to mālama i ka 'āina (sustain or care for the Earth). A primary depiction of this underlying principle of balance is the Lōkahi Wheel, which is why we selected it as the first of our two applied examples of foundational, concept-based units.



Lōkahi Wheel courtesy of He 'Upena o ke A'o: Culturally responsive classrooms. www.cds.hawaii.edu/heupena/strategies/connect/strategies/strategy04.php

The Lōkahi Wheel is a heuristic tool that brings together six domains into a unified view of the balanced person. It offers a simple, practical means of envisioning this living principle. "Lōkahi refers to balance, harmony, and unity for the self, in relationship to the body, mind, and spirit" (He 'Upena o ke A'o 2008, np). Culturally responsive pedagogies that honor these aspects of living on the islands, "foster and shape the development of students in Hawai'i to become responsible, capable, caring, healthy human beings who have a strong cultural identity and sense of place" (Ibid). Further, the Lōkahi Wheel can be a prompt to make visible a major lesson of CIPP, namely that the individual, community, and environment are parts of a balanced whole, and do not need to be rivals in a competition for loyalty or resources.

Interestingly, the parts of the wheel also parallel major domains in the field of folklife studies, prompting teachers to point out to students the deep ways that Indigenous wisdom can enrich studies of ethics, spiritual expressions, concepts of health, responsibility for people and places, different kinds of families and kinship systems, and what counts as important traditional knowledge and how it can be transmitted. In a wider sense, the equally sectioned Lōkahi Wheel can also be an impetus to folklife scholars to broaden and balance their inquiries into what matters in the world.

Based on our presentation of the Lōkahi Wheel in classes in the University of Pittsburgh School of Education, we have seen that our adult students respond well to use of the Wheel as part of a dialogic classroom space. They have loved the critical pedagogies that engage the whole person, questions that prompt them to think about their integral place in the wider world, and affirmations of the diverse ways of knowing that they bring to the class. The following elaborations illustrate

how both those in Hawai'i and those elsewhere could use this tool in a respectful, multilayered way that enables students to honor meaningful local relationships and to identify actions that they could take. They see that they already have something to bring to the table, classroom discourse, or town hall meeting.

Teachers can ask students to fill in each wedge of the Wheel with a word, image, symbol, icon, color, or by sharing another illustration of what that element means to them. (They can also encourage kinesthetic learners to act out a scenario or experience, another creative pedagogy that is engaging at any age and accommodates many different kinds of intelligences.) We have found that teaching with this heuristic tool helps to make underlying cultural wealth visible. For example, encouraging students to draw a symbol or picture of how one of the components manifests itself in their lives, can activate their working knowledge of folkloristic icons and symbolically potent material culture artifacts. This can reinforce Native Hawaiian students' ranges of insight about, for instance, the rainbow, a potent symbol used on and for everything from drivers' licenses to sports team mascots to a flavor of shave ice (Hawai'i snow cone). Moving it from the realm of something devalued and taken for granted in popular culture to something valued in the formal classroom is CIPP in action. Taking the time to replicate, and then to explain, a symbol is integral to the process of meaning-making as well as to learning how to read one's local environment ethnographically. Furthermore, professors should not negate the kind of communal enjoyment that coloring with markers can have when graduate students playfully create—and then share—pictures in their Wheels, a pleasure too often relegated to early grades, but at least as satisfying to adults who usually deal in the currency of words, not images.

Blended into vocational career counseling or incorporated into pre-service teachers' personal counter-storytelling, a Lōkahi Wheel exercise would help youth to see what they have gained from growing up in a certain place and time. It encourages them to see their 'ohana and community's living folklife as an asset rather than a liability, as a modern form of powerful expression rather than a quaint or long-lost practice. Reclaiming symbols, heroic figures, or ways of referring to nature (e.g., Native Hawaiian Goddess of Fire and Volcanos, Pele, is mad and erupting) is a means of reclaiming power. It speaks back to U.S.-imposed colonization and occupation that cause Native Hawaiians to be subjugated in their own land (Trask 2000, 103). Understanding one's active place as part of a complex, interdependent ecosystem is a lesson worth reiterating at many critical junctures in life.

Further, teaching about the concept of lōkahi provides an opportunity to present a unified and sophisticated, versus a superficial, lesson about Indigenous holism. Rather than non-Natives supplementing a Western-framed "scientific" unit with a "quaint" or "legendary" Indigenous story as an amusing anecdote of an animate worldview that has been replaced, teachers can show the complementarity, and divergences, of these worldviews. Both have modern relevance and provoke deep, essential questions about the world and each provides popularly accessible visualizations of underlying ideas of continuity, interdependence, and the consequence of our actions.

