About the Cover Photo: Students in Thomas DuBois’ Snow Challenge class document snow at the University of Wisconsin–Madison with Siftr, a freely available data collection and visualization platform allowing users to upload and geotag images and record and share associated notes and field observations (see “Siftr: A Tool for the Folklore Classroom,” Vol. 5[1]: 13-29).

Journal of Folklore and Education (ISSN 2573-2072)

A publication of Local Learning: The National Network for Folk Arts in Education

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The Journal of Folklore and Education is a peer-reviewed, open-access journal published annually by Local Learning: The National Network for Folk Arts in Education. Local Learning links folk culture specialists and educators nationwide, advocating for full inclusion of folk and traditional arts and culture in our nation’s education. We believe that "local learning"—the traditional knowledge and processes of learning that are grounded in community life—is of critical importance to the effective education of students and to the vigor of our communities and society. JFE publishes work representing ethnographic approaches that tap the knowledge and life experience of students, their families, community members, and educators in K-12, college, museum, and community education.

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2019 Journal of Folklore and Education: Call for Submissions  
This JFE special issue, The Art of the Interview, will include work that illustrates how to do an interview, why use interviews as a part of one’s curriculum, and what can be done with completed interviews.
When someone asks, “What is your sense of place, where do you belong?,” what do you conjure? Each of us experiences a place differently based on our relationships, interactions, and memories. We call upon different senses as well. Some might recall sights or smells vividly, while others situate themselves through sounds, touch, or taste. Many of us cast back to childhood associations with place. A sense of place may be shared, as in regional distinctiveness and family identity, or acutely individual, a nuanced personal consciousness.

Social scientists such as folklorists, anthropologists, and cultural geographers are attuned to place as a nexus of cultural, economic, environmental, historical, and interpersonal forces. Writers evoke place as a vital element in many literary genres. Visual artists depict place in myriad fashions. Thus, educators may employ a variety of disciplines to teach sense of place. This theme is valuable to students because they can ground their cultural identity more firmly, learn that others have a different sense of place and thus deepen understanding, and connect the local to the regional and the global whether in literature, history, economics, the arts, the sciences, or folklore studies. Calling upon our sense of place also opens us to ecology, nature, special places, and distinctive terms that enrich us and bind us to others more explicitly.

In addition to the many books, articles, and conversations about today’s children in the U.S. being too removed from the outdoors, at the same time the British nature writer Robert Macfarlane is addressing the loss of words relating to nature. In a recent edition of the Oxford Junior Dictionary, he found a list of words removed to make room for others (Oxford Dictionaries 2012; Macfarlane 2017, 3). Words like acorn, fern, otter, and wren—replaced by blog, broadband, celebrity, and committee. Macfarlane writes beautifully, luring readers into arcane categories of words related to what he calls “place-terms,” words that belong to regions, occupations, navigation, agriculture, rambling, weather, science, folklore.

When the head of children’s dictionaries at [Oxford University Press] was asked why the decision had been taken to delete those “nature words,” she explained that the dictionary needed to reflect the consensus experience of modern-day childhood…. The substitutions made in the dictionary—the outdoor and the natural being displaced by the indoor and the virtual—are a small but significant symptom of the simulated life we increasingly live. Children are now (and valuably) adept ecologists of the technoscape, with numerous terms for file types but few for different trees and creatures. For blackberry, read BlackBerry. (Macfarlane, 3)

With the illustrator Jackie Morris, Macfarlane takes on the anti-nature lexicon by writing poems about words lost from that dictionary, poems accompanied by lavish drawings (Macfarlane and Morris 2017).
Terms for elements of nature and geography contribute to sense of place. Such words may be generic—valley or ground hog, for example—and others unique to locals—holler or whistle pig. While a mapmaker may mark a place by one name, residents may know it by another.

Sense of place as a form of inquiry defines our relationships to the environment as well as to others in ways that promote equity. It takes us out of the classroom and into the world, giving young people agency and a voice for what they want for the future of their communities and the world. In addition to calling attention to local geography, landscapes, and ecology, integrating sense of place into formal and informal teaching promotes cultural stewardship. No matter where we live, we have an aesthetic relationship with the land and landscapes, although we may often be unaware of it and the landscape may be vexing rather than idyllic. In the belief that calling upon that relationship to ground young people in a personal sense of place extends our vision into the wider world with empathy and inquisitiveness, we offer three activities to evoke what Robert Macfarlane calls place language, to kindle a pedagogy of place, and to share ways we are alike and different. From here, this looks like me.

Paddy Bowman, Founding Director of Local Learning, co-edits the Journal of Folklore and Education.

Editors’ Note: We would like to share drawings, poems, and other projects that these activities inspire on our Local Learning website. Please contact pbbowman@gmail.com to learn details.

Works Cited

Practicing Cultural Stewardship
Culture influences ways of learning and creates and strengthens communities. Understanding the complexity and power of culture gives young people agency. Cultural stewardship teaches students to understand their personal cultural identity as well as that of their families, schools, neighborhoods, and communities. They are encouraged to observe, listen, document, and work closely with individuals and communities. Doing so will help them to identify, protect, and enhance their important traditions, ways of life, cherished spaces, and vital relationships to each other and the world. Cultural stewardship also encourages intercultural skills and tolerance of differences.
Classroom Connection: Grounding Identity in a Sense of Place

This lesson helps students and people of all ages ground themselves in a personal sense of place as part of individual and community folklife. The quote below is an apt one to read aloud to students or to paraphrase in opening discussion of identity and sense of place.

If one pursued the documentary methods and looked at facts in their full particularity, as though for the first time, one found no entity to call America. Instead, there were regions, though again if one looked hard enough, the regions gave way and one had communities—which themselves became, on further scrutiny, classes, factions, groups. In short, documenting America turned up such an abundance of what one educator called “localized information” that no generalization with teeth or vigor held. Each town became so unique that the main thing that joined it with the next was the road.*

Objectives
Students will:
- Explore a process for discovering and writing about connections among identity, place, and experience;
- Use tools of folklife study (close observation, point of view, sense of place, and ethnography) to gather and synthesize information;
- Discover that folklife study inspires self-discovery, identity, and cultural awareness and deepens critical and creative thinking;

The teacher introduces the lesson by telling students about a personal place of significance. In general discussion, students are asked to describe a place of significance to them. Next, the teacher shares a drawing of his or her chosen place and tells why it is important (see example from author below).

After students complete their sketches, they pair off and tell the stories of their sketches to their partners. Optionally, the partners ask three questions about the drawing; the storyteller should chart the questions, but not respond to them. (Questions posed but not answered give the storyteller practice in also being a listener, and they help to build insights via another’s perspective.) Partners switch roles. A group-share follows if time allows.

Through this process, students have used several tools of ethnography: probing sense of place and self-identity, sketching, sharing stories, listening carefully, questioning thoughtfully, and fostering insights.

My Sense of Place Drawing
Paddy Bowman

Although my family moved away when I was 16, when someone asks, “Where are you from?,” I say, “East Tennessee.” Never mind that I’ve lived in beautiful, interesting places since. For many, our sense of place is locked in by late adolescence, and with it visceral memories of sights, sounds, smells, tastes, and textures. The memories I have of my hometown come from years of childhood walks in our streets and alleys. On any landscape, I look for the low blue-green mountains that lay north of us—and rarely find them. The scent of creosote from our several railroad trestles takes me back to hot summer afternoons when friends and I walked under them en route to daily adventures. I never eat a pear without envisioning the pear tree in our side yard, and the buzz of bees and wasps that beat me to the ripened fruit. The river that bordered the town was often a milky green. I pictured happy fish there, not realizing that the paper mill’s lethal discharges regularly killed off aquatic life. Our lakes were cleaner and plentiful, and the feel of soft lake water holds far more allure for me than any ocean. The sound of trains was a constant night or day, as was the daily noon whistle.
Classroom Connection: Writing Sense of Place Poetry

Poetry provides a creative way to consider place. Darrell Bourque, a Louisiana poet laureate, often evokes place in his poetry. He shares his poem “Holly Beach,” on the next page, with JFE readers.

The teacher or a student may read this poem to introduce sense of place poetry. Afterward, ask some questions:

What do you notice in this poem?
What about the poem suggests a strong sense of place to hold the writer’s experience there?
What sensory references does the writer use to help the reader share his experience?
Where do you imagine yourself at age 10?

Optionally, students may respond to the poem by creating a landscape drawing to fit it or choreographing a dance to tell the story of the poem.

Poetry Prompts
--Students may begin by listing some important places where their memories are strong. Ask them to select one place and brainstorm sights, sounds, smells, textures, activities, thoughts, and feelings they associate with the place. They may call upon these elements as they write a place poem. Students may want to write a poem calling on their personal explorations of place through their sketches from Activity 1 and the process of sharing their stories. For example, did a partner's questions tweak a deeper memory or inspire a new insight?

--Introduce the concept of “place-terms” and brainstorm terms associated with nature and local places. Ask students to choose one term as the subject for a short poem. The teacher or a student may read Robert Macfarlane’s poem “ivy” to introduce this assignment.

    ivy
    I am ivy, a real high-flyer.
    Via bark and stone I scale tree and spire.
    You call me ground-cover; I say sky-wire.

    —Robert Macfarlane

Invite everyone to read their poems aloud!
HOLLY BEACH, 1952
by Darrell Bourque

I was ten when my parents brought me to the beach for the first time, and it was somewhat hard to tell what of this greyish brown was sand and what was water. There was clearly something happening in the line where the horizon was supposed to be, some curve I knew from land and how it met the sky. I was not completely unfamiliar with rhymes the earth itself teaches the young who look and measure, with strands that finally knit themselves into some kind of rope of meaning, fine distinctions that merge into larger being. But I had never had to stand by myself before something I could walk into like this, could climb into, it seemed to me, as the gulf shaped itself into this bulge, a grand stilled opacity that did not even look like water. I had surely primed myself to bravery as parents and aunts and cousins and sisters fanned behind me in their own play. But when the water finally surged around me, I was ten, sought someone to put me right again, pull me from this dizzy sea.

Classroom Connection: Exploring Cultural Perspectives on Place

Folklife, geography, ecology, history, economics, literature, and verbal arts are all entwined in defining regionality—what makes a place unique. Sense of place may be examined through various lenses, or cultural perspectives, listed below. Choose some or all of the categories to develop a worksheet for students to survey how these elements contribute to the local sense of place. Working individually or in teams, students may document different cultural perspectives to combine into culminating projects such as maps, podcasts, essays, poetry, visual art, music, dance, or drama scripts. For each category they might choose one word to summarize what they have captured to serve as a prompt for writing a poem, an essay, or a podcast. (See graphic organizer on p. 122.)

**Language and Dialect** What languages or dialects are spoken?

**Foodways** What events take place in which food or food preparation is important? Where are the places where local produce is sold, the local food hang-outs, a locally owned restaurant?

**Music and Dance** Where do people go to hear music or dance? What events in everyday life or special events include music or dance? Think, for example, about lullabies, campfires, playground songs, school fight songs, weddings, birthdays.

**Geography, Ecology, and Environment** Where is the place located? What is the population? Climate? What are some important landforms like rivers, ponds, mountains, prairies? What plants and animals are found in the area? What are important human-made features such as roads, bridges, dams, canals, reservoirs, malls? How do these affect plants, animals, and humans?

**Landscape and Land Use** Where are parks, playgrounds, farms, businesses, industries, neighborhoods, and towns?

**Soundscape** What does the place sound like? What are the natural sounds, the human-made sounds?

**Religions** What religions are practiced? Where are religious activities held? What events are associated with places of worship or religious beliefs? What are the places in the community where religious activity occurs?

**Crafts, Decorative Arts, and Material Culture** How are local buildings constructed and decorated: ironwork, brickwork, terra cotta, murals, etc.? How are gravestones decorated in local cemeteries? How are crafts used within events or how do they contribute to a distinctive sense of place? How are crafts learned and the skills passed on? Are there places where material culture is particularly evident?

**Customs, Celebrations, and Festivals** What are major events? Is there a festival, homecoming or reunion, fair, pageant, parade, or procession? What about events associated with the cycle of life such as birth, coming of age, marriage, death? What are the places where these events traditionally occur?
**Seasonal Round** What events always occur at a particular season of the year? Who takes part in events? Where do these activities occur? Whose place is it?

**Oral Narrative Genres** Are there jokes, stories, tall tales, legends, riddles, proverbs, folktales, and anecdotes about the area? Are there events or places where you can hear these narratives? Are there narratives about local places or events? What about stories of important events in local history, or how national events affected people in the community?

**Family Names and Place Names** Are there family names common to the region? How did places in the area get their names? What informal names do people use for places?

**Ethnic and Other Folk Groups** Who lives in different neighborhoods? Are there many newcomers or immigrant groups?

**Occupations and Occupational Folklife** What are the work-related skills: the knowledge, customs, traditions, stories, jokes, music, and lore of different jobs or occupations?

**Settlement History and Patterns** Who lived here first? Who founded or named the place? Where did some current ethnic groups in town come from? Where did they/do they live? What brought them here? What did/do they do for a living? What groups are new to the area? Where did they come from?

**Directions:** Select a place and list it in the center hexagon. Select categories of cultural perspectives from the box below and enter them in the remaining hexagons. Brainstorm specific ideas related to the place in each category and list them around the hexagons.

**SAMPLE CULTURAL PERSPECTIVES**

**GRAPHIC ORGANIZER**

---

**Cultural Perspectives**

- Language and Dialect
- Music and Dance
- Landscape, Land Use
- Religions
- Customs, Celebrations
- Oral Narratives
- Ethnic and Folk Groups
- Settlement History, Patterns
- Foodways
- Geography, Ecology, Environmental Soundscape
- Crafts, Arts, Material Culture
- Seasonal Round
- Names – Family, Place
- Occupations
As we consider the theme of this special issue, “Common Ground: People and Our Places,” we recognize that we are all living on Indigenous homelands. In our case, our university—the University of Oregon—is on k’alapʰuya iliʔi (‘Kalapuya lands’, from Chinuk Wawa), the Indigenous homeland of Kalapuya peoples, who were forcibly removed in the fervor of westward expansion that took place in Oregon. We begin with an acknowledgement of place because we have a commitment to honoring Indigenous knowledges, which are place-based wisdom and tied to Indigenous homelands (Jacob 2016). We come together to write this article because of our shared interest in Indigenous Traditional Ecological Knowledge (TEK), an important, growing field of research and methodology that advances educational sovereignty and decolonization efforts (Cederström, DuBois, Frandy, and Connors 2016; Jacob and Blackhorn 2018). While folkloristic discourse typically includes traditional knowledge, cultural expressions, skills, practices, aesthetics, and sensibilities passed on from person to person within folk groups in an informal context, TEK refers very specifically to the issues that emerge when researchers work with Tribes, Tribal councils, Tribal members, Native American knowledge, and First People’s heritage traditions. Therefore, TEK projects may be a part of folklore research but may also

This article represents decades of ongoing collaborations with Indigenous peoples. We offer wholehearted thanks to all community members and co-researchers who have helped with these projects over the years. For the Yakama Ichishkiin project, we acknowledge and thank project co-PI Phil Rigdon, and Elders Levina Wilkins and Dr. Virginia Beavert as advisors, co-researchers, and Ichishkiin language and culture specialists. We acknowledge the support of the National Science Foundation (NSF), Ichishkiin/Sahaptin (yak): Language Documentation of Natural and Cultural Resources. NSF DEL Grant #BCS-1064459 (Janne Underriner, PI). We also acknowledge support of the 2017 Interdisciplinary Award in the Humanities and Social Sciences (Jacob, PI) funded by the Office for Research and Innovation at the University of Oregon through the support of the University of Oregon Foundation, which funded the Indigenous Traditional Ecological Knowledge (ITEK) initiative that brought us together to collaborate on this manuscript.
emerge across many fields, both academic and public, from History and Linguistics to Environmental Studies and Political Science, from Food Studies to Education and more. Through collaborative authorship, this article provides cross-disciplinary examples of TEK projects to illustrate today's best practices for keeping Indigenous peoples and knowledge at the center of such research and teaching. In doing so, we embrace the common ground that we collectively share as colleagues working with TEK at the University of Oregon. In this paper, we briefly discuss TEK literature and then provide examples of how we place TEK at the center of our work.