How peoples have represented wisdom varies; therefore it is worth making the circular folk schematic embodied in the Lōkahi Wheel explicit to our students and peers. Place-based models often invoke layered boxes, pyramids, Venn diagrams, and other means of showing the cumulative or mutual relationship of domains. In many Indigenous epistemologies, circles are favored

visualizations that demarcate humans' right relationships with the movement of the sun, seasons, and year. They help convey the cyclical or nonlinear nature of natural and human life. (Porter 2015, Jacob et al. 2015, 265). By showcasing how Indigenous peoples have long seen their world as coherent and harmonious, students have a tangible illustration of how the parts of their lives can fit together. Explicitly citing Indigenous authors and looking to their visualizations for contemporary insight contributes to the analytical repertoires of all scholars. Teachers can also think of a local Wheel as nested within concentric circles of influence. Extension of the Lōkahi Wheel tangibly demonstrates how living pono reaps interrelated rewards, not just by giving back to one's homeplace but also by rippling its lessons outward to contribute positively to the larger global Commons. This example is not only an ancient intangible cultural heritage, but it lives on as a message with contemporary relevance.

Beyond its value as an example of circular, nonlinear ways of understanding the world, the Lōkahi Wheel is also a good pedagogical tool because it lends itself well to many K–12 subjects. From health and wellness to STEAM to civics, it reminds us that we need different kinds of community tradition bearers because they each model different ways of knowing. Each offers lessons in different ways of gaining expertise and contributing to a functioning community. The equal sizes teach that each domain is important, and that complex ideas like "the spirit of a place" depend upon legends as much as upon lagoons or leeward winds. Furthermore, this coordinated Wheel shows that we need to invest in many forms of community cultural wealth to foster well-being: familial, aspirational, linguistic, resistance, and navigational (Yosso 2005). It reaffirms a central tenet of folklife education, that is, respecting local wayfinders and pathbreakers and inviting them into schools to present as partners in the classroom.

In summary, lōkahi can be a particularly beneficial foundational concept in place-based education. Its value starts with the simple elegance of its most common representation, the Lōkahi Wheel. Using this encourages students to engage with modalities other than just prose writing and asks them to become ethnographers who can recognize meaningful symbols and tradition bearers in their local environment. Sharing their creations in a larger critique about interpersonal differences—and similarities—allows them to see one another, and perhaps their families of origin, in a new light as assets rather than deficits. Stepping back and considering all the wedges as part of a unified whole encourages them to see how their affiliations and skills can add up. Incorporating this deeper agenda into place- and culturally-responsive education could help teachers more effectively reach out to potentially disenfranchised students, to make the curriculum richer for all learners, and to make the contributions of CIPP more apparent to their colleagues, no matter in which level of schooling or where they teach.

Place, education, and culture are one. As a foundational concept, lōkahi encourages a holistic approach to appreciating spaces and cultural practices as integrated elements necessary for well-being and thriving. A shared principle of many place-based folklife programs is that youth must form a passionate and daring relationship with their immediate surroundings and cultures of origin to understand other neighborhoods that they might later inhabit. Lōkahi reminds us that we are all interconnected, and that starting where we are makes a big difference. That is why this is a good lesson for both Native advocates and non-Indigenous allies. We all have important work to contribute, starting where we each live. It is in our specific locations, cultures, and communities where we learn to look out by first looking within.

#### Piko

Piko is another robust concept that encodes many layers of significance in Native Hawaiian worldview and language. It points to the center, or the nexus, of mo'okū'auhau (genealogy, ancestral linkages, intergenerational connections) that span place and time. Having a strong piko enables students to remain centered within webs of relationships that can sustain and uphold them as learners and future community leaders. That is why we have chosen it as our second foundational concept.

A curriculum that honors piko situates youth within a human 'ohana. It also charges them with the kuleana of assuming their rightful, even righteous, place in an ongoing history of stewardship, which is itself a key tenet of most place-based programs. This sense of piko (McGregor et al. 2003) evokes the opening 'ōlelo no'eau, reminding listeners that they belong to an expansive, intergenerational chain of spiritual and emotional bonds "linked to a long line of progenitors, descendants and unborn future generations" (119). The piko aumākua (ancestral center) is the link to one's heritage, piko 'iēwe (placenta) represents first the bond between mother and infant and later the 'ohana, and one's connection to future generations is represented by piko'iwi kuamo'o (genitals). Since it can also be seen as an individual's generative center, at the crown of one's head where one's 'uhane (spirit) resides (Pukui, 1983), piko can provide a multidimensional approach to folklife grounded in specific places and committed to intergenerational survival. It highlights their rich inheritance and youthful, generative energy, asking the next generation to be initiators, not just observers and creators, not just consumers.

Just as with lōkahi, piko reveals dimensions of place-based folklife education in which the medium is also part of the message. Lessons about "centering" complement lessons about "balance."

# A Case Study for Indigenous-Inspired Science Education

At Hālau Kū Māna (HKM) charter school, young students work in the lo'i kalo (taro patches), voyage in their handmade wa'a (canoes) using traditional Native Hawaiian navigational techniques, and use 'ōlelo Hawai'i in authentic daily tasks. They learn from tradition bearers, not only from those teachers deemed qualified based upon criteria Western, state-sanctioned (Goodyear-Ka'opua 2013). They Indigenous modes of scientific learning from kūpuna and tradition bearers out on the land and seas. As in other place-based programs, they spend time during the school day dwelling with the 'aina to expand their knowledge by testing and observing (planting a garden to see how certain plants grow) and by caring for the ongoing well-being of the ecosystem (picking up trash or eradicating invasive species) (Smith 2002, 589). These practices and products help students to feel, at a deep personal level, the meaning of aloha 'āina. Indigenous-inspired science education works in ways that surpass the constraints of standardized tests or measures. They make place and culture come alive, and thus truly matter, to the next generation.

In charter schools across the islands, Native Hawaiian ways of knowing are at the piko. (Re)connecting mind, body, spirit to see, know, and act fosters a unified sense of purpose and place, of working for aloha 'āina (Meyer 2003, 57). We have chosen two extended examples that illustrate this point. They each embody CIPP's best practices: they model creative, critical pedagogies of learning by doing, challenge students to form a personal relationship with places, and offer hands-on ways of knowing.

Offering students authentic STEAM applications relevant to their local environment enables them to see that traditional skills can be valuable part of a scientific repertoire. As B. Marcus Cederström et al. (2016) found, they can also provide teachable moments of discontinuity and negotiation when Native educators and their allies work together for the complementary goals of critical scientific literacy and cultural sustainability. Like the wa'a built and paddled by students and tradition bearers at HKM, educators and their allies at the Lac du Flambeau Public School and the University of Wisconsin-Madison worked together as part of an extended residency to pass on the living traditions of canoe building and wild rice harvesting. Developing this curriculum taught the collaborators important lessons about how allies can honor Indigenous modes of doing science and how Native teachers can remain centered in tribal lifeways and worldviews. They learned that they needed to present canoe-based harvesting as an important legacy, one intrinsically tied to the prophecy that led Ojibwe to make their home in the land of wild rice, as well as a practical skill worth perpetuating. The project demonstrated to Native and non-Native communities that the folkways that grew out of this special location are of great value, and that both place and culture would survive only if both remained together at the center of the educational project. The authors provide wisdom about the savvy ways in which they designed the residencies, co-curated the offseason resting place of the canoe, and taught in culturally responsive ways. Their lessons about creatively co-documenting the process and the end products show how use of social media at each stage can leave lasting benefits for all involved, especially media-oriented new generations. By centering their praxis on educational sovereignty, they model the ways in which CIPP work can become empowering catalysts for decolonization "when returned to Native communities in ways that facilitate their reappraisal, re-adoption, and revitalization" (np).

The foundational concept of piko also highlights other relational ways of knowing that can enrich our application of CIPP as a centering praxis. In this, we are particularly drawn to Marit Dewhurst et al.'s (2013) illustration of how the concept of the piko can be incorporated into teaching via folklife apprenticeships. Their article is a second poignant illustration of the intersections of place and praxis, again both for the folklife practitioners and the practitioner researchers. Making pāpale (hats) woven of lauhala (pandanus leaves) is a heritage skill that grows from a practical need to shelter wearers from the bright tropical sun. Novices in this community of practice learn, as the title proclaims, that "in weaving you begin at the center." They discuss that teaching, and writing the synthesis article, about the right way to weave pāpale "allows us to cultivate knowledge, nurture meaningful relationships, and participate in a rich cultural legacy" (144).

Again, we see that humility, while investing in building right relationships and patiently glimpsing bits of traditional wisdom, goes a long way for novices, whether cultural insiders or non-Native allies. Using principles from folklife education, such as respect for others' ways of knowing and the importance of intergenerational communities of practice, helps students recognize the layers of deep knowledge tacit in such social activities. Incorporating Native Hawaiian cultural knowledge systems into lessons offers non-Indigenous students the opportunity to consider others' worldviews and cherished ways of knowing. Infusing hat-weaving sessions with mo'olelo about places, plants, and key people teaches students about the folksonomies that explain how the world is organized. By creating their very own material cultural artifacts, hats, that embody a centered, circular worldview, they have a tangible manipulative to illustrate how to see the world and their place in it. Such place-based, folklife lessons can help all students develop the capacity for

acceptance; by considering others' sense of place, they are prompted to think about the places that they also care about, and the practices that sustain these lifeways.