**Traditional Ecological Knowledge**

TEK is inherently place-based, as it draws from the Indigenous knowledges rooted in Indigenous cultures and homelands and is held as a sacred gift from the Creator since time immemorial (McGregor 2004, 390). Traditionalists are hesitant to provide a definition of TEK, which may impose colonial thinking into sacred spaces, which includes many aspects of knowledge and relationships (Ibid.). This acknowledgement of TEK brings forward the creation stories and stewardship of Indigenous peoples in relation to their ancestral land and in solidarity with the natural world (Ibid.). TEK is an ideal way to draw multiple perspectives into solving regional and global issues by weaving together TEK with Western scientific and academic knowledge (Turner and Spalding 2013, 388). Specifically, place-based educational approaches ground students’ experiences in their communities and are inherent with TEK by tying into ancestral land. With community at the center, students learn their people’s core values as they relate to culture, land, food, religious traditions, history, and language (Smith 2002; Gruenewald 2003; Jansen, Underriner, and Jacob 2013). Cajete (1994) discusses that the purpose of traditional education in Native cultures is to connect young people deeply to their heritage and their physical homelands. Traditional stories are cultural cornerstones in Indigenous societies, and “contain much traditional wisdom, especially lessons about how to be” (Beavert and Walker 1974, vi). Many legends present a lesson or moral and are closely tied to a geographical location or feature. Warm Springs Tribal Elder George Aguilar discusses the relationship between legends and locales: “Nearly every geographical point along the Columbia River Gorge had a legend that told about the rocks, hills, fishing locations, rock formations, talus slides and so on” (2005, 225). As described in TEK, a place-based framework connects learners to what is essential to their community and to the ways of their ancestors.

Each example of our work, detailed in case studies below, models place-based education, which involves “practices and purposes that can be connected to experiential learning, contextual learning, problem-based learning, constructivism, outdoor education, Indigenous education, environmental and ecological education, bioregional education, democratic education, multicultural education, community-based education, critical pedagogy itself, as well as other approaches that are concerned with context and the value of learning from and nurturing specific places, communities, or regions” (Gruenewald 2003, 3).

**Data: Examples of Our TEK Teaching and Research**

Before we examine individual projects as case studies for using TEK in research and teaching, we must first recognize that documentation is a form of cultural displacement, or what folklorists refer to as decontextualization. Recording a traditional story or taking photos of handmade regalia takes the cultural asset from its home place (in the voice of the teller, on the body of the practitioner) and displaces it onto a foreign medium (a magnetic tape, a celluloid strip, an SD card). In this new
medium, the displaced asset gains mobility through its new digital home. Its potential to reach new audiences—public and academic—expands exponentially as it now moves with ease to archives or the Internet. What the asset gains in transience and audience, it arguably loses in relation to less tangible but no less valuable qualities like rootedness, intimacy, lineage, and the controversial concept of authenticity. Critical film theorists (e.g., Christian Metz, The Imaginary Signifier, 1975) argue that this kind of displacement makes it easier for end users to objectify and marginalize unconsciously what we observe on screen. In the above examples this means cherished heritage assets—a sacred song, a beaded yoke—and the cultural meanings they hold, are at risk of unintentional abuses made possible through documentation and display. This paper steers that kind of philosophical inquiry away from a phenomenological discussion and instead toward the practical steps that academic and public sector professionals can and should take when undertaking TEK research, from planning to collecting, and including control and access, to mitigate risks and foster best practices. Below we share five examples, each from a different perspective, about our approach to TEK research and teaching.

Part 1: TEK and the Oregon Folklife Network
by Emily Hartlerode

The Oregon Folklife Network (OFN), the state’s designated public folklife program, is fortunate to work with Oregon’s nine federally recognized Tribes in our mission to document, support, and celebrate Oregon’s diverse cultural traditions. Situated at the University of Oregon (UO), OFN conducts folklife fieldwork that engages with communities, organizations, and Tribes to increase public awareness about Oregon’s living cultural heritage. Through these efforts, we generate primary research materials of interest to our host institution and to other educational institutions around the country and globe. Our partnerships with Tribes and interactions with Tribal members continually remind OFN's non-Native staff about the special steps necessary with regard to ownership of and access to the traditional knowledge we document and/or preserve through our work. Our 2012-2014 collaborations with the Confederated Tribes of Warm Springs (CTWS) laid an excellent foundation for best practices that I refer to here as TEK methodology. This seemingly straightforward digitization project—to transfer existing analog media (reel-to-reel tapes) in the CTWS archives for improved preservation and access—needed special care. The content was priceless: Audio reels contained smoke songs, legends, pow-wows, and Tribal Council meetings in at least three tribal languages. Tribal staff were vital for this work: Indigenous expertise was critical for understanding the content and creating accurate metadata; and considerable content was not appropriate for outsiders to hear. Yet lack of technical expertise had already resulted in errors during prior inventories; some reel tapes had snapped, and one was accidentally recorded over.
Through many face-to-face conversations and follow-up conference calls with CTWS Culture and Heritage Language director Valerie Switzler, those involved determined that Nathan Georgitis of the UO Libraries should install an audio preservation workstation at the CTWS archives, and then provide a weekend training in audio archives management to Tribal staff person Dallas Winishut. Georgitis remained available throughout the project period for phone and email consultation, and he returned once more for on-site support. As a result of this process, the Tribe hired Dana Creston Smith who far exceeded the goal to digitize 40 hours of reel-to-reel sound recordings.

OFN staff members joined the project to serve as documentarians and to raise public awareness about TEK and digitization. OFN collaborated with UO Libraries to submit two successfully funded proposals from the Oregon Heritage Commission. CTWS earned continued funding and has digitized over 1,000 hours of audio and video to date. However, collaborators' commitment to maintaining CTWS as project lead, and our agreement to channel project resources and ownership to the Tribes was challenged, mostly because of how these priorities diverged from the usual ways the larger bureaucracies involved typically function.

For example, many audio preservation projects outsource technical services to paid providers. This one sought to install the requisite technologies and develop the necessary skills within the Tribes. Doing so made it possible for the Tribes to retain control of the process and its outcomes; this process also created sustainability, building the skills and resources to continue the work. This was problematic for University Sponsored Projects Services, the grant oversight division whose staff were unused to using University-earned grant funds to purchase equipment for non-University entities. Although OFN required little more than an explanation to move forward, I cannot overstate the value of a pre-existing commitment among collaborators to justify clearly and easily the partnership's priority: to respect Tribal authority regarding the stewardship of Tribal knowledge and to empower the Tribes with the resources to continue the project's work once the grant had closed. Without that TEK commitment, the project risked conforming to the standard practices of a university office, not the collaborators' goals.
Public funding brought another kind of contradiction. Publicly funded projects often require public products as outcomes. An access project of this kind would typically improve public access to the newly digitized archival content. CTWS, however, could not guarantee that the collection they prioritized for digitization would be appropriate to share. The grant officer at Oregon Heritage Commission understood the dilemma but could not waive the requirement. With a little creative thinking, we came up with an alternative product, and OFN published a short video about the project's cultural significance and Georgitis developed two how-to guides for sound records management and inventory assessment, all useful for other sound archives.

The video allowed Tribal members to protect potentially sensitive cultural content and guarded against the voyeuristic objectification of Native culture that can come from sharing sensitive cultural materials. Without nuanced interpretive context, the value of such materials can be lost on a general public. Instead, Tribal participants themselves spoke about the importance of this historic content being unlocked from the archives; the video enabled them to raise public awareness about the Warm Springs collection, the history that created it, and its value for language revitalization and other cultural efforts.

The project succeeded because it established Tribal leadership early in the collaborative process, a key criterion for endeavors intended to preserve Tribal knowledge. By connecting in person often, naming Tribal participants as project leaders, and articulating Tribal-centric goals, solutions are more readily available to help all of us stay the course. Through these relationships with Tribal communities, public folklorists and others working in collaboration with Tribes learn more about our combined histories and the confluence of cultures in which we live today.
Part 2: TEK and Indigenous Language Documentation in Linguistics

by Joana Jansen

Language documentation is a subfield of Linguistics concerned with collecting audio and video records of the languages of the world (Austin 2014, Himmelman 2006, Woodbury 2003), making long-lasting resources that can be put to many uses beyond describing and analyzing languages: learning and teaching language and culture; understanding history and natural and cultural resources; preserving and making accessible anything Elders deem important to record and preserve. Language documentation includes making accessible heritage or archival materials that have not been widely accessible because of physical, financial, or institutional barriers. As discussed above, however, to whom materials will be accessible needs to be addressed with every project. For the work described here, important features of language documentation are accountability for the data, an interdisciplinary focus, and involvement of speech community members. Collaboration and access are part of the project design, not a secondary consideration. Particularly when a community has few remaining Elders who grew up speaking their Indigenous language, goals of teaching the language and documenting the knowledge of the Elders go hand in hand, and documentation projects ideally proceed with revitalization as a core value (Jansen and Beavert 2010; Jansen, Underriner, and Jacob 2013; Yamada 2011). In our work, we find that Indigenous language cultivation and revitalization is central to TEK. In this section, I describe how language documentation projects can center Elders’ TEK and maintain appropriate distribution guidelines. Local narratives such as legends, recollections of earlier times, or descriptions of places enhance classroom lessons and are rich in TEK. As well, Indigenous languages allow the expression of concepts that may not be possible to express in another language.

A recent project recorded Ichishkíin-speaking Elders of the Yakama Nation discussing the broad themes of places and cultural/natural resource management. Elders spoke about their homeland and the changes they had seen in their lifetimes regarding foods, hunting practices, and particular plant resources. One Elder spoke of growing up in the mountains, near the timberline, with aunts and grandmothers. Their remote living depended on gathering, fishing, and hunting small game. Another Elder spoke of a wetlands, identifying some plants found there and speaking of their uses and importance. Another talked of root gathering and root foods. The project also included previously collected legends and narratives told by Mary Eyley, Sam Eyley, Jr., Sam Eyley, Sr., and Joe Hunt, collected by Melville Jacobs (1929, 1934, 1937). Materials were transcribed and translated, and we compiled mentions of landforms, place names, plants, and animals. This showed the rich interweaving of particular resources throughout texts. For example, nank (cedar) is an important resource for basketry made from its roots and bark, and has medicinal and purifying purposes. It is used in constructing shelters and for fires. Nank also plays a role in legends, in one rescuing Coyote as Coyote floats downstream, unable to get out of the river’s flow, and in another as an Elder teacher to a young woman.

Via the project, Tribal resource managers can heed Elders’ words and use them to be better stewards. The project allows us to describe and understand the Ichishkíin language better. This improved understanding in turn supports curriculum development of materials that are being used in language and Linguistics classes. Recently, students of a University course on language revitalization worked together to document wák’amu (camas, a root food) identification, life cycle, gathering, preparation, and preservation and to build teaching materials from their documentation,
including the illustration included here. Elders in a language class for speech community members
and Tribal and non-Tribal University students subsequently reviewed and added to what the first
class had built. Additional resources to enhance the curriculum come from the previously
collected legends from the 1920s and ’30s that mention camas locations and preparation.

The language embeds the TEK of those who speak it. Several Elders have said to me that Ichishkiin
is a descriptive language, and that the words present a picture or scene in a way that English cannot.
This richness is found in part within the structure of the verbs themselves, and the ways the Elders
describe places and processes. Verbs have an intricate structure and can include many prefixes and
suffixes, each contributing a particular meaning. The verb describing an action such as scraping a
hide or sweeping a fishing dipnet embeds the way a person’s arm moves as they carry out the
activity. An Elder carefully teaches, “Achaxwiitkaam pyа̱̱ixin (You slip the skin off bitterroot)”
(Beavert and Hargus 2009, 26), using a verb (chaxwiitk-) that contains the pulling and slipping
motion needed to take off the skin and prepare the root for eating. The language reflects these
important TEK processes. As we are guided by the Elders in what to document, and what of that
documentation to share, we have the privilege of contributing to teaching and learning TEK as
well.

Part 3: Place-Based Learning Supports TEK in the Classroom or Institution
by Janne Underriner

Place-based learning integrates the traditional, cultural, and ecological knowledge of the local
community and facilitates increased involvement by the community in its implementation
(Blanchard 1999; Gay 2000; Nee-Benham, et.al. 2000). A traditional or place-based learning
approach is collaborative and compatible with the way information was transmitted historically
(prior to the 1870s when education in schools became federally imposed) as learning includes
Tribal Elders, community members, and leaders, often outside the classroom on the Reservation
and ancestral lands.
Place-based learning was introduced to me in 2000 by Tony Johnson, then the Culture Education and Chinuk Wawa Language Program Manager at the Confederated Tribes of the Grand Ronde Community of Oregon. Tony’s lifelong expertise in the cultures, languages, arts, and materials of the people of the Northwest Pacific Coast guided our development of place-based curriculum and materials. Most curriculum we had written previously included TEK principles since it was influenced by or written with Tribal Elders and speakers and centered in place and traditional lifeways. But now we were intentional in placing TEK as core to the curriculum. Tony and I engaged literature on place-based education and visited Neskowin Valley School, an independent, nonprofit elementary school in South Tillamook County, Oregon, to learn how this type of learning worked on the ground. We wanted to develop programs for language revitalization that, at their core, would revolve around place-based learning.

In developing place-based curriculum, we keep in mind larger cultural and place-based learning objectives: fostering respect for traditional lifeways; practicing lifeways now and carrying them into future; and integrating cultural processes into one’s life. We also align units, lessons, and materials to cultural and academic standards that meet both Tribal and school district requirements. We begin with identifying curricular thematic unit ideas. Curriculum units are centered around traditional lifeways (cedar, juncus, hazel basketry), animals (beaver, elk, deer, condor), Elders past and present in the community, storytellers, roots (camas), fish (salmon), berries (huckleberry, salal), acorns, canoes, and caretaking of land and water.

Next, team members (possibly teachers, Elders, curriculum writers, a linguist, and science, language arts, and cultural specialists) brainstorm ideas to develop a thematic curriculum web that provides supporting interrelated themes, the unit’s required language, the scope and sequence of lessons, and accompanying materials and resources (people as well as objects).

For example, the unit on hazel (Corylus cornuta var. californica) was inspired by a storybook created by Chinuk Wawa learners (youth and Elders) who desired that the processes of hazel basketry be taught and documented for the CTGR community's learning. Of note here is that the curricular hazel unit was developed because of a request to the Cultural Education Department from learners and is an example of a collaborative relationship.