Critical Indigenous Pedagogies of Place affirm the importance of welcoming youth into nested communities of practice (Lave and Wenger 1991), those intergenerational circles of active practitioners who offer them a place in relationship to the Commons. They can see that they are part of a "long line" of local tradition bearers whose futures are connected. In tying off, we turn to Davianna McGregor et al. (2003) who provide an ecological metaphor that draws connections between individual well-being and the thriving of 'ohana, the wahi noholike i ka po'e (community, or the place where people live together), the lāhui (nation), and, ultimately, to the 'āina (106). These are interdependent; coming to know one's self and one's place within an 'ohana and a larger community offers lessons about how to relate to the larger world. Teachers who share this sophisticated Native Hawaiian concept share an important lesson. We begin at the piko, and, having a clear anchor, we then have the strength and supportive safety net to expand to reach out and weave our efforts with those engaged in intersecting efforts elsewhere.

#### Kalo

...the lo'i is my home
Up above is the sunshine, oh the sunshine
And the rain that helps us grow
And if I am transplanted
My 'ohana will remain

That's why I say,
Plant the seed today
Watch it grow tomorrow
Give the keiki love and they will grow up strong
Just like kalo...

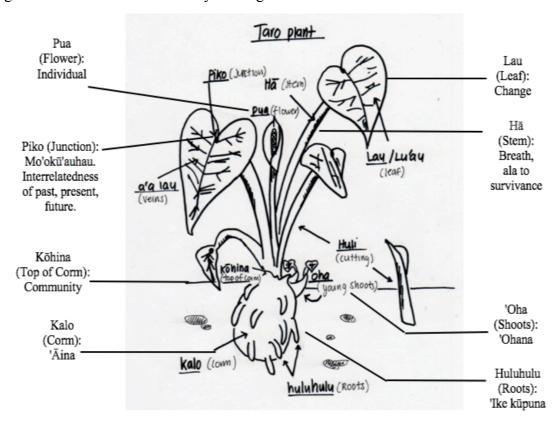
—Mele by Ryan Hiraoka (2016)

Now that we have presented the components of balance and centering as key to working toward aloha 'āina, we offer a useful pedagogical illustration that we believe will help teachers make the cumulative benefit more visible, literally and metaphorically, to learners. One of the most potent manifestations of living out aloha 'āina is the Native Hawaiian relationship with the kalo plant. Creating a cross-grade, interdisciplinary curricular arc that showcases the multiple layers of this essential foodstuff enables us to blend the two foundational concepts into a synthesis lesson about how to live pono with the 'āina.

Cultivated areas of kalo (*Colocasia esculenta*) are ubiquitous throughout the Islands' physical, symbolic, and educational landscape. It is a staple of extended 'ohana subsistence gardens. Hardy patches thrive in the face of capitalistic monocrop (e.g., pineapple or sugar cane) plantations, and in places they are being reintroduced where these export crops have been abandoned as no longer profitable. Schools, such as HKM, intentionally reclaim overgrown fields and rebuild extensive irrigation systems as part of their interdisciplinary STEAM curriculum (Goodyear-Ka'opua 2013). Noted institutions also carry on educational outreach programs that dovetail with schools' efforts, thus extending the impact of coordinated efforts to protect Native plants and lifeways. Botanical

gardens on Kaua'i such as the National Tropical Botanical Garden and the Limahuli Garden and Preserve use kalo to educate visitors and school groups about the legendary Canoe Plants and how we all can mālama i ka 'āina. These partnerships exemplify ways that formal and informal educators can join forces to decolonize spaces, moving sustainability and reinhabitation from the margins to the center.

We use the kalo here in the final section as a culturally perceptive way of illustrating consequential connections: those between the element to the balanced life, the center to the balanced whole, the individual to the community, the lessons from this one place to their applications in the global village. It brings together the previous two curricular building blocks of lōkahi and piko, illustrating how educators have intentionally created a multifaceted curriculum that cumulatively engages the whole learner in actively tending aloha 'āina.



The Kalo Plant.

Adapted from Anaina Hou and Kumu Kēhaulani Kekua (2018), http://anainahou.org/rooted-traditions-of-ohana

In form and function, cultivating kalo is akin to the larger project of cultivating aloha 'āina. Learning to nurture this iconic foodstuff teaches transferrable life lessons about the value of folk wisdom in reinhabiting endangered, exploited places. It is a deeply symbolic plant essential to the collective cultural livelihood of the Native Hawaiian people, the form of its various parts each contributing a functioning, interrelated system. Kalo nomenclature and cultivation embody the codevelopment of a sense of belonging and a sense of being an integral part of something larger than oneself.

Each kalo plant is a complex living organism, a form that Native Hawaiian place-based educators have used effectively as a teaching model for the healthy person grounded in community. Our diagram is a synthesis of several of these representations. Please note some of the etymological continuities across word-stems. The corm we label as 'āina, the foundation for Native Hawaiian existence and survivance. The huluhulu (roots) embody the 'ike kūpuna; it is through storing knowledge of genealogy, ancestors, and elders that the other parts of the kalo receive the cumulative nourishment needed to thrive. The 'oha (shoots) represent the 'ohana, the life source from which keiki and future generations begin to flourish. The kōhina (the top of the corm) is the community, where the stems of the kalo grow, collectively springing from one source. The word hā (also stem) literally means "breath," alluding to Indigenous insights into the flow of energy throughout a living system. Hā is the breath that carries energy from the huluhulu, 'oha, kōhina into the lau (leaf), the external manifestation of a healthy cultural and ecological substructure. Leaves (by extension, offspring) further collect energy from the sun, in turn restoring and replenishing the cultural roots.

Lo'i kalo (irrigated taro terraces) also provides lessons about function, modeling the diverse elements needed for thriving intergenerational communities. Just as growing keiki learn to embody their folklife traditions, George Kanahele calls for Native Hawaiians to reclaim their places, to know the oli (chants), inoa (names), and range of mo'olelo of the 'āina they are connected to, to love the parent 'āina as one would love a person (1986). Part of this sensibility is being able to sense the literal and metaphorical kinship that one has with the kalo, which represents Hāloa, the origin and resilience of Native Hawaiians that becomes implanted into Native Hawaiian consciousnesses. This is a special heritage that transcends physical space, accompanying Native youth wherever they go for work or further education.

Goodyear-Ka'opua discusses how nurturing kuleana in students is an efficacious form of teaching and learning, even one that is an essential act of cultural survivance. Mahi'ai kalo (harvesting taro) is an act of resistance. At an environmental and physical level, restoring the waterways that feed the lo'i kalo ensures self-sustainability and self-determination that counters the dominating overreliance on corporate, imported food. Mahi'ai kalo, secondly, creates hands-on "epistemological space, providing sources of theory, metaphor, and multidisciplinary, cross-cultural inquiry" (134). Last, kuleana at an individual as well as collective level, with peers, communities, and school-'ohana partnerships, gives students a holistic sense of lōkahi while working alongside others toward revitalization, all the while being pushed to a critical awareness of their own position and place within the broader movement of Indigenous survivance. This is CIPP in action.

There are additional lessons to learn from the kalo that teach keiki about the role of individuals within their homeplace and their community. Each person is an outgrowth of what has come before as well as the means for cultural continuity. The piko (leaf junction) is representative of mo'okū'auhau, or the genealogical linkage that represents the interrelatedness of the past, present, and future. This is where all parts of the kalo come together to enact change. Likewise, youth are offshoots of a larger ecosystem of people in motion. While non-Native students cannot lay claim to an Indigenous heritage, their teachers can show them that all kinds of people are needed as contributors, allies, and partners, and that their own unique sense of place already provides the strength that they need to be good neighbors.

This iconic Native Hawaiian plant also challenges Western, individualistic ideas about what makes something valuable. As such, it also provides teachers an alternative view of the importance of individual achievement or flowery test scores relative to the health of the community of origin. It suggests that we should widen our criteria for what counts, and refocus our attention on who matters. The pua (flower) represents the blossom of the unique individual. However, it is useful to note that in contrast to ornamental plants grown in Hawai'i for their showy flowers' value in the international floral trade, the kalo's primary contribution is as a nourishing staple for local consumption. It is a renewable resource, not just for display and disposal. The corm is ground up to make the hallmark purple poi. As a starch, it served as a main life source for the ancient Native Hawaiians and continues to be widely used today for poi and for kulolo (poi based desert), bread, chips, and so on. It is also a common diet for infants because of its rich vitamin content and digestive qualities. Kalo is reproduced through transplantation of the corm, as the pua cannot naturally pollinate. In fact, sometimes the pua can be seen and sometimes it cannot. Although we may be inclined to value a plant based on its pua, for the kalo it is common for the pua to be visually absent. The pua, or the individual, is not the focal point of the system. Rather, the pua is just one part of the whole.

As authors we have chosen to feature this synthesis curriculum to show how an extended set of units, even an entire orientation toward education based on hands-on lessons in cultivating an identity-defining plant, can nurture a critical, appreciative stance toward heritage and homemaking. Building on both balanced and centered lessons featuring lōkahi and piko, and nesting these under an overarching thematic arc of caring for kalo as living aloha 'āina, teachers can show that pono is not about a special week or guest tradition bearer, but that righteousness is an ongoing responsibility.