Since 2000, the Northwest Indian Language Institute (NILI) at the University of Oregon has partnered with the Confederated Tribes of the Grand Ronde Community of Oregon (CTGR) to develop and implement place-based learning curriculum focused on language arts, ethnoscience, social studies, history, and math skills development at the Tribe and at Willamina Elementary School. Writing for these projects early on was met with support as funding agencies were looking to support educational research that integrated academics, culture, and place or community with Native language. Projects have been supported by the Administration for Native Americans, the U.S. Department of Education, and Spirit Mountain Community Fund. We argue that an interdisciplinary place-based learning experience rich in culture that includes the community supports the well-being and identity of Native youth.

See a developing place- and culture-based curriculum example at http://nili.uoregon.edu/resources/curriculum.
In designing the curriculum, the teaching-curriculum team brainstormed a thematic web that identified the hazel unit’s lesson components as 1) plant identification, 2) location, 3) gathering, 4) processing, and 5) weaving and use. Lessons and materials were developed for each component from new and previously collected materials. In particular, Tribal archival photographs and photos and video generated from community hazel basketry workshops and classes formed the basis of how-to pictorial books that teach each process; students and Elders in the Chinuk Wawa Immersion pre-3rd-grade classrooms wrote and illustrated storybooks about hazel identification, gathering, and weaving. Curriculum is taught seasonally so students are easily able to relate their learning to their environment. They learn what hazel looks like at all points during the year and where it grows. Gathering and processing hazel is taught and experienced in the early spring when the sap is running throughout the tree. Basketry patterns are learned as math graphing activities focusing on shape and color; peeling hazel bark can be taught as science lessons on climate and temperature. Learners come to know hazel basketry form, pattern, and function by understanding which basket to weave based on its use: digging, picking, or gathering roots or berries; storing food; cooking food; or collecting or boiling water. Traditional stories, songs, prayers and protocols enrich learning and link learners to weavers in their community past and present, and to ancestral lifeways.

Our achievement of creating meaningful place-based learning curriculum depends upon the collaboration of NILI faculty and Chinuk Wawa teachers, CTGR Tribal administration, Culture Resources Department and cultural specialists, Education and Cultural Education managers, grant writers/administrators; linguists; Elders, ethnobotanists, and cultural lifeways’ specialists; science, math, and language arts teachers; Willamina School District administration; and funders. Truly, the project is one of multi-communities and entities working together, and it is this participation and investment of resources that has ensured the authenticity of the curriculum and its relevance to learning and place.

One can say then, the strength of culture- and place-based learning is that it is collaborative and allows for relationship and trust building over a period of years. Projects that hold Indigenous partners at the center must include time for relationship building. Place-based projects “concerned with context and the value of learning from and nurturing specific places, communities, or regions” (Gruenewald 2003, 3) must have at their center relationship building, as they hold at their heart the traditions and teachings of communities and Elders.

Part 4: TEK, Legends, and Teaching

by Michelle M. Jacob

From an Indigenous perspective, Tribal Elders are our most revered teachers. Yet, we rarely see Tribal Elders represented in university classrooms or as authors of textbooks. This means universities too often are perpetuating a trend of ignoring or minimizing Indigenous cultural expertise and Indigenous teaching and learning methodologies. How can we undo this legacy of harm? One way is to place Indigenous Elders’ wisdom at the center of curriculum. In this section, I describe how I use legends from Tuxámshish Dr. Virginia Beavert’s book, Anakú Iwachá, in my university-level Education Studies classes. For example, in Fall 2017, students read and analyzed five legends selected in consultation with Tuxámshish, a Yakama Tribal Elder. Students’ final assignment was to work in groups to dramatize the legends in a public performance Tuxámshish attended. Students reflected on their experiences learning and
performing the legends and wrote their reflections in journals. Several students volunteered, via Institutional Review Board (IRB) consent forms with the option to have their real name used or not, to have their journals analyzed for this project, including the two excerpts shared below.

Students gained a valuable TEK education, including an understanding of Indigenous pedagogies, from the experience. For example, one non-Native student wrote:

The first thing that stands out to me…is that our storytelling is necessarily communal. Many, many papers get written that end up being read by only one or two people, often with very little care. Our performances are different in that we will be communicating to an audience and have had to prepare for the performance as a community…This type of assignment shifts the focus from individual attainment of knowledge to a communal production/sharing of knowledge. I appreciate the embodied nature of playacting and the temporary community it produces. It’s been really nice to interact with my classmates outside of the classroom and to have someone to share responsibility with.

My goal is to treat the act of storytelling with the same amount of effort as writing an academic paper, but this can be difficult in that I’ve been conditioned to treat storytelling as less serious than academic work. The great thing about storytelling though is that you can’t fake anything. With academic work it’s easy to rely on jargon or quotes from sources without really understanding what you are saying…I think the difference between the two projects represents something I’ve been thinking about with regard to how I might bring a [decolonizing] approach to environmental education. On one hand, educators need to center Indigenous voices and the stories that Indigenous people tell about the land. At the same time, educators need to challenge/deconstruct the harmful logics of capitalism, settler colonialism, and white supremacy. I feel more comfortable in this more critical space, and it seems to fit more naturally in this academic environment. The challenge for me is to be less critical and more productive in terms of establishing relationships with Indigenous communities, learning and centering better ways of being in the world. There is a tendency for me to critique, critique, critique, and then call it a day. In many ways I think it’s a way of isolating myself and not being present in my scholarship.

The student’s quote above is a rich analysis of the students’ experience with Indigenous pedagogies and research methodologies that emphasize the communal value of knowledge production, as well as accountability to Indigenous communities. The student contrasts the “normal” classroom experience of writing a paper with focusing on “critique, critique, critique” without feeling responsible to identify and enact “better ways of being in the world.” The student grapples with assumptions that Indigenous stories and storytelling methodologies are “less serious” or less rigorous than “normal” academic work that is sometimes done with “very little care.” However, the student draws from personal experiences to identify how Indigenous pedagogies and methodologies are in fact serious and demanding; the student experiences a sense of responsibility and connection that otherwise was not present in the student’s academic work.
Another student, James, reflected on the power of Indigenous stories connecting him to place and helping him sharpen his vision for his work as a future teacher:

Each of the stories I read, listened to, or discovered along the way helped me flesh out and begin to feel the history that is lost in most modern education….Each one of these began to weave the tapestry of a people I have overlooked….Learning about proper stewardship of the land and our responsibility not just as citizens but people who want to see a brighter tomorrow, it is our responsibility to look after the land that we have been born onto. These lessons are important for us to pass down to the next generations.…

This term I have also sat in on a few talks and school meetings about graduation rates and the real secret behind some of the statistics of minority groups and Native students as to why they are failing or dropping out of school. It has been saddening to see how little regard some people have for these students, and it will be our responsibility to change that. I have met many teachers who are about to retire that are tired of carrying this burden and think that no change will come. I have to reassure them, if and when I meet them, that change is not that far away.

In his reflection, James acknowledges that his educational experience has allowed him to overlook Indigenous peoples and that Indigenous history is lost in modern education. Importantly, James discusses the embodied aspect of education, noting he is beginning to “feel the history that is lost in most modern education.” It is notable that James takes this learning experience, through which he and his classmates are using their bodies to affirm the stories, presence, and history of Indigenous peoples in enacting the legends, not only to learn but also to claim responsibility to care for Indigenous homeland and continue sharing these teachings with the next generations. Thus, storytelling becomes a pedagogical method that can help decolonize education (Jacob 2013). In James’ reflection, he connects his critique of the status quo education system to an empowered vision that he can make a difference in the lives of his future students as well as to a broader vision of systemic change that shifts the reality of poor educational attainment for Native students. James thus firmly grasps his responsibility to help make change; he connects a valuable TEK teaching that caring for Indigenous homeland and challenging structures that oppress Indigenous peoples are intertwined forms of social justice activism.

Throughout the term, I intentionally included readings and activities that would focus on TEK content and methodologies, including storytelling. Storytelling and close observation are favored pedagogical methods within Indigenous communities and are the methods Tuxámshish discussed most when she spoke with students about her traditional upbringing by her elders. These methods require an interpersonal approach, as students cannot rely on standard methods of cramming in isolation to learn material upon which they will be tested in an exam or paper.

One underlying question to this work was: How do we teach students about developing a respectful relation to place? One of my goals was for students to internalize teachings within the stories and carry them forward in their future work as teachers and environmental educators. All the students in the class I am discussing identify as non-Native; however, I would argue that these teachings are important for all students. For Indigenous students, embracing stories as important scholar
content as well as a critical pedagogy/methodology is empowering because it affirms Indigenous identity and decolonizes the curriculum by honoring and valuing Indigenous knowledges. Within predominantly white institutions, such as the University of Oregon, I primarily teach non-Native students, and I find that TEK and Indigenous stories in particular help my students learn the value of TEK, Indigenous methodologies, and Indigenous pedagogies. At the center of this work is an understanding of the importance of respectful relation and accountability. In both student journal excerpts, we see that TEK has a powerful impact on students’ learning. Students experience TEK as a way to connect with Indigenous place-based teachings, and this informs their ideas of their future work as both students and professionals. Legends and traditional Indigenous stories can be an effective tool for using TEK in the classroom.

Tribal Elder and spiritual leader Wilson Wewa engages students in Northern Paiute history and storytelling during the Fall 2015 field research trip to the Warm Springs Reservation.

Photo by Jennifer O’Neal.

Part 5: Engaging Undergraduates in Indigenous Research Methodologies

by Jennifer R. O’Neal

Over the past five years, my colleague Kevin Hatfield and I have been honored to teach the research colloquium “Decolonizing Research: The Northern Paiute History Project.” This course and multi-year project embody a formal collaboration and partnerships between the University of Oregon Robert D. Clark Honors College and the Northern Paiute communities of the Confederated Tribes of Warm Springs and the Burns Paiute Tribe in the Northern Great Basin of Central and Eastern Oregon. Anchored by the annual research colloquium, the accompanying field research trip to the Warm Springs Reservation, and sustained engagement among undergraduates, Tribal Elders, and community member course partners position students to perform original research, learn new ways of understanding and learning, and create new knowledge with the guidance and knowledge of Tribal community members. The course espouses the values of community-based, intercultural, decolonizing, multidisciplinary research, and authentic discourse among Native and non-Native students, historians, and scholars.

The foundation of our course is a decolonizing research methodology that centers an Indigenous research paradigm within Indigenous Traditional Knowledge Systems. This ensures that Indigenous perspectives are respected, we share our research with Indigenous communities, and we follow appropriate ethics protocols, such as those outlined by Linda Tuhiwai Smith (2012), who explains that:
Indigenous methodologies tend to approach cultural protocols, values and behaviours as an integral part of methodology. They are “factors” to be built into research explicitly, to be thought about reflexively, to be declared openly as part of the research design, to be discussed as part of the final results of a study and to be disseminated back to the people in culturally appropriate ways and in a language that can be understood. This does not preclude writing for academic publications but is simply part of an ethical and respectful approach. There are diverse ways of disseminating knowledge and of ensuring that research reaches the people who have helped make it. Two important ways not always addressed by scientific research are to do with “reporting back” to the people and “sharing knowledge.” Both ways assume a principle of reciprocity and feedback. (Smith 2012, 15-6)

This methodology is further reinforced by one of the many thinkers inspiring the pedagogy of our colloquium—Eva Marie Garroutte and her concept of “Radical Indigenism” articulated in her book *Real Indians: Identity and Survival of Native America* (2003). Garroutte contends:

> By asking scholars to enter (rather than merely study) Tribal philosophies, Radical Indigenism asks them to abandon any notion that mainstream academic philosophies, interpretations, and approaches based upon them are, in principle, superior. The demand that researchers enter Tribal philosophies cannot stand by itself. If the adoption of those philosophies is to be something more than mere appropriation and exploitation of Native cultures, it must be accompanied by researchers entering Tribal relations. Entering Tribal relations implies maintaining respect for community values in the search for knowledge. This respect is much more than an attitude, it requires real commitments and real sacrifices on the part of those who practice it. (Garroutte 2003, 107)

With this ethical framework in mind, the instructors explore how, historically, the educational system, and often particularly the writing and teaching of history, has functioned as a site of oppression, assimilation, and ethnocide controlled by dominant culture voices and misrepresentations. Consequently, students examine how the course research projects could challenge triumphalist, military, and imperial paradigms and avoid functioning as an act of appropriation or neo-colonialism—in other words, the practice of extracting, alienating, and distributing knowledge for uses and purposes external to the Indigenous source community. Rather, we wanted students to understand the importance of their academic research to the Tribal communities, the role it fills in the scholarship, and then, as a form of reciprocity, share the papers with the course partners and larger Tribal communities.

Within this context of collaboration, students participated in an apprenticeship in the historian’s craft designed to offer an inquiry-based intellectual space fostering discovery, curiosity, empathy, and reciprocity. The instructors and course partners co-constructed a body of research questions with particular meaning for the Tribal communities, encompassing the broader themes of identity, indigeneity, sovereignty, self-determination, resistance, rights, and restoration. We also established a protocol for shared decision making about research agendas, modes of inquiry, categories of analysis, dissemination of knowledge, and philosophies of scholarship. These
research protocols confronted the dichotomy between the authorized “academic expert” and the “subordinated subject” and worked in good faith in the challenging and promising enterprise of intercultural exploration and the seminal research insights it may yield.

A two-day field research trip then embodies the transformative centerpiece for undergraduate learners and places students in direct dialogue with Tribal community partners. The field research trip physically and intellectually immerses students in the culture and history they are studying and also encourages them to think critically about the way they have conventionally learned history and how their research dovetails with the larger purposes of the course. According to one student, “This trip is an essential part of truly understanding the process of decolonizing history...engaging and interacting with the Tribal community and writing about what matters to them.” Another noted that the experience “made the relevance and importance of our projects come to light...I now feel encouraged to work even more diligently on the research because we have met those whom it is very important to.” The group dialogues also generate new questions such as how to incorporate the multiple viewpoints and truths presented from Tribal members and how to negotiate differences and contradictions between documentary primary sources and oral history testimony and living memory. The course unpacks these questions throughout the term by providing guidance on how to examine and construct meaning critically from often divergent historical evidence—especially for the Northern Paiute history that has been historically misrepresented in secondary sources.

Students work closely with community partners and receive feedback and mentorship on each step of their research papers through sustained contact with the partners via the field research trip, class visits on campus, conference calls, and written correspondence. This community-engaged learning throughout the course helps students understand that, as Wilson Wewa, Warm Springs Tribal Elder and spiritual leader, told us “most of the books and history that have been written that are in libraries ...is not our own history, it has been a diluted history based on writings from the military, from the federal government, from the state government, and the Indian agents. With dedicated researchers and students, they are the ones that want to know the truth, they are the ones that are unlocking those doors of change. The more that we realize that there is a true history out there that needs to be unlocked, the more opportunities we have to go in a positive direction of helping one another and understanding one another” (Wewa 2015). Myra Johnson Orange, Warm Springs Tribal member, Indigenous language instructor, and course partner, similarly reflected, “[The class] puts real the history of our people because you hear the things but you never put it all together like a big puzzle. There’s bits here, bits there...well the puzzle’s coming together now based on the research that I’ve been reading. Ah, now I understand why, or now I see things that I never really understood before. So, I think it’s important for me at this age to finally put puzzles of my history together, based on the research done by this class and the students just gives me thrills and chills (Johnson Orange 2015).
This integral engagement with Tribal community partners and visiting scholars has propelled students to signature achievements and recognition of their scholarship. Students have received various undergraduate research awards for their papers and have presented at multiple conference sessions across the state and the country. To date, the course has generated 74 original research papers, one documentary film, and four Clark Honors College theses. Over the past two years we sponsored these students through the full IRB approval process with the University of Oregon Research Compliance Office, as well as research approval from the Confederated Tribes of Warm Springs through the Culture and Heritage Committee and Burns Paiute Tribe through their Tribal Research Ordinance.