In sum, Noelani Goodyear-Ka'opua's ethnography (2013) vividly illustrates how a place-based curriculum designed around intentionally cultivating kalo folklore has helped students learn to respect themselves, their traditions, and Native Hawaiian ethnobotany. At HKM, students learn to enter a kalo field with respect, linking their labors with their (human and kalo) ancestors' resilience (129). Using the kalo to teach in schools, as well as in this synthesis, offers us opportunity to draw parallels between cultivation of this plant and nurturing keiki who will be capable, and proud, to malama i ka 'āina. We have learned that aloha 'āina is a collective effort. CIPPs that are linked to folklife remind us that na'auao is relational, rooted in 'ohana and community. How we contribute to learning and knowledge processes grows, like the kalo, out of the privileges, skills, and talents that we each bring from our kūpuna (Goodyear-Ka'ōpua 2013). Teachers are the caretakers, nourishing the tender offspring until they are sturdy enough to be transplanted and thrive elsewhere.

We need to honor our Native colleagues and to be good partners. No one individual can sustain the system alone. Quite the opposite, the system must sustain the pua. Even when a pua is not visible, the lau is gathering energy, the product of all the other parts of the kalo working together to ensure the cultural rootstock maintains its full potency and potential. The lau is the tangible juncture where efforts coincide, visible evidence that carrying out one's kuleana for the 'āina leads to empowering results. Native Hawaiian epistemology and ecology converge; place, folklife, and education are in harmony.

#### Conclusion

Aloha 'āina is a sense of love and connectedness to the land; it is the inspiration and aspiration of a place- and culturally-responsive education. For Native Hawaiians, this traces back to the 'āina hānau (birthplace or source) of Indigenous physical, spiritual, and relational being. Prior to colonization and occupation, 'āina was not something that could be owned. Rather, it was something one belonged to (Kanahele 1986, 129). We assert that this relational love has great value beyond Indigenous communities; indeed, it has much to teach learners living in many homeplaces. CIPP has the potential to develop sociopolitical consciousness for Native Hawaiian students, bridging awareness with action (Trinidad 2001, 188). It points to constructive ways to enact education for a more just and collaborative future. We need to be humble allies in sustaining and transforming our collective relationship to lands, seas, and other people.

Sustaining change requires us to have a shared goal of cultivating aloha 'āina. Our examples demonstrate the benefit of a balanced vision of lōkahi and of intentional practices of building on one's piko. As teachers we can use these concepts to help students identify a lasting, personal anchor point within a balanced circle of family and community. We can help them do this by offering critical pedagogies that are creative and fun, acknowledging Indigenous ways of knowing, and reconceptualizing the varied personal meanings of places. An ongoing spiritual and emotional relationship with the 'āina is the basis for being at home in the world. In the words of David Sobel (1996), "If we want our children to flourish, to become truly empowered, then let us allow them to love the earth before we ask them to save it" (39). Aloha 'āina is certainly about preserving, but more accurately and taking cues from Indigenous epistemologies, it is about sustaining. It can be more—reclamation and perpetuation, reinhabitation and reinvention.

Transforming requires us to add to, even replace, the repertoires that we bring to the classroom. We need to know and to share those stories and proverbs from Hawai'i that are public so that they are appreciated as sophisticated expressions of place-based Indigenous knowledge. Mo'olelo carry traditional wisdom forward across the generations, and although they have been threatened, or intentionally replaced, by political and historical narratives of "development" and "success" imposed by neocolonial agents, there are ways to enact kuleana rooted in 'āina to transform our educational systems (Kana'iaupuni and Malone 2006, 297). We can sincerely learn and appreciate, with full acknowledgment of their sources, traditional forms of testifying, dancing, singing, and legend telling. As teachers, we are in important spaces where we can re-center these living traditions in order to speak back and to contribute to decolonizing lands and minds.

Our article is a lau that grows from the kalo; it is our hope that this will provide even more energy for offshoots that will take root in multiple places. As a multidisciplinary approach that integrates social sciences, humanities, and natural sciences, CIPP points to best practices that can be strategically beneficial for both Native advocates and non-Native allies. Ethnographic studies demonstrate that Indigenous place-conscious education works in tandem with folklife to reframe critical spaces of contestation and survivance, calling for both individual and collective efforts to cultivate a comprehensive aloha 'āina.

The authors wish to acknowledge the profound ways in which the places where they grew up and the people who steward those places have shaped their orientations toward culture, folklife, sustainability, social justice, and the larger purposes of education.

Maureen K. Porter grew up along the banks of the Sugar River in rural Wisconsin between the Mighty Mississippi and the Great Lakes. Generations of strong and innovative women crafters, farmers, 4-H leaders, and teachers continue to model community building and investing in education that is deeply tied to beloved places and social justice. She is Associate Director of the Institute for International Studies in Education at the University of Pittsburgh and Associate Professor studying culturally responsive and sustaining pedagogies around the world, particularly in partnership with Indigenous communities.

Nik Cristobal's lineage stems from the islands of Kaua'i and O'ahu, Hawai'i. She was born and raised on Kaua'i, one of the strongest factors that shapes her worldview. A PhD student in the Social and Comparative Analysis in Education program at the University of Pittsburgh, her research interests include critical race, ethnic, and gender studies, decolonizing methodologies, and minoritized student experiences in higher education.

# Glossary of Terms\*

Aloha 'āina: Love, care, devoation to the land Lō

'Āina: Land

'Ike kūpuna: Knowledge of and from ancestors and

elders

Kalo: Taro Plant Keiki: Children

Kuleana: Responsibility

Kūpuna: Elders/ ancestors

Lau: Leaf

Lo'i kalo: Taro patches

Lōkahi: Balance, harmony, unity

Mālama i ka 'āina: To sustain or care for earth

Mele: Song

Mo'okū'auhau: Genealogy, ancestral linkages,

intergenerational connections

Mo'olelo: Stories/ narratives/ histories

'Ohana: Family

'Ōlelo Hawai'i: Hawaiian Language

'Ōlelo no'eau: Proverb

Piko: Center

#### **Works Cited**

Cajete, Gregory. 1994. Look to the Mountain: Ecology of Indigenous Education. Durango: Kivaki Press.

Cederström, B. Marcus, Thomas A. DuBois, Tim Frandy, and Colin Gioia Connors. 2016. Heritage Repatriation and Educational Sovereignty at an Ojibwe Public School. *Journal of Folklore and Education*. 3: 31-41. <a href="http://www.locallearningnetwork.org/heritage-repatriation-and-educational-sovereignty-at-an-ojibwe-public-school">http://www.locallearningnetwork.org/heritage-repatriation-and-educational-sovereignty-at-an-ojibwe-public-school</a>.

Corntassel, Jeff and Cheryl Bryce. 2012. Practicing Sustainable Self-Determination: Indigenous Approaches to Cultural Restoration and Revitalization. *Brown Journal of World Affairs*. 18.2: 151-162.

Cravey, Altha J. and Michael Petit. 2012. A Critical Pedagogy of Place: Learning Through the Body. *Feminist Formations*. 24.2: 100-19.

Deafenbaugh, Linda. 2018. Developing the Capacity for Tolerance through Folklife Education. PhD diss., University of Pittsburgh, <a href="http://d-scholarship.pitt.edu/id/eprint/33691">http://d-scholarship.pitt.edu/id/eprint/33691</a>

Dewhurst, Marit, Lia O'Neill Moanike'ala Ah-Lan Keawe, Marsha MacDowell, Cherie Okada-Carlson, and Annette Ku'uipolani Wong. 2013. Ka Ulana 'Ana i ka Piko (In Weaving You Begin at the Center): Perspectives from a Culturally Specific Approach to Art Education. *Harvard Educational* Review. 83.1: 136-274.

Glisan, Elieen W. and Richard Donato. 2017. Enacting the Work of Language Instruction: Higher Leverage Teaching Practices. *The Language Educator*. 12:2: 50-53.

Goodyear-Ka'opua, Noelani. 2013. *The Seeds We Planted: Portraits of a Native Hawaiian Charter School.* Minneapolis: University of Minnesota Press.

Gruenewald, David. 2003. The Best of Both Worlds: A Critical Pedagogy of Place. *Educational Researcher*. 32.3: 3-12.

He 'Upena o ke A'o: Culturally Responsive Classrooms. 2008. Connect Culture with Learning: Lōkahi Wheel. *Center on Disability Studies*. Accessed June 18, 2018, <a href="www.cds.hawaii.edu/heupena/strategies/connect/strategies/strategy04.php">www.cds.hawaii.edu/heupena/strategies/connect/strategies/strategy04.php</a> Hiraoka, Ryan. 2016. *Plant a Seed Today*. Rubbah Slippah Productions LLC., song.

<sup>\*</sup>This glossary provides basic translations that are incomplete as the full meanings behind these words are difficult to translate. However, this glossary is intended to be a quick reference for terms that are used frequently throughout the article.