Tribal Elders Wilson Wewa and Ruth Lewis share Northern Paiute stories with the class overlooking the ancient Northern Paiute site of the legends “Animal Village,” “Monkey Face,” and “Giant Numuzo’ ho,” Fall 2013. Photo by Kevin Hatfield.

After five years of teaching this course to undergraduates, we have learned important lessons that have helped us to refine the course each year. We stand in solidarity with the educational sovereignty recommendations that Cederström, DuBois, Frandy, and Connors (2016) have published and hope that the lessons we share may be useful to others as they begin important meaningful Tribal community-engaged research projects.

**Tribal community and course partners must always be at the center of the project guiding the initiative.** We see ourselves as the facilitators of the project, but the Tribal Elders and partners have the expert traditional knowledge of their history, lifeways, and people who guide it. In addition, they know the intricacies of their communities, what complex politics may be going on, and with whom we should speak to regarding Tribal history. First and foremost, they should always be in the driver’s seat of the project.
Introducing non-Native undergraduates to an Indigenous research paradigm and Indigenous ways of knowing is challenging and takes time. Often many students come into our classes with little to no knowledge of Native American history, let alone knowledge of Oregon’s Tribal history, and how Indigenous peoples understand their history, culture, and community, which are centered around relationality. This is essentially a new way of learning and understanding the world, and it will take undergraduates time to understand this history and ways of knowing and to be confident using this methodology. Thus, ensure that you allow significant time in the term and curriculum to introduce, examine, and engage with this type of methodology and different ways of knowing. We suggest that such research projects be broken down into two courses: one that covers Indigenous research methodologies as a prerequisite and a second in field work and engagement with the community. Taking this additional time and slowing down the process ensures this work is done ethically and provides a more meaningful process for students who are committed to doing this research and making a difference in these communities.

These types of projects should be ongoing and long-term. We entered this partnership with our Tribal community course partners knowing this would be a long-term, sustained relationship that would evolve over numerous years. We knew our purpose was to ensure that the Northern Paiute history did not remain hidden in the margins of Oregon’s Native American history. We wanted to bring awareness of their history, lifeways, and culture to the fore. We are committed to taking this project wherever they choose and will continue to do so as long as possible.

Fall 2016 Honors College class with Tribal course partners. Front row third from right, Myra Johnson Orange, James Gardner, and Wilson Wewa (on far right) at the Kah-ne-ta Resort, Warm Springs Reservation.

Photo courtesy Jennifer O’Neal.

Conclusion
Across each of these five examples of TEK research and teaching, we engage the tools of TEK in the diverse fields of Folklore, Linguistics, Education, and History. Underlying each example is a commitment to the following key TEK research principles: 1) relationship building is essential for successful TEK research and teaching; 2) Tribal partners must have the authority to decide the scope and content of TEK used in projects; 3) partnership building takes time, and all projects should be ongoing to meet the needs of Tribal partners. In each example we shared in this paper, we engage these key principles in diverse ways: in thinking creatively about how to meet the demands of funders while privileging the preferences of Tribal partners; assuming the responsibility to document and teach endangered Indigenous languages; following the lead of Tribal partners in determining the priorities of a research or teaching project; using published materials and working with students to create additional resources such as storytelling.
performances; or documenting and synthesizing Tribal histories that empower communities and Tribal Elders. Each example allows a different insight into using TEK in teaching and research and upholds Native pedagogies (Cederström, DuBois, Frandy, and Connors 2016) that are rooted in Indigenous cultural teachings, lifeways, and traditions.

In this paper, we have found common ground among a diverse set of colleagues at the same university who are all engaged in ethically researching and teaching about TEK issues with Indigenous communities. In the process of writing this paper, we have learned from one another and gained inspiration in one another’s approaches to TEK research and education. Although our projects and experiences are each unique, we find commonalities in our commitments to our TEK principles of building strong ethical collaborations with Indigenous communities through our values of respect, reconciliation, and reciprocity, with the goal of upholding educational sovereignty. To accomplish this work, we focus on centering Indigenous traditional knowledges in our research and teaching to ensure that Tribal perspectives, culture, and lifeways are privileged and rooted in their communities. We challenge ourselves, and others, to continue building strong collaborative partnerships, accessing resources to benefit the TEK visions of Tribal communities, and to support one another in these dedicated efforts toward decolonization. In the end, it's about respecting and building strong relationships with the Indigenous people whose lifeways, culture, and traditions we are honored to help preserve and share.

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Emily West Hartlerode, MA, is Associate Director of the Oregon Folklife Network. She has produced documentaries ranging from women rock musicians to male inmate crochet communities. Her work for OFN is promotional, as with the National Park Service Honoring Tribal Legacies, and educational, as with the Confederated Tribes of Warm Springs Sound Preservation Project, which received an Oregon Heritage Excellence Award (2014) and the American Folklore Society’s Brenda McCallum Prize (2015). She writes and manages grant projects, including the Traditional Arts Apprenticeship Program, and serves regularly on grant panels, planning committees, and conference panels.

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Janne Underriner, Director of the Northwest Indian Language Institute, has been active with language preservation and revitalization issues in the Northwest since 1996 and co-founded the NILI in 1997. She works with speakers and learners of Native languages to support language teaching and development of cultural and place-based language curriculum and language assessment. As faculty at the University of Oregon, she teaches language revitalization courses in the Department of Linguistics. Her research focuses on the role of academic institutions in teaching Native languages; cultural- and place-based learning; culturally responsive teaching; and collaborative research models originating from Tribal communities and academic institutions.

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URLs
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Mark Wagler is a retired 4th- and 5th-grade teacher, former professional storyteller, folklorist, and now a consultant and writer. Raised Amish-Mennonite in Ohio, Wagler worked many jobs before settling into public school teaching at the age of 43 in Madison, Wisconsin, where he quickly became known as a profoundly engaging teacher. His classroom looked little like conventional classrooms. There were no desks, but rather couches, tables, and an enormous amount of equipment and materials; the classroom didn’t face forward, but rather clustered in a number of circles; Wagler didn’t primarily teach by instruction, but rather by embracing the power of unknowing and the innate curiosities of his students.

Wagler’s innovative pedagogical techniques in the science classroom are rooted in inquiry-based learning, local learning, and interdisciplinary methodologies. None of this would have been possible without his deep training in the humanities. This radical redesign of his own classroom led him to win the 1996 Presidential Award for Excellence in Mathematics and Science Teaching.

As guest editor of this environmental humanities issue of JFE, Common Ground: People and Our Places, I sat down with Wagler in early June 2018 in his Madison home to talk about how he understood the relationship between local culture and the sciences in his classroom. What follows is an abridged and edited version of this conversation. We spoke about his journey, his inquiry-based science curriculum called “I Wonder,” how classrooms could be like prisons, and how we as educators can create liberating learning environments.
Tim: Can you say a few words about your professional journey into teaching?

Mark: My first year of teaching, when I was 19, I taught high school geometry and American literature in a small Amish-Mennonite school, just over the hill from where our family lived out in the country. Since then I’ve taught in quite a few settings, urban and rural, public and private, traditional and progressive, from preschool to graduate school, and from religious education to artist residencies. That includes a cooperative family daycare, primary grades in an alternative school, college English, graduate education courses for teachers on using storytelling in language arts and the social studies, and working in more than 700 schools as a storyteller. For four years, I did research at the University of Wisconsin–Madison on how and what middle-school students learn when they use augmented reality games played on mobile devices to study local places.

T: When did you start in the Madison school system?

M: In 1987, I decided I didn’t want to live on the road as a storyteller. I just needed to be home more. Since I already had my degree, I went through a fast-track teacher certification program, which took less than a year. I taught for three years at Glendale School on the Southeast side. From 1990-2006 I taught at Randall Elementary School, which is our own neighborhood school.

T: Could you characterize your core curriculum?

M: Folklore was explored everywhere, especially in social studies, where we balanced texts for required study of U.S. and Wisconsin history with our primary focus—extended investigations of what we called “local culture,” an integration of history, geography, economics, political science, and expressive culture. Students documented family and neighborhood culture for homework, and the whole class used classroom interviews, frequent fieldtrips, and design projects for yearlong cultural tours. In science, we combined student investigations based on their questions with observations of their backyards, the Randall Outdoor Classroom, biweekly Mornings-in-the-Marsh, and our Living Machine (a complex classroom system of connected containers that modeled multiple habitats and species in the marsh).

Mornings-in-the-Marsh
Mark Wagler routinely took his students out of the classroom to a Lake Wingra marsh within walking distance of the school. These fieldtrips supported all kinds of interdisciplinary curricula, including scientific observations, drawing plant specimens, service learning, and writing poetry and fiction about some aspect of the marsh. The lake critters they observed during these half-day field labs were regularly brought back to the classroom to incorporate into their Living Machine – and sometimes later used for I Wonder projects.
**T:** What did your studies of culture and nature have in common?

**M:** In both social studies and science students experienced real-world, place-based learning; in-depth, hands-on inquiries; extended documentation of what we discovered during our inquiries; analyzing patterns and uncovering complex systems; representing our research through many media; and probing areas where nature and culture overlap, such as health, beliefs, and sustainability. Our investigation of the world was bifocal: Whenever possible, we looked at the world both through the lens of STEM (Science, Technology, Engineering, Math) disciplines and the equally important complementary lens that I call LACE (Language, Art, Culture, Experience).

**T:** But you had little training in the sciences, right?

**M:** When I was getting my teaching credentials, the only science methods class I took was an independent study focused on what was back then called “children’s science.” The idea was that to teach science well, teachers first need to know the concepts their students have, and how they reason with these concepts, before we design curriculum to improve their understanding.

You know, in other fields, I’ve had so many real-life work experiences. Related to the social studies, I researched history articles for *Encyclopedia Britannica*, worked as a folklorist and community organizer, did neighborhood planning. In language arts, I’ve taught writing at a community college and have been a storyteller, freelance writer, and co-editor of a newsletter for alternative schools. Relevant to mathematics, while writing sections of a parks and recreation master plan, I immersed myself in statistical data collected from an extensive community survey. But with science, I didn’t know where to go.

I was already in the habit of creating curriculum in my storytelling residencies, but I just didn’t see that I could create anything lively in the sciences. So, in my first few years of teaching in Madison, I used standard science textbooks, with their “cookbook” experiments. They were the least lively thing I taught!

So very quickly, I began to focus on science … first just to learn for myself. I really wanted to work with the idea of students as scientists. I created an exercise in which students looked with curiosity at the natural world and wrote sentences beginning with “I wonder …” “I wonder what causes the breeze that’s blowing in the window, and why sometimes the breeze will come and then pause and then come again.” “I wonder why something falls when I drop it.” They were emerging questions about nature, really. Then students used these sentences to form questions that can be answered by collecting data and developed procedures that generate relevant data. There was an engaging quality to all of this: Kids liked creating experiments to answer their own questions.

Gradually the “I Wonder” curriculum emerged, replacing our textbooks. Student engagement and learning flourished. As I transferred methodologies from disciplines I was fluent in—especially social studies and language arts—to the area in which I felt most inadequate, I reframed my ignorance about science to experiencing my curiosity as a strength.

“I wonder what causes the breeze that’s blowing in the window, and why sometimes the breeze will come and then pause and then come again.”
**T:** How did your students respond to this kind of learning? It’s certainly a different way of learning from the “cookbook” approach.

**M:** When it comes to “I Wonder,” the most coherent thing I can say is that kids loved doing this. They loved being able to muck around in their own questions, and they loved the time we devoted to this practice. We’re not talking about a day or two; this is a month after month kind of practice.

Now, I’m teaching both 4th- and 5th-graders in the same room, and working with these students for two years. Very often on the first day of school, the returning students would come back, and one of the first questions they would ask is, “When can we start working on our ‘I Wonder’ projects?” These are the 5th-graders saying this. Picture yourself as a 4th-grader, and these 5th-graders are there who already know this space, this learning style. In many ways it’s not very much about me. I’m helping to create this space, but these kids come in with this huge drive and desire to be engaged. If you’re a 4th-grader and you’re watching this, you immediately are curious: “I wonder what the hell is going on here.”

*Imagine students working on long-term investigations based on their own questions, reflecting all areas of the curriculum. Conjure up classrooms of students working on multiple projects: here a survey, there an experiment, data everywhere. Picture kids doing interviews in the community, puzzling over algebra, or analyzing media.*

Fancy those children working together, reporting on research, brainstorming strategies, drafting, and peer editing articles. Suppose they could publish what they’ve learned in a journal distributed to many hundreds of students and adult educators. Contemplate the pride kids will feel after all their hard work. Dream of the vast potential of student wonder and performance.

And open your eyes to Great Blue.  
(Wagler 2002, 120-21)

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**Wood in Water: A Study of Absorption**

*By Ava Kay*

*Randall School*

**Introduction**

My Great Blue question is, What type of dry wood soaks up the most water in 19 days and how quickly does the wood absorb water? To answer my question I will be using six different types of wood: pine, maple, oak, redwood, birch, and cedar. In this experiment I am weighing the wood in grams before and after the soaking. To determine which wood absorbs the water fastest I will be weighing a second set of wood samples in shorter time periods. I thought of this question after an hour of thinking with my dad. I picked this question because I wanted to do something on science that involved nature. This article

Fourth and fifth grade students published their research in the journal, *Great Blue.*
T: Your classroom itself was unconventional, with couches, plants, and an unorthodox layout. You almost need that sort of disruption to help students unlearn how they are encultured into formal education…and how they presume that real-world learning actually works.

M: It was almost as if it wasn’t school. We had a lab space by the windows where plants would grow, a presentation space by the blackboard, a studio space for creating, a reading space, and a variety of nooks and tables for collaborating. Things were different in this space, so when kids walked into this environment, at first, they’re like, “Wait, wait, wait… where’s my space? What am I doing?”

As they got used to it, and they start talking about things like their Great Blue projects (that would be published in our student research journals), then they started thinking and behaving differently. It’s not your volcano project; it’s not your states project. It’s your Great Blue project; it’s your great imagination.

Even our journal used different names for disciplines. We had five sections: “I Wonder” for science; “Kid-to-Kid” for cultural inquiry; “It Figures!” for mathematics; “Critics & Fanatics” for reading; “The Gallery” for art.

T: This sort of framing is so important. We frame ideas, methodologies, knowledge production, and transmission in cultural terms…in cultural terms that reflect privilege and power. Challenging what a classroom is, what a classroom can be, seems to be essential in this educational model.

M: One time we were talking about different cultural uses of lines and circles, between Native and Western cultures. In Western cultures, I told them, we’re born in the hospital, in rows of rooms with straight hallways. They take us to the nursery where all the bassinets are lined up in rows. We get to school and line up to do things. We line up at the grocery store, and when we die we again are put in rows in a cemetery. Everything is in rows. And if we do something wrong, we might get put in prison. Of course, that’s all rows—the rows of bars, and every cell is identical. Now, when I first told students this, I remember I said, “You know, doesn’t it feel sometimes like school’s a bit of a prison?”
“Oh, yes, yes, yes, Mr. Wagler! School’s like a prison.” “Why is it like a prison?” They talked, and decided it was because it could be boring. “So, when we’re bored,” I asked, “Whose fault is it?” Some got a little bolder: “Well, it must be your fault, Mr. Wagler!”

“Being bored feels really imprisoning, doesn’t it?” I said. “You have to be here, and here we are in this room and we can’t get out. Even when we go to Phys. Ed., we just can’t go and play. It’s structured by someone else. You know, sometimes I even feel like I’m your jailkeeper…like I’m the one that’s got to make you do all this stuff.” And then I said, “Well, so how in the world could we get out of this? How could we have a jailbreak?”

This metaphor resonated with my students, so I used it over and over, even though in hindsight it’s maybe somewhat problematic—corrections and especially jailbreaks really aren’t the same as elementary education, you know. Sometimes it’d just be a tiny reference, like when kids would be arguing with me over things like not wanting to do a particular assignment. “You know, I don’t have a choice of whether I teach you writing. I am also constrained. The one choice that I have is that I could work with you to find the best writing experiences that we can come up with together. But if you feel that I’m making you do it, and there’s nothing that you’re going to be interested in, I probably can’t accomplish it. We’re going to stay stuck. So, what would it be like to have jailbreak?”

At the end of the day on Fridays we would even yell “Jailbreak!” Which is so interesting because we didn’t totally think our classroom was a jail, but we realized how trapped we could be. So, it worked as a metaphor for us. It had multiple levels of meaning, and a community feeling. And it was a release, a chance to scream together.

**T:** Can you talk us through the “I Wonder” curriculum a bit? What does it look like in practice, on the ground?

Though it differed year by year, a typical way to start might be pulling out all our student-research journals from the year before, the Great Blue journals, which had a section called “I Wonder.” I would assign them to read certain articles. And we would discuss the research questions, the procedures, and especially whether we trusted the conclusions—and how could we continue this research, or improve upon it. The returning students liked us reading their articles, but they were also ruthless on their own work, saying how they were limited, or that they didn’t have enough time to collect sufficient data. So that was a reading and discussion exercise. Using past issues of I Wonder (in later years incorporated into Great Blue) to generate new research ideas.
From there, we’d often use the set of *Great Blue* journals, have students take a question raised by one of these student-scientists, and then change something in the procedure to see if they could improve on the results. That’s valuable because that’s what real-world scientists do. They’re not always making up their own research questions. They’re working within a community of other scientists, and they’re working together. We’d start asking, “Is this research replicable?” We’re using big words, grounded in practice. “Replicable” was not an abstract word on a spelling test, but a precise word used repeatedly in lab meetings. It established the idea that when we do research we present results to other scientists who may repeat and thus confirm or improve our research.

Helping them come up with research questions and developing methods of inquiry was the core experience of “I Wonder.” The meat of “I Wonder” is kids just getting in way over their heads. In the beginning, I’d allow students to work on any question they wanted—like, “Is my male or female guinea pig smarter?” How will a student answer that question? And how will it teach us anything of value? But eventually I began pushing back against that question, as if I were a professional scientist. We always had students wanting to work with pets, or wanting to figure out which tastes better, Pepsi or Coca-Cola. But if we can’t learn anything about the sense of taste with our experiment, we’d need to keep talking. I would be constantly trying to help them get to a question that has a real potential. After we negotiated a question and a method of inquiry, we had students report to the class, and the class worked as a team to troubleshoot, to help Sara or Martin with whatever challenges they were facing this week. And that’s how we learned, and how we met curriculum standards, with everybody working together trying to solve problems across multiple fields of study.

**T:** Treating students as young scientists must shape their identity, and their identity in relationship with learning.

**M:** I would sometimes ask, “How many of you think of yourself as scientists?” In many classrooms, you might get a few hands going up, waggling a bit. But for us, their hands would shoot up high toward the ceiling. What informed their practice was not mostly me, or this classroom environment, but it was their own identity. They’re working out of a rich identity here. Because I am a scientist, now I’m doing science differently and I’m thinking differently.

**T:** And it seems that asking questions is essential in this process. Often classrooms are much more oriented toward having the right answers instead of asking the right questions. It seems very artificial, linear, and top-down. It doesn’t model the way that knowledge is produced in the real world.

**M:** Exactly. One time I was presenting with my students at a series of workshops that brought K-12 science teachers together with university professors and staff. I was asked if I would present on my work with “I Wonder.” So, we gave a presentation about our process, and one of the professors asked us how long we would be working on a project if it’s not being successful. So, students
talked a bit about that… about being stuck. Then I flipped the question back to the university scientists: “How long might you be stuck?” And they said, “Well, sometimes for years.” And we went back to our classroom, and realized, “Oh my God. Being stuck is not a bad thing.” It was such a revealing insight.

**T:** What sort of projects came from your students?

**M:** Well, there were plenty. One project that led me to the idea of publishing a journal started with two 4th graders who wanted to know about E.S.P. and if it was real. So, they devised a few methods to test this, and before I knew it, they were testing people at recess, after school. They just wanted to do this all the time, and the kids who participated would do it over and over. Eventually they ended up with more than two thousand bits of data.

Another project involved my daughter, Cassie. She was actually in 3rd grade at Randall School, and she wanted to do a project a year early. She wanted to do something about nearby Lake Wingra. We got in a canoe that summer, and we paddled around the lake, trying to figure out what she was interested in. And she was looking at things. She started with surface level things. There was trash in one spot, and she wanted to clean the trash. But we kept pushing forward and eventually she noticed the foam. She wanted to know what caused it. Now, this was so much fun for me because I had more time with her than any other experiment that I ever did in my classroom. But it was still part of my own growing and learning how to support student inquiry.

So, we had this foam. And we’re looking at it, and we’re trying to figure out what caused it via observation. And we just don’t get anywhere. She’s totally lost. Frustrated. I mean, that’s one of the things that happens with “I Wonder” is a lot of frustration, and then breakthroughs. It’s the emotional aspect that makes this model so captivating. I say, “Well, Cassie, what do you want to do? Do you want to find out what that foam is? What would grown-up scientists do if they’re stuck?”

Eventually, she decided to talk to a limnologist, a nationally acclaimed one at the University here. And she interviewed him. So, here’s this 3rd grader, and she’s asking the questions, interviewing him. And he says it’s most likely caused by the proteins in the water, and the action of the waves and the wind by the shore. Now, Cassie was totally intrigued by all this. He said we could actually test this by speeding it up, by using a blender to break up lake weeds.

Then we came home. We came home, and Cassie was peeved. She said, “Why would I want to continue doing this experiment when Professor Carpenter already knows the answer?” “Okay,” I said, “so what are you going to do next? He thought there was some more that could be done here.” So, we got different kinds of lake weeds, we blended them at different rates, and we measured the amount of foam. And that fall Cassie entered my classroom as a 4th grader, and she still had all...
these gallon jars with all this mushy stuff in them. And so, what did she want to do? She wanted to observe these different jars with this blended sludge in them and see what happened to them. And they just got smelly in the classroom closet, so eventually we had to get rid of them. This was early in my discovery process. I was more open-ended in those years.

T: So, we’ve already spoken a bit about the culture of classrooms and how it figures into learning. Are there other ways you have seen culture figuring into the sciences, or the science classroom?

M: Well, I can tell you a story. This would have been 1990, my first year at Randall. Before I began at Randall Elementary, I had spent time living with a Hmong family, and I’d done lots of research on Hmong stories and culture, and I immediately had put up this huge Hmong story cloth in my classroom. Lo and behold, walking into my door that fall, there were seven Hmong students. Two girls, five boys. So, this was the first time that I started teaching “I Wonder” by myself, not as a student teacher. I explained the idea and modeled it a bit. I said you need a question, you need to know how to answer it, you need materials, and so on.

We spent a few days going through this process. With 25 students, some kids were struggling, and trying to think of things to do. So, I said, “On Friday we’re going to begin our first science experiments. Everyone who has their research question and a method that’s approved by me, you can set up your research materials and begin.” Lab time Friday, the students were sitting, and I asked, “How many of you are ready to start?” Fifteen hands went up. “You can go ahead, but there are ten kids here I need to talk with still. Are you able to begin without interrupting us?” I always had to manage this—kids who were ready, kids who weren’t—so we could all stay focused.

So, 15 kids are off working. And I sit down with the other kids. “Let’s collect some data,” I said. “Let’s just look at who’s already working on ‘I Wonder,’ and who’s sitting here struggling. We don’t yet have topics, right? Is that fair?” I asked, “So what do you notice about us, and what do you notice about them out there?” It didn’t take long to realize that they were all boys. All ten of them were boys. There were two other boys who were already out doing science projects. Two out of 12 boys… I wrote that on the board. “So, is it harder for boys to do science?” We were kind of puzzling over this. Of course, they’re not going to say that they’re not as smart. And it wasn’t a put-down in this context. We were just trying to ask a question. I thought let’s have some fun with this. “Do boys follow directions differently than girls do?”

So, we’re thinking, and somebody noticed and said, “Well, half of us are Hmong.” There were five Hmong boys there. Now, remember all these kids know I’ve lived in a Hmong home. They feel comfortable giving Hmong words for spelling tests for all the students to learn. They see that huge story cloth in front of the classroom, and we talk regularly about Hmong culture. I said, “Oh? So is it particularly hard for Hmong students to do science?” And someone immediately noticed that the two Hmong girls had their projects going. “So, is it something about Hmong boys?” We really started digging into this.
Well, then, I asked the Hmong boys, “What’s the Hmong word for experiment?” They didn’t know. I said, “You know, the strange thing is, my first language is a dialect of German, and we didn’t have a word for experiment either.” I said, “What’s the Hmong word for science?” And they’re quiet. “You guys speak Hmong at home, right?” They said they just didn’t have a Hmong word for science. I said that I didn’t either in my German dialect. “Well, what’s going on here?” I asked. I said, “Maybe people like you and me, we had a way of growing up, where we didn’t have this kind of background experience of people doing science like these other kids. Their parents studied science and experiments. They at least know about it. But you and me, we don’t really know about it.”

I said, “Let me tell you about my dad. My dad was a farmer. And, boy, he knew all kinds of things about plants and animals, irrigation and soil, and all that. This one time I had to do a science project, and I was totally stuck. I had to classify trees, and it was winter. I couldn’t do it, and I was so frustrated. And my dad asks if he can help me. And I wondered how my dad could help me. He only had a 7th-grade education. What does he know about classifying trees? He said that, sure, he knew kinds of trees. So we got a gunnysack, a handsaw, and a hatchet, and we went walking off in the woods.

“We’d come to a tree, and he asked if I wanted this one. Sure. So, we would cut off a piece that I’ve got to display later on for the assignment. ‘What kind is this?’ So, he’d tell me, ‘This is hickory.’ ‘So, what’s hickory good for?’ ‘Well it’s good for spokes of a hay wagon wheel, which we made when I was a boy.’ Then he’d ask, ‘Do you want this one?’ It was a smaller tree. ‘Well, what’s that?’ He said, ‘Wild cherry. The bark is good… you can make a tea for a cough.’"

“My dad knew all these trees. I never knew before how much my dad knew about trees! He knew which one was good for the tongue of a hay wagon, and which was good for a handle for an axe.” And I said, “I know this about Hmong people in the mountains of Laos, and they know so much. And they knew plants that none of us know anything about. They knew plants for healing, plants for thatching…. Your parents know all kinds of things about nature, but you don’t have a Hmong word for experiment.” Well, by the next lab day, all of the Hmong boys had projects that were approved, and they were off doing science.

T: I’ve long considered science to be a cultural practice. The kinds of questions we ask, the methods we use, the conclusions we draw as we interpret data, they express the nature of the relationships we have with the so-called objects of the study. They express how authority can be constructed through certain types of knowledge. They express how we perceive separation between disciplines that seldom exists in real life. Reframing “science” as “nature” seems to open up a lot of possibilities.

M: I might mention another type of homework we did, called their Places-in-Nature, or PINs. I had them choose a natural place close to home that has a maximum number of different plants. So, a lawn would be less interesting than an environment that is at the edge of another, for instance, a place where native flowers meet a garden. There are more species to observe in these kinds of

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places. I’d give them a variety of observational assignments, scaffolded up from simpler to more complex. One of my favorite assignments is the first time we are expecting a frost. On the morning after this first frost, I’d have them go out and see where Jack Frost had been in their Place-in-Nature.

We would do the PINs as practice, and then we’d go out here to the marsh, which was within walking distance. We’d walk down a hillside into a drainage area. There are some deciduous trees up on top, a kind of classic succession of older trees. And we can even go across the road, where there’s a different kind of wooded area. And then we can walk down until we’re in a floodplain, with its trees and smaller plants, and then walk right up to the cattails and the lake weeds. We can go out on the pier, and we can dip down, and pull up lake weeds and critters. We discovered a spring back there one year. So we have water, we have mucky spaces, we have trees and cattails, and with all of that diversity of plant life, there’s a vast variety of animals also. So we had this whole gradation of species. And we can watch bugs, squirrels, hawks, and how they exist within and interact with their habitats. And all the time they are observing, they are writing and documenting what they see.

**T:** It’s interesting how you describe this. As you’re discussing these models of inquiry, these models of engaging students, it certainly seems that student learning is rooted in the same process in both the sciences and the humanities. I’m seeing ethnographic observation, I’m seeing the interrelationships between individual cases and complex systems, I’m seeing how dialogue and discourse among peers are crucial to the learning process. I’m even seeing how these Place-in-Nature exercises support almost a relativistic approach to the sciences. You’re not just studying a plant or its cells; it’s as if you’re studying the way some animal views that plant, what water and soil might mean to that plant, or what different kinds of frost mean to some plants but not others. Do you see similarities here as well in methodology?

**M:** I totally do. We did the same types of projects in our “Kid-to-Kid” notebook, where they’d record all their cultural fieldwork. We made studies of culture at home. We’d start with the very simple, like mapping outdoor and indoor spaces, or documenting the processes of doing the laundry, or setting the table. But then we’d get far more complex: objects in their home that are meaningful, their own family’s foodways, their gardens. Then we’d expand outward, looking toward their neighbors, their neighborhoods, and our communities.

**T:** How has this inquiry-based model changed with increased emphasis on standardization in education over the last 15 years?

**M:** In the 1990s when we were doing this work, the downtown science coordinator (for the Madison Metropolitan School District) really loved our inquiry science projects. He’d come to conferences with us—not just me, but with everyone from the Heron Network (the local network
of teachers interested in locally based, inquiry-driven education). There was so much excitement. We’d be asked to do workshops, to talk to new teachers. We were respected for doing this kind of work. By the time I stopped teaching in 2006, I was never asked to do anything by the downtown administrators. Nothing that we did was of interest anymore. Sure, it was at the university, but no longer in the school district.

I remember, one time in the 1990s I had a principal who was doing classroom observations, as he did every few years. He’d write up an evaluation, you know. I said, “I realize I must be a bit challenging for you, since I keep asking you to do things differently.” He said, “Actually, I think that what you’re doing”—this is not personally about me but the kinds of things teachers in our network were doing—“that’s where I expect us all to be in 20 years.”

I had several supportive principals at Randall. But with my last principal, I was in tears. I was so worn out, because she took away multi-aging in my classroom. It was a physical and emotional gauntlet. She belittled my teaching, not by saying it but by constantly distorting and disrupting it. The Heron Network is now done. A bunch of the core teachers are retired. It’s extremely difficult now to use real-world, inquiry-based learning. For example, one of my former student teachers has to fight so hard to do anything outside the mainstream.

The good teachers keep doing it nonetheless, at least in little ways. But to do it in this large systematic way, I think that it happens mostly right now in places like tribal schools—because they care so much about their local land, and they take care of their local culture. I think that’s the absolute best that we have in Wisconsin right now. There’s way more support for environmental education today than for cultural inquiry. It gets harder when the curriculum gets tighter or broken apart into pieces. It gets harder to show that it’s one world that’s an amazing place to be learning in. And still, I continue to have a great commitment to this practice, and I still have hope.

Selected Bibliography of Mark Wagler’s Work


Performers included Tap Team Two, a traditional hoofing dance group, led by Robert Burden, Jr., and Corinne Karon, both trained in the Philadelphia style of tap by the great LaVaughn Robinson. Robinson was recognized as a National Heritage Fellow by the National Endowment for the Arts (NEA), and Tap Team Two is faithful to his legacy and to honoring the lineage of tap.¹ Arturo Stable, a two-time Latin Grammy Award winner, brought young friends, a vocalist and a jazz guitarist, to give the children a geographic tour of Latin rhythms.² And from our university, the UARTS Royals, a student group started by Marques Furr, brought a band dance line tradition associated with Historically Black Colleges to our elementary afterschool partnerships.

About the photo: This screenshot from the Sound Ideas video shows students learning band dance line tradition.
These afterschool programs, the Dream Academy of Philadelphia and Vare Recreation Center, are geographically close to the University and have been in a long-term institutional relationship with our program for over four years. Both locations have 100 percent of the children in these K-8 programs receiving free or reduced-priced lunch. In Philadelphia, one of America’s poorest big cities, not all children have access to art or music. According to my communication with the School District of Philadelphia Office of Arts and Academic Enrichment, in 2016-17, with 151 elementary schools in the district, 114 had visual arts, and only 108 had music instruction; 43 had no music or rhythmic instruction at all, a situation considered a legitimate social justice issue.

The 2016 Nation’s Arts Report Card stated, “schools with a higher concentration of students in poverty were less likely to offer arts education, which prompted the U.S. Department of Education to declare the status of arts education ‘an equity and civil rights issue.’” So, the restriction of the arts in general is doubly constricted among school programs in under-resourced minority neighborhoods, and triply constricted when the children’s own folk traditions are criticized. Where does the obvious joy of participation in traditional arts enter in the idea of aesthetic education? What does the folklore literature on rhythm games and stepping have to offer in our search for legitimation? What tensions emerge in the reshaping of past narratives, and how does a folklorist reconcile the roles of documentarian, historian, educator, and curator?

**The Residencies**

At the end of Tap Team Two’s workshop, led by master tappers Robert Burden, Jr., and Corinne Karon, a student asks, “Can you give us a beat, and I’ll rap?”

Burden leaps into the air and with his feet offers a classic hip-hop beat:

- Boom, chhh, BOOM (pause) chh chh
- Boom, chhh, BOOM (pause) chh chh

And a boy calls:

- My name is Rodney
- And I like to eat chicken
- Boom, chhh, BOOM (pause) chh chh
- Boom, chhh, BOOM (pause) chh chh

The room giggles. The child simultaneously echoes rap phraseology with a playground singing game. Students had just heard and practiced the rhythms of an entire abbreviated history of American tap in an hour’s time. Robert Burden and Corinne Karon recognized that their rap play is a variation of the beats that have preceded them.
The children had just practiced the seven basic steps of tap, learning their names along with technique, a motif of labeling repeated throughout the workshop:

1) Step (walk, whole foot step)  
2) Toe Beats (walk on toes)  
3) Heel Beats (rock on heels, catching balance and walk on the heels)  
4) Brush (kick floor forward or back)  
5) Shuffle (brush forward and brush back in sequence)  
6) Brush and Step  
   The children brush and step faster and faster until they fall down laughing.  
7) Hop. They picked “their favorite leg” and hopped on it and then hopped on both.

The master teachers ask for questions, and a student wonders aloud, smiling, “How much pain is the floor in now?”

When Burden posed the question, “How many know the two places tap comes from? One is a continent and one is a country,” the children had hollered a variety of offerings:

   Europe?  
   Africa!  
   Greece?  
   India?  
   Ireland!

Burden and Karon explained that in the 1920s and 1930s in the U.S., tap emerged from two traditions, Irish and African, and that tap, a truly American art form, was also called “hoofing.” Karon gave a brief history of dance in Ireland. There were three styles of dance taught by a dance master who travelled from town to town: jigs, reels, and hornpipes. Then, she told students, in the 1300s people would take the doors off their homes and place the doors on the floor for solid wood to tap on. Tap Team Two also taps on portable small wooden doors, amplifying their sounds, and the children crowded around the planks to have their turn at being loud. In Africa, Burden explained that different nations and tribes used drums to talk to teach other. They respected the drums, and they respected their ancestors. Drums were like their cell phones, and the children nodded at the concept. Burden then began tapping on his chest, patting Juba, and then a complex series of footwork on wooden doors made the elementary school children’s eyebrows rise up to the ceiling. Tap skill, no matter the body part, was based on technique and pure speed. The children immediately respected both.

The artists took the children on a lineage tour, introducing the three of the most famous American hoopers: King Rastus Brown, who is said to have invented the first time step, or rhythmic tap combination; Bill Bojangles Robinson, who danced up on his toes and danced with a little girl named Shirley Temple; and John Bubbles, who created his own time step, but they say it is now...
“lost to history.” Karon and Burden then recreated a famous routine, almost a hundred years old, called the Shim Sham. Legend has it, the Shim Sham was created by Leonard Reed and Willie Bryant, but it probably came after a version invented by Frankie Manning, a swing dancer and competitive Charleston performer and also an NEA National Heritage Fellow. Karon performed the 1927 Shim Sham version while Robert Burden did a 1970 version, created by their mentor, LaVaughn Robinson. They asked the children, “Did anyone feel or hear anything different in the two versions?” (Her step started on 4. His, the 1970s version, started on 1.) Then, they did both their Shim Sham at the same time. The children noted that the 1970s Philly style version had more beats per bar, recognizing what tap historian Brian Siebert called, “what the eye hears” (2015). The children exited the class improvising beats, making raps while they attempted to tap with their feet.

When Arturo Stable taught his Latin rhythms workshop, he brought with him a young jazz guitarist, a vocalist, and his own cajon, a box drum that he sat on while he played. The drum has its roots in the shipping crates of Peru, and from there he demonstrated samba rhythms from Brazil, and la clave, the classic rhythm associated with his native Cuba. The music morphed seamlessly into jazz, and some children were so mesmerized by Coltrane’s “Afro Blue” they were almost lulled to sleep. One girl who was new to the program, angry and often in trouble, raced up to the performers and spoke in rapid-fire Spanish, beaming. We would reference her happiness in our conversations with her over the coming weeks, as her anger visibly dissipated.

The connections between the Latin rhythm traditions were left unspoken, and Stable thought it best to let the children play with rhythm in a call-and-response style and try their hand, literally, at songwriting. At Vare Recreation, they first set a rhythm together after a display of options and then chose a chord progression, A, B, C. One boy offered a theme:

Chicken and hot sauce 123,
Chicken and hot sauce ABC,
SOCA!

For Dinner? Arturo called. They answered, Fried chicken!
For Lunch? Fried chicken! For Breakfast? Fried chicken!
The children shouted “Soca,” intuitively recognizing the “Soul of Calypso” rhythm that Stable played on his *cajon*, although they did not know what the term meant. Rooted in a fusion of calypso, African, and East Indian rhythms, their bodies recognized the beat before they knew its definition.

When the Royals Band Dance Line arrived at the Dream Academy, children were intrigued by the recordings of a loud marching band. One dancer faced the audience and performed a standing undulating movement phrase, which was repeated by the team in variations based on her hand signals. The children were taught to stand like royalty, with imaginary crowns on their heads, their spines elongated and proud, and then practiced strutting and following the leader. Some participated under pressure, and it was unclear whether it was the crossing of the cafeteria stage that made them shy, or their difficulty in connecting to a tradition so southern, and so collegiate. The adolescent boys enjoyed watching the female college students perform and were happy to follow them across the room. At one point a group marched across the room playing imaginary horns and drums. I noted the irony of invisible instruments in a district with insufficient funding for its music programs.

The staff of the Dream Academy connected most directly to this tradition and were seen strutting and stepping on the sidelines, much to the pleasure of the children who noticed. We invited the staff to join the front lines instead. The program director, Maurice Williams, said that he had attended Morehouse College, a Historically Black College in Atlanta, and loved seeing the band dance team there—Mahogany in Motion, he recalled with a smile. For him, the memory of this type of dance was embedded in the memory of college itself, something his program advocates for these young children. Few have relatives who have attended college.

The children were indirectly invited to picture themselves in these various roles: as an early hoofer, as a dockworker with a *cajon*, as royalty, as a college student, and as a composer. The approaches: historical, geographic, and bordering on the ethnographic. An appreciative set of audiences, the children engaged most when invited to play: play with their own feet, with their own hands, with speed, with composition, with inhabiting new postures. I wonder about the role of play in this dialogic, two-way version of “the ethnographic imagination” (Willis 2000).

**Play, Resistance, Aesthesia**

Embedded in the play of these young children are the beginning stages of social critique. Content too remote? Let’s add chicken. Process too slow? Do it faster. Activity too passive? Let’s do it where we sit. Play is fundamentally about exaggeration, about the play of boundaries. No wonder schools find it threatening, although it does not have to be perceived that way. The point of bringing in Robert Burden was not just to create future tap dancers, but also to legitimize the idea of constant bodily rhythm play. Arturo Stable bears the tradition not just of Latin percussion, but also of percussive experimentation. Known for tapping their cutlery at mealtime, for drumming on signposts, and for scat singing in public, Burden and Stable embody the physical joy of movement, so criticized during the school day. Playing with rhythm in public is a much needed dose of aesthesia. Noted by Henry Glassie, anesthesia is for sterile places like the surgical table; we would...
argue it has no place anywhere near children (Glassie 1989, Beresin 2014). Children need these artists to model vibrancy, aesthetic history, and a playful passion for learning.

Film and video allow us to freeze time and offer the media back as a gift to both practitioners and scholars. When the children of the Dream Academy saw the “Sound Ideas” video embedded in this article, five months after it was filmed, they were shocked by their own physical changes, by their thoughtful and attentive faces. “When was this filmed? It was sooooo long ago.” A follow-up performance, initiated by a Dream Academy staffer, led three 8th-grade girls to step, holding an American flag, while gunshots rang as a soundtrack, and the children dropped to the floor. Their words before they fell: Trayvon Martin. Amadou Diallo. Manuel Loggins, Jr. Eric Garner. Alton Sterling. They were echoing the motifs of Kendrick Lamar’s 2018 Grammy Award Ceremony choreography. All of this time is still current, from King Rastas Brown to Kendrick Lamar, and we folklorists deconstruct the layers of time and place, just as the children combine it through play and choreography.

Rhythm Literature

Academic rhythm literature is divided by genre: There is a tap dance history literature (Valis Hill 2010; Siebert 2015) and a rhythm game literature (Gaunt 2006; Jones and Lomax Hawes 1972; Beresin 2010). For a sophisticated history of marching step history, tracing its roots from Africa through minstrelsy, see Malone’s Stepping on the Blues: The Visible Rhythms of African American Dance (1996) and Fine’s Soulstepping: African American Step Shows (2007). There are encyclopedias of rhythm traditions in the ethnomusicological tradition (Murphy and Pearsall 2016) and the equivalent in dance, Shay and Sellers-Young (2015) The Oxford Handbook of Dance and Ethnicity. The overall evolution of the field itself seems to be reflected in Shay and Sellers-Young’s four sections: “the construction of ethnic identity,” “choreographing the nation,” “performing the other,” and “dance as a form of ethnic resistance.” As such, the encyclopedic approach reflects the academic trends in folkloristics as it reflects the meta-analysis of folktales and material culture (Landis and MacAulay 2017; Noyes 2016). In our own Sound Ideas program, we can see these concepts emerge organically, framing ethnic identity, nationhood, the other; but where is resistance? Where is critique?

We need both the formal critique like the dances of the Dream Academy, and the informal critique of play and game traditions to make sense of our current senseless present. Play and art, expression and practice, and with them, the focus and discipline required for all rhythmic play are the same kinds of tools needed for critical thinking—observation, analysis, and reflection. Play itself keeps the material relevant, flexible, and necessary. As play scholar Brian Sutton-Smith noted in conversation, play is children’s answer to the hypocrisy of the adult world. Through their play, the children remind us of the artificial boundaries of all these subjects, and of the absurdities of our budgetary allocations, as they play with their own sound ideas and fantasize about being fed.

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Journal of Folklore and Education (2018: Vol. 5)

Sound Ideas: A Folk Arts Response to Taboo Rhythm Games at School
Thank you to our performance funders, The Harry Chapin Foundation and the Dolfinger Foundation, for their support. Thanks also to our institutional partners the Dream Academy of Philadelphia and Vare Recreation Center, to NEUARTS co-director, photography Master Lecturer Lindsay Sparagana, and recent UARTS grad, videographer Julie King. We thank our performers: Arturo Stable, Dariel Peniazek, Andrea Giovinazzo, Corinne Karon, Robert Burden, Jr., and Marques Furr and the Royals.

To contact Anna Beresin about supporting an inaugural Pen Tapping Rhythm Festival, contact her at aberesin@uarts.edu. We thank you in advance.

Endnotes
1. See https://www.arts.gov/honors/heritage/fellows/lavaughn-e-robinson.
4. For more on patting Juba, hambone, or slap jazz, see the Master hambone artist Danny “Slapjazz” Barber here https://www.youtube.com/watch?v=6BCzIdY-taY.

URLs
Sound Ideas: https://drive.google.com/file/d/1ZYQoIINWnNH1Iql_SbpKx4F1zoiLJC0Ja5/view

Works Cited
A Pedagogy of Making Do

by Danielle Henn

A woman with aching feet sees a five-gallon bucket, turns it upside down, and sits on it.

A man who needs quick cash goes into the woods, digs up a dogwood tree, and sells it on the side of the road.

A researcher wanders into an unfamiliar field of study, finds its approaches useful, and adopts them.

These vignettes are from Gadsden County, Florida, a rural pocket of North Florida where using resources in creative ways is an everyday practice. I am an art teacher and doctoral student in Tallahassee, but Gadsden County is where I grew up. In this article I examine how growing up in Gadsden County culture influenced my teaching philosophy with regard to what Gadsden County residents call making do. What does it mean to make do, and how might it inform the ways we teach? To answer these questions, I investigate the theoretical concept of making do and empirical literature examining its practice. I then approach research as bricolage (Kincheloe 2001) layering folklore, ethnographic methods, and local learning techniques to create a thorough picture of making do in Gadsden County. Finally, I share how my findings inform recommendations for a pedagogy of making do.

As an art educator I want to understand how to provide a learning environment for fostering manifestations of culture, and making do is one process that generates cultural expressions. Studying the art of making do may deepen our understanding of how and why customs and culture come into existence, change, and evolve. This work may simultaneously inform the formation, permutation, and evolution of a pedagogy of making do.

Making Do as a Theoretical Concept

Making do has various definitions and connotations, but for our purposes, to make do is to make something do what you want or need it to do. The use of the word make in this definition implies the subversion of a product’s official purpose so it may be of service to one who wishes to use it in a new way. This theoretical concept was formally analyzed by Michel de Certeau in The Practice of Everyday Life where making do is defined as the “surreptitious and guileful ‘movement’” (Certeau 1984, 34) of consumers, through their consumption, becoming producers. The introductory examples illuminate how this happens: how a woman consumes a bucket in such
a way that it produces a chair, how a man seizes and commodifies a tree to turn it into petty cash, and how an art educator employs folkloristic research methods, transforming their lessons to produce pedagogy.

In addition to discussing making do, Certeau (1984) explains the differences between strategies and tactics. Strategies are formal plans executed in plain sight by institutions in positions of power. Strategies found in a classroom may include official policies regarding behavior management and the scope and sequence of curriculum. Tactics, however, are informal and often covert actions carried out by individuals who are not in positions of power. Classic student tactics in the classroom include note passing and class clowning, yet the cleverest tacticians may invent new and endless ways of subverting the powers that be as an enactment of personal sovereignty. Students rarely have strategy on their side, yet they possess a plethora of tactics, one of which is the art of making do.

Making do is not to be confused with the do-it-yourself (DIY) movement. Making do and doing-it-yourself are both ways of producing something for oneself, yet making do has a more creative and immediate connotation. Making do is a creative practice born out of the constraints experienced by a producer. Alternatively, doing-it-yourself usually requires an absence of constraints to complete a project. A DIYer may need to purchase special materials and tools. They may also require spare time. For example, building a DIY chair may require lumber, saws, and a free weekend. In contrast, a make-do chair may be created immediately out of anything one can sit upon. To DIY is to exercise a privileged power over your resources, to bend resources to your will. To make do is to design creatively, to allow whatever resources are available to shape your creative output, and to do so in a way that serves your own needs and desires. Doing-it-yourself is composed. Making do is improvised.

**Empirical Literature on Making Do**

The art of making do is often used as a lens for researchers who are interested in folklore, culture, or entrepreneurial efforts that are illicit, underground, or difficult to detect. For example, to explore the creation and distribution of pirated music, ethnographer Jason Pine (2011) considers phenomena through an entrepreneurial lens of making do “positively [referring] to the alertness, adaptability, and celerity that are awakened by a challenge” (Pine 2011, 23). In a similar spirit, The Amazing Crawfish Boat by John Laudin (2016) investigates the resourcefulness of the Cajuns and Germans in Louisiana who use whatever is available to improve their fishing vessels. This ability to innovate creatively is key to their survival and to gaining advantages over their competitors.

The art of making do is also informative in pedagogical contexts. In “Pen Tapping: Forbidden Folklore” (2015) Anna Beresin discusses how students in a K–8 public elementary school entertain themselves, negotiate social status, and transition from one activity into another by tapping their ballpoint pens, turning the pens into percussion instruments. Pen tapping only happens on the sly because teachers find the tapping disruptive and have banned it. This make-do recreational activity is an example of what Michel de Certeau (1984) calls *la perruque*, a tactic for using time or resources officially allotted to working for someone else and using them to pursue one’s own desires instead. In “Steps Toward a Pedagogy of Tactics” Lankshear and Knobel (2002) argue that by becoming familiar with student tactics, instructors may also learn how to operate tactically and
use this practice to improve the quality of their students’ learning. Using a lens of making do is a generative way to recognize and value creativity in everyday life (Laudun 2016, Pine 2012, Westin 1976), and developing an understanding of making do and tactics makes them easier to recognize and use in pedagogical contexts (Lankshear and Knobel 2002).

A Methodology of Making Do
As an art teacher I find the ability to use limited time and resources tactically invaluable, yet it is a skill I was never formally taught and, until recently, had not given much thought. Every teacher I know is engaged in the art of making do, yet we rarely explicitly reflect on this practice. To understand the origins of my own practice and how it may inform the development of a pedagogy of making do, I turn to the folkloristic approach of local learning. I research how folks are making do where I grew up, Gadsden County, Florida, using Kincheloe’s (2001) bricolage approach. This bricolage approach to research involves collecting various types of data from a wide array of sources. Then the researcher considers the relationships between these different types of data to generate nuanced, holistic understandings. I am practicing this approach by gathering data through a layering of autoethnography, oral history, observational fieldwork, and photography. This interdisciplinarity allows for “the synergy of multiple perspectives” (Kincheloe 2001, 686) and reflects my philosophy of making do as both a pragmatic and constructivist approach to learning.

The Kids’ Guide to Local Culture (Wagler, Olson, and Pryor 2004) and the Teachers’ Guide to Local Culture (Wagler 2004) produced by the Madison Children’s Museum in Madison, Wisconsin, served as excellent resources for guiding bricolage research, prompting me to engage in ethnographic local learning by conducting observational fieldwork, collecting oral histories, and digging deeper into traditions present in my own culture. This research is also autoethnographic as I wrote narrative reflections about my past and present experiences with making do in Gadsden County and allowed themes to emerge.

A methodology of making do is especially useful when examining the culture and practices of everyday life, for everyday life is often a slippery concept resisting formal capture and study (Certeau 1984). To understand daily life it is necessary to consider both rhythms and idiosyncrasies, the shared culture of a community and individual practices as well. Using a layered, bricolage approach provides footholds for understanding that a single method could not offer.

To understand the art and work of making do better I gathered oral histories from Gadsden County residents and relied upon my observations of the county, as well as my own knowledge of the area as a resident. I focus on four oral histories from participants Aaron, Barbara, Bill, and Jim who each provide a unique glimpse into what it means to make do in Gadsden County. Aaron is creative in the ways he finds food and makes money. For Aaron, making do is about survival and not calling too much attention to himself. For Barbara making do is about making the most with what you have and an attitude of gratitude. Bill offers an evolving definition of making do. When Bill was growing up, making do was about survival, especially putting food on the table, yet now he thinks about making do as complacency, a way of “just getting by” or maintaining one’s status quo. Jim’s family invested in Coca-Cola in the early 1900s and profited greatly. Jim looks back on the eccentric ways rich residents of Gadsden County made do with fondness.
Findings
Acts of making do are motivated by one or more of Glasser’s (1986) five basic needs that drive human behavior: to survive and reproduce, to belong and love, to gain power, to be free, and to have fun. My neighbors in Gadsden County meet these needs by making do in boundlessly creative ways. To survive, Gadsden County residents fry squirrels for supper, grow and preserve their own food so they do not go hungry, and recycle scrap metal for just enough money to make rent. To find belonging and love they relish spontaneous porch gatherings with one another, sneak into the woods with their sweethearts, exchange kind greetings over cash registers, linger in parking lots after church functions, and offer warm smiles to complete strangers. To satisfy their need for power, people in Gadsden County join committees, gossip to increase their social standing, and hunt wild game. To live freely they work for cash paid under the table as soon as the job is done, walk or bicycle so as not to have to fool with a car, and avoid any arrangement with too many strings attached. Gadsden County residents make their own fun at fish frys, swimming holes, lawnmower parades, cow tippings, and hog killings. Making do is a practice that serves our most basic needs, and it is motivated by making a life worth living, one full of love, power, freedom, and fun. This illuminates a link between making do and creativity, a relationship captured by the old adage necessity is the mother of invention. We create what we need to create by using the resources available to us. This is an important connection for the field of art education because it implies that if art educators wish to nurture and elicit student creativity and inventiveness they must create curriculum designed to meet student needs.

Making do takes countless forms and thrives when it is unobserved and unregulated. As such, trying to understand making do by formally tracking, documenting, and analyzing it is difficult. It is like trying to shine a light on a shadow. In my research, I experienced this as the observer’s paradox, for even when I succeeded in identifying a prime example of making do, catching and studying it always felt a bit like killing it. Even so, to give an idea of the breadth of this practice in Gadsden County, I offer the following examples and how they inform a working definition of making do.

When I first met Aaron, he was strolling away from downtown Quincy with a bundle of bamboo shoots on his shoulder, many over 15 feet long. He said folks were clearing out cane behind the local Dollar General, and he was taking advantage of the opportunity to make some cane fishing poles. He took the poles home, dried them out, varnished them, strung them with fishing line, and has since used them to catch many a catfish dinner. Making do is being flexible enough to recognize and seize opportunities when they present themselves.

When I was a girl in Havana, I shot squirrels to keep them out of my grandmother’s garden. A few
blocks away there lived a woman who knew how to clean and cook squirrel, so we disposed of the dead rodents by giving them to her for her supper. **Making do is forming and maintaining symbiotic relationships.**

A little further into town there is a make-do sign advertising La Formula, a small grocery specializing in Mexican and Central American goods. The sign once had interchangeable letters; however, instead of replacing the letters, the owners decided to paint their message directly on the sign. **Making do is using what you have to be a producer instead of a consumer.**

The curb in front of a local gas station and convenience store serves as a makeshift place of business for all kinds of illicit transactions. **Making do is learning how to use public space for personal purposes.**

In rural Concord, colloquially known as Coonbottom, there used to be a massive chicken pilau dinner, pronounced *perlow* in North Florida, and it served as an annual fundraiser for the local cemetery. Volunteers boiled chicken and rice in cast iron wash pots over open fires, stirring them with wooden boat oars. Folks sat on upturned bean hampers at plywood tables. The whole event was the epitome of making do. However, it grew in popularity, attracting over 5,000 attendees and the attention of the Florida Department of Health. In 2007 the state attempted to regulate the pilau dinner, and that shut down the whole affair. **Making do means operating on the sly, for with detection you risk the limitations of regulations.**

Aaron complains that young folks do not know how to cook with what they have in the kitchen. When I asked him why he thinks this is the case he says, “They ain’t learnin’. They got so much to do in their lives where they ain’t got time for it... You got a lot of young people that eat out nowadays. They don’t have time to sit down and cook a good country meal.” In Gadsden County, those who do not have money to spend figure out how to make their time profitable instead. They keep gardens, go fishing, and learn to fix their belongings or scavenge for new ones. Sometimes they wait patiently to see whether they can do without before making a purchase. Canning and preserving food is very time consuming, but the practice is still alive and well in Gadsden County.
as evidenced by all the shelves devoted to Mason jars and pectin in the local grocery stores. **Making do is spending time instead of money.**

In the art education classroom my students and I also make do in these ways. I am flexible in my lesson plans when more exciting opportunities present themselves. Once after teaching paper sculpture to a group of first graders they were inspired by a cityscape mural another class was working on and wanted to create their own city. Instead of adhering to my plans for the rest of class we moved the tables aside and created a paper city in the middle of the classroom. My students often choose to be producers before consumers by creating the things they need and decorating their belongings with supplies from my classroom. For example, one student found her hair was getting in the way of her work, so she created a hair tie.

Another student struggling to get a clean print of her linocut found she had more control over the stamping pressure when use her body as a printing press.

We use public places for personal purposes by creating works of art on sidewalks, playgrounds, and in hallways. Once after a unit on weaving I found pine straw designs and messages woven into chain link fences during recess. We often take to the playground and use natural materials to leave patterns for passersby to discover.

I form and maintain symbiotic relationships with thrift stores to secure supplies for my classroom. For example, whenever a large painting on canvas comes through The Lucky Duck Thrift Store they call me,
and I trade donated goods for the canvases. I apply gesso to these canvases and most end up as substrates for large-scale collaborative projects. My students and I often operate on the sly when creating especially messy or controversial works of art, and I whisper that we will ask the principal’s forgiveness instead of permission. My students also operate on the sly by hiding messages in their artwork, stealing glue to make slime at home, or slipping chalk pastels into their pockets to color their hair after class. Like many other art teachers I am notorious for spending time making, fixing, or reusing what my class needs instead of spending money to purchase something new. This makes the art room a magnet for piles of strange donated materials and students with broken belongings. This practice of making do is foundational to the way my classroom operates.

Steps Toward a Pedagogy of Making Do

Through studying local culture I have broadened and deepened the resources available to me as a pedagogue. My findings about making do in my community encourage an informal, tactical approach to applying the art of making do in the classroom. By developing a deeper understanding of making do as well as student and teacher tactics, an educator may more readily recognize and build upon a pedagogy rooted in this practice. Pedagogues may also bear in mind the spirit of the song “Mama Don’t Allow”:

Mama don’t allow no washboard playing round here.
Mama don’t allow no washboard playing round here.
Well we don’t care what Mama don’t allow,
Gonna play that washboard anyhow.
Mama don’t allow no washboard playing round here.

(Pierce and Pierce 1971)

In this song, whether or not Mama allows washboard playing, the players will find a way to continue making music. Making do is many things as my interviews and personal experiences have taught me, from forming new, symbiotic relationships to producing instead of consuming to doing so on the sly. In the classroom, I make do myself, by using what I call a pedagogy of making do. Turning making do into a pedagogical practice requires teachers to be on the lookout for similarly unregulatable, uncontrollable passions so we may work with or around them rather than against them. In doing so, I have identified four crucial steps to creating a classroom reliant on a pedagogy of making do. They require the teacher to:

1. Value enabling constraints
2. Recognize and value the countless ways of making do
3. Make time and space for making do
4. Investigate and respect student motivation

Value Enabling Constraints

Although we should watch carefully for and encourage student behavior that strives to meet any of Glasser’s (1986) needs, that is not to say that the classroom should be an unregulated environment. The creative practice of making do thrives on structure, and a pedagogy of making do affirms the need for constraints, limitations, boundaries, and order in the classroom. Rather than wondering only how to create more choice for students, a pedagogy of making do considers how to limit
choice in a way that frees the student to work intensely toward desired learning outcomes. In the art room this sometimes means limiting choices of colors or materials so students are not overwhelmed by endless options. Then, once a student’s needs and desires have an opportunity to crystalize, the instructor may encourage the student to pursue those desires. These enabling constraints help students work creatively toward their learning objectives by requiring them to use limited resources in new, inventive ways (Fendler and Hamrock 2018).

Of course, not all constraints that students and teachers face in their classrooms are constructive. A lack of administrative support, insufficient funding, and excessive school duties beyond teaching do not enable students and teachers to do their best work. We must not confuse a pedagogy of making do with asking teachers and students to figure out how to teach and learn no matter their lack of resources or the excessive responsibilities heaped upon them. Sufficient resources are essential for a classroom to thrive, and we must advocate for the removal of harmful constraints in the classroom.

Recognize and Value the Countless Ways of Making Do
Recognizing the ways that students make do may help teachers view student behavior from the perspective of the student rather than of the teacher or educational institution. Behavior management may take new shape for teachers who are able to negotiate relationships with students as accomplices rather than as looming enforcers of institutional policies. To notice a student finding ways to grow in the cracks of a concrete policy and be able to say to that student “I see what you are doing! How can I help you?” may prove to be a powerful tool for building rapport and strengthening student agency. Returning to the example of a bucket-turned-chair, if students were to use a bucket as a chair, we would do better to acknowledge their resourcefulness than to admonish them for improper use of a bucket. When students use their educational environment to satisfy their own desires, we would do better to recognize and encourage their cleverness than to punish them. More often than not this behavior is not impertinence. It is survival.

Make Time and Space for Making Do
In a pedagogy of making do, educators must allow time and space for students to approach learning resourcefully and independently. This means encouraging student input on the design of certain projects and assessments as well as allowing class time for students to work toward academic goals as they choose. Encouraging the practice of la perruque, the reclaiming of class time as time to pursue personal interests, bolsters motivation. Many educators already make space for this by allowing students to choose books and topics for reports and projects, yet I argue educators should explicitly encourage their students to practice la perruque in educational settings whenever possible.

Making time for making do also means building in time for students to approach a problem in a variety of ways and to struggle and experiment toward success. Students who know they have time to go about their learning may take more creative risks than those pressured to get the correct answer right away.

Investigate and Respect Student Motivation
To encourage the development of student agency and personal sovereignty, educators must take care not to focus so intensely on their own goals for students that it drives student goals
underground. Educators must bear in mind that students are constantly held accountable for outcomes and goals chosen by others. This is disheartening when a student is unable to find a way to work simultaneously toward achieving their own goals, to work for themselves while working for others. As such, we must be careful not to assume that we understand the motivations for student behavior before doing the work of investigating those behaviors and the motivations behind them. Students operate within educational systems they often seek to subvert, sometimes in the pursuit of personal sovereignty. This is why a lens of making do is valuable for understanding what students do, how they do it, and why they do it.

In addition to investigating student motivation, educators must bear in mind that students do not always understand why they do what they do. Students need opportunities to think about how they decide what they need and want and to reflect on how they go about achieving these aims. Explicitly discussing the art of making do with students may provide a window for students and teachers to practice metacognition, an opportunity to think about their own thought processes and to better understand their own desires and needs.

The art of making do is both something that informs my fieldwork and a pedagogical practice I employ in the art classroom. Although making do comes in many forms, as teachers we all learn how to make do in countless ways. Investigating my personal culture of making do in Gadsden County enriched how I think about making do as an approach to education. Using making do as a specific pedagogical practice has the potential to create a more inclusive, understanding, and beneficial environment for our students.

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Kenny Hill was a bricklayer who divided his time between Branson, Missouri, and Chauvin, Louisiana, for several years (1988–2000) while Branson was experiencing a construction boom. On the site that he rented in Chauvin he began to use leftover construction materials to create life-sized sculptures. In 2000, Hill walked away from the sculpture garden leaving several pieces unfinished. The exact reasons he left remain a mystery, although an eviction notice was found among his belongings in his house. Soon after his departure, a series of events occurred to rescue the unique art site (Mason et al. 2002, Cibelli 2005, Stone 2007, Eberhardt 2008). Dennis Sipiorski, then head of the Nicholls State University Art Department contacted the Kohler Foundation, which quickly set about rescuing the art, purchasing the land, and eventually gifting the site to Nicholls State. The advisory board Friends of the Chauvin Sculpture Garden was established shortly thereafter to aid in the preservation, public awareness, and programming of garden events.

Here we describe some of our strategies to build a cohesive team of collaborators who offer a sense of stable continuity to the educational mission of the garden. Some of our most successful projects include establishment of our weekend Artist-Docent program, partnership with students of the Nicholls Honors Program, and hosting our annual Chauvin Folk Art Festival and Blessing of the Fleet. While the specter of Louisiana's coastal land loss looms on the horizon, we currently take advantage of the synergy among several cultural narratives that converge at Chauvin for increasing the visibility of the visionary art of Kenny Hill at the Chauvin Sculpture Garden. Twenty years since we came together as a board, we are looking back at some of the practices that allowed us to thrive and maintain a successful relationship with the Chauvin Sculpture Garden. We hope that sharing some of our experiences may be helpful to others targeting similar outcomes.

About the photo: Aerial view of the Chauvin Sculpture Garden. Photo by Dylan Maras.
Early Challenges and Setting
The Chauvin Sculpture Garden lies 30 minutes south of the city of Houma and an hour south of the Nicholls State main campus in Thibodaux. Being off the beaten path contributes to the ambiance of the garden, but it also leaves the garden in danger of being on the back burner of a small university with the typical budget constraints of any small university. Chauvin lies along an interesting path between the city of Houma and the fishing village of Cocodrie. Traveling south from Houma, the landscape transitions from a bustling modern city of strip malls, to the family-oriented fishing town of Chauvin, to a long line of raised camps for weekend visitors at the end of the highway in Cocodrie. Because of its proximity to the brackish marshes of the Louisiana coast, Chauvin is feeling the effects of an ecological phenomenon designated “coastal land loss,” which differs from the more commonly encountered “beach erosion.” In coastal land loss, large portions of brackish marsh are transformed to open water, so what was land 30 years ago is now shallow bays (Reed 1995). The lack of marsh leaves Chauvin more vulnerable to coastal storms, flood inundation, and a loss of habitat that tangibly changes the diversity of traditional occupations and culture.

Although the Louisiana Office of Coastal Protection and Restoration Authority is leading substantial efforts to restore the coast, there are also government-led plans to offer assistance for citizens to migrate north to higher land that is protected from storm surge by a large levee system (CPRA 2017). The recognition of these struggles to combat coastal land loss has gradually led to a quiet, yet palpable feeling of despair about the future of Chauvin and nearby coastal villages. Through our efforts to help the Chauvin Sculpture Garden thrive, we offer a point of pride in the community and a reason for guests from faraway places to visit.

Our Strategies for Sustainability
Establish a board with a diversity of expertise.
Our board membership currently includes four members who were raised in the Chauvin community who ensure that our activities remain consistent with the traditions and rhythms of Chauvin residents. Educators are vital contributors, including two K–12 teachers and six college faculty from three universities. The teachers incorporate the garden’s artwork into their art classes and host receptions at the garden. University faculty insert the site into their curricula, helping maintain the site as a unique gem of academic study. We have established a practice in collaboration with the Nicholls Art Department to offer a gallery show at the Garden Studio, located across the street from the Garden, as a post-exhibit venue for artists who exhibit on the Nicholls campus. The Art Honor Society Kappa Pi uses the garden for induction ceremonies, creating a deep connection between students and the garden. Local professionals on the board are also important, giving us a strong network of ambassadors who publicize our activities throughout the community.
Organize programs relevant to the community.
The Friends of the Chauvin Sculpture Garden take their inspiration from some of the few things that Kenny Hill said about the garden, one of which was that he “built it for the community.” Hence, we never charge admission for entry to the garden or events, although we always welcome donations. As a board we have created and maintained several ongoing projects that allow us to fulfill a wide range of mission objectives, reaching a cross-section of visitors and increasing awareness and appreciation of the garden.

We created the weekend Artist-Docent Program in association with the Bayou Regional Arts Council to ensure that the garden has personnel on site every weekend. We recruit college students and young artists to serve as Artist-Docents. We conceived of this position as a person who could act as host, tour guide, and protector of the art, but in contrast to a conventional museum docent, we expect these Artist-Docents to repair, re-paint, and conserve the art. They actively engage visitors as stewards, requesting that they help repaint and, in essence, become part of the garden, a collaborator with Kenny Hill in the maintenance of his sculpture garden.

One of our favorite collaborators is the South Louisiana Wetland Discovery Center (SLWDC). Each summer SLWDC brings a group of 40 children to the garden, where we teach them to make fish prints (gyotaku) and about the geography of the bayou region. We introduce them to the visionary art of Kenny Hill and use the site to encourage the students to offer their own interpretations of the art. We have found that these young students are enthusiastic about bringing their parents and family members back to the garden for future visits.

Although Nicholls State University owns the garden, recruiting faculty to involve their classes is challenging. One solution was creating a long-term relationship with the Nicholls Honors Program, whose faculty coordinator is art historian Deborah Cibelli, who has published her own work regarding the art of the garden (2005). Honors students adopted the site as a service-learning project, committing to at least one workday per semester, bringing ten students for a day of gardening, cleaning, repairs, and repainting. Students receive an on-site lecture about Kenny Hill and his artistry and training in how we gently preserve the pieces. They must submit a report offering feedback about their experience in the garden.

Through our board members who are Chauvin residents, we interact with several community groups such as the Terrebonne Advocates for Possibility and the Li’l Caillou Volunteer Fire Dept. As a manifestation of this partnership, we host paddlers at the garden as their halfway point rest stop. Every year we receive new visitors who are paddling, along with family members who come to the garden to cheer them on.
Our premier annual event is the Chauvin Folk Art Festival. Created by the Sculpture Garden coordinator Michael Wyshock and Dennis Sipiorski, the festival purposefully coincides with the traditional Blessing of the Fleet organized by the Shrimpers of Chauvin and St. Joseph Church through the Diocese of Houma-Thibodaux. The Chauvin Folk Art Festival attracts artists, entertainers, filmmakers, and visitors from larger Louisiana cities as well as from other states. The event has three objectives: highlight the art of Kenny Hill, offer a venue to exhibit the work of other Louisiana folk artists, and provide a show of support for the traditional fishing community of Chauvin by paying homage to a day that they have celebrated for decades. The Chauvin Sculpture Garden has quickly become recognized as a great place from which outsiders can watch the Blessing, including politicians, filmmakers, and the press.

Lessons Learned
The most important element of our board's success has been that we maintain strong friendships as we collaborate to host garden activities. Neither the academic merit points, nor the site notoriety, nor the sale of artistic work are enough incentive to bring board members together. But the joy of staying in touch, introducing new students to the work, and creating a successful festival together led to a strong commitment that survives over many years of life transitions, including moving to different schools, changing jobs, and surviving coastal storms.

The Cajun residents of Chauvin are generous, cooperative, and tolerant of our site, which was built in the middle of their town. Neighbors often volunteer as tour guides for visitors who show up at odd hours when no docents are working. They provide an informal rapid-response force to report storm damage and clear away fallen trees before university maintenance workers can arrive. We struggle with the conceptual conflict that bigger is better. For instance, we would be able to apply for more festival funds if our festival attracted a crowd of 1,000, rather than a core of 200 visitors, but our site is too small for a bigger crowd. While more funding and more guests would be attractive at one level, we appreciate our tradition of maintaining a smaller, more intimate, more meaningful experience for visitors. Rather than competing with the New Orleans Jazz and Heritage Festival, which sometimes occurs during our Chauvin Folk Art Festival, some visitors find us an attractive antithesis to the jazz fest since our free event brings visitors to meet the people of Louisiana in low-key setting steeped in local culture, with the added value of experiencing the visionary art of Kenny Hill where he created it.

Finally, we acknowledge the contributions of our board and docents. Although the garden is open every day from sunrise to sunset and many visitors explore the garden without the aid of a docent, some of our most important connections are through our Artist-Docents on site. Our garden personnel have been featured in several documentaries, including work by filmmakers Godshall (2009) and Evans (2017). Through the continuous work of our board to increase the visibility of the garden, we received the designation “12th Most Amazing Sculpture Garden on Earth.”
hosting our annual festival on the bayou and opening our garden to the community for viewing during the Blessing of the Fleet, many people have made the garden their favorite destination and a permanent part of their yearly calendar.

The Future
The Chauvin Sculpture Garden is situated in a region suffering from a gradual ecological catastrophe where an average of one acre of marsh is transformed to open water every hour. The amount of land loss has been documented as one of the most accelerated rates measured anywhere on earth. Yet the town of Chauvin perseveres, and we are committed to maintaining the garden in this environment. The sculptures of the garden receive occasional damage from strong winds and high waters, but this is currently only an inconvenience, not an immediate threat. We are considering a method to increase drainage and keep water from Bayou Petit Caillou from seeping into the garden. At the same time, there is a synergy in offering visitors the opportunity to tour the garden, meet Chauvin residents and artists, and continue south to sites where coastal land loss is more apparent, leading down to the Louisiana Universities Marine Consortium (LUMCON) lab. We have recognized that keeping our site open to the public contributes to the larger community efforts to remain resilient in the face of coastal land loss. For now, these elements work together to attract a diversity of visitors ranging from art pilgrims, to social scientists interested in community migrations, to academics seeking firsthand examples of coastal land loss. In this way we believe that we are not only preserving a world-class visionary art environment but also giving back to a community that we love and support.

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URLs
https://lumcon.edu
For some artists, their canvas is their home—literally. Called by various titles—visionary artists, outsider artists, intuitive artists, environment builders—these creators transform their personal space in extraordinary ways that transcend cultural norms. Through spectacular material means, these artists integrate their work with their local environment, resulting in highly unique forms of place making.

The art forms that these artists use vary widely and might range from two-dimensional written tracts on plywood to metal sculptures of recycled “junk” to concrete buildings with embedded mosaics to unusual decorative additions made to a home or yard. Often the artists rely on inventive techniques to achieve their visions, including reworking their technical methods, revisiting existing pieces, and evolving their process of creation. The resulting installations might be immense, in size or quantity or both. They are personal statements, reflecting both the place where they are situated and the person who created them.

The Chauvin Sculpture Garden in South Louisiana is such an art environment, but it is not alone. Dotted across the U.S. and the rest of the world, these environments are considered treasures of creativity by some and neighborhood embarrassments by others. They are a type of cultural landscape worthy of study and preservation but typically quirky enough to fall outside the purview of regular heritage preservation or cultural resource management efforts.

Luckily for art environments and their artists, the Kohler Foundation and the John Michael Kohler Art Center (JMKAC), both of Sheboygan County, Wisconsin, are committed to preserving

About the photo: An intern does preservation work at the Wisconsin Concrete Park.
All photos by Anne Pryor, courtesy Wisconsin Teachers of Local Culture.
extraordinary art environments nationally and internationally through education, conservation, and creative exchange. Educators will also appreciate that JMKAC has developed a series of lessons on the art environments curated by the Kohler Foundation.

Educators can approach the JMKAC materials through the biographies of 11 different artists or through eight cross-curricular big ideas: story, transformation, place, devotion, identity, healing and well-being, nature, or objects. There also are nine beautifully designed and sometimes extensive lesson plans available for download as PDFs.

Another resource for educators is SPACES (Saving and Preserving Arts and Cultural Environments), an organization that maintains an expansive archive on art environments and self-taught artistic activity around the world. The SPACES team has digitized and made available online documentation of sites on six continents and all 50 states. Educators can use the available artist biographies, photos, videos, and maps for student exploration and inspiration. Searchable by site name or location, the online archive can also be searched by types of art environments, such as Homes Fully Transformed, Figures and Animals, Kinetic Environments, or Smaller-than-Life—all concepts that are intriguing to young imaginations.

Folkvine.org has a highly artistic design and is less straightforward to navigate than more contemporary sites. Nevertheless, its material is valuable. Created by an interdisciplinary team at the University of Central Florida, Folkvine features ten traditional artists in Florida, among whom are several who have transformed their environments in monumental ways. Each featured artist has imagery, video and audio clips, and text. One example is Taft Richardson’s garden, which includes many of his visionary bone sculptures and evokes both a community that has been displaced and the spirituality he learned from that community when it was vibrant.

Art environments can be sourced as curriculum by educators in multiple ways.

- They can serve as a jumping-off place for hands-on art making for young artists and an engaging pathway into curriculum organized around big ideas, such as “Transformation” (See JMKAC lesson plan, “Kinetic Collaborations,” pg. 178).
- A focus on art can pair with a focus on creative writing, as many visionary art environment builders concoct elaborate narratives to accompany their material creations. Upon leaving the salvage and wreckage business, Tom Every became Dr. Evermore, builder of the Forevertron