- Hou, Anaina and Kumu Kēhaulani Kekua. Hāloa: The Deeply Rooted Traditions of 'Ohana. 2015. *Anainahou Community Park*, December 10, <a href="http://anainahou.org/rooted-traditions-of-ohana">http://anainahou.org/rooted-traditions-of-ohana</a>.
- Jacob, W. James, Sheng Yao Cheng, and Maureen K. Porter, eds. 2015. *Indigenous Education: Language, Culture and Identity*. Dortrecht, Netherlands: Springer.
- Kana'iaupuni, Shawn M., Brandon Ledward, and 'Umi Jensen. 2010. *Culture-Based Education and Its Relationship to Student Outcomes*. Honolulu: Kamehameha Schools.
- Kana'iaupuni, Shawn M. and Nolan Malone. 2006. This Land Is My Land: The Role of Place in Native Hawaiian Identity. *Hūlili: Multidisciplinary Research on Hawaiian Well-Being*. 3.1: 281-307.
- Kanahele, George H.S. 1986. *Kū Kanaka Stand Tall: A Search for Hawaiian Values*. Honolulu: University of Hawai'i Press.
- Knapp, Clifford. 2005. The "I-Thou" Relationship, Place-Based Education, and Aldo Leopold. *Journal of Experiential Education*. 27.3: 277-285.
- Lave, Jean and Etienne Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Lindo, Cecilia. 1980. The Spirit of 'Ohana and the Polynesian Voyagers. *Polynesian Voyaging Society and Kamehameha Schools*, http://archive.hokulea.com/ike/moolelo/ohana.html.
- Lipe, Kaiwipunikauikawēkiu K. 2014. Aloha as Fearlessness: Lessons from the Mo'olelo of Eight Native Hawaiian Female Educational Leaders on Transforming the University of Hawai'i Mānoa into a Hawaiian Place of Learning. PhD diss., University of Hawai'i-Mānoa.
- Louv, Richard. 2005. Last Child in the Woods. Chapel Hill: Algonquin Books.
- McGregor, Davianna P., Paula T. Morelli, Jon Matsuoka, Rona Rodenhurst, Noella Kong, and Michael Spencer. 2003. The Ecological Model of Native Hawaiian Wellbeing. *Pacific Health Dialog.* 10.2: 106-28.
- Meyer, Manulani A. 2003. Hawaiian Hermeneutics and the Triangulation of Meaning: Gross, Subtle, Causal. *Social Justice*. 30.4: 54-63.
- ---. 2001. Our Own Liberation: Reflections on Hawaiian Epistemology. The Contemporary Pacific. 13.1: 124-48.
- Nāone, C. Kanoelani. 2008. 'O ka 'Āina, ka 'Ōlelo, a me ke Kaiāulu," *Hūlili: Multidisciplinary Research in Hawaiian Well-being.* 5: 315-39.
- Paris, Django. 2012. Culturally Sustaining Pedagogy: A Needed Change in Stance, Terminology, and Practice. *Educational Researcher*. 41.3: 93-97.
- Porter, Maureen K. 2015. The 2015 Smithsonian Festival: Constructing Durable Bridges Between the Americas. *The Smithsonian Center for Folklife and Cultural Heritage*.
  - https://cdn.ymaws.com/www.afsnet.org/resource/resmgr/Best\_Practices\_Reports/Porter\_Smithsonian\_Folklife\_.pdf
- Project Aloha 'Āina. 2009. Pacific American Foundation, http://ulukau.org/gsdl2.81/cgi-bin/cbalohaaina4?l=haw.
- Pukui, Mary Kawena. 1983. 'Olelo No'eau: Hawaiian Proverbs & Poetical Sayings. Honolulu: Bishop Museum Press.
- Sidener, Diane. 1997. Standards for Folklife Education: Integrating Language Arts, Social Studies, Art, and Science through Student Traditions and Culture. Immaculata: The Pennsylvania Folklife Education Committee.
- Smith, Gregory A. 2002. Place-Based Education: Learning to Be Where We Are. *Phi Delta Kappan.* 83.8: 584-94. Sobel, David. 1996. *Beyond Ecophobia: Reclaiming the Heart in Nature Education*. Great Barrington, MA: Orion Society.
- Solórzano, Daniel G. and Tara J. Yosso. 2002. Critical Race Methodology: Counter-Storytelling as an Analytical Framework for Education Research. *Qualitative Inquiry*. 8.1: 23-44.
- Theobald, Paul and Jim Curtiss. 2000. Communities as Curricula. *Forum for Applied Research and Public Policy*. 15.1: np.
- Trask, Haunani-Kay. 2000. From a Native Daughter: Colonialism and Sovereignty in Hawai'i. Honolulu: University of Hawai'i Press
- Trinidad, Alma M.O. 2001. Sociopolitical Development Through Critical Indigenous Pedagogy of Place: Preparing Native Hawaiian Young Adults to Become Change Agents. *Hūlili: Multidisciplinary Research in Hawaiian Well-being*. 7: 185-221.
- Vaughan, Mehana Blaich. 2016. He Lei Aloha 'Āina. In *Kanaka 'Ōiwi Methodologies: Mo'olelo and Metaphor*, eds. Katrina-Ann R.K.N. Oliveira and Erin K. Wright. Honolulu: University of Hawai'i Press, 43-52.
- Vizenor, Gerald. 2008. Survivance: Narratives of Native Presence. Lincoln: University of Nebraska Press.
- Yosso, Tara J. 2005. Whose Culture Has Capital? A Critical Race Theory Discussion of Community Cultural Wealth. *Race Ethnicity and Education*. 8.1: 69-91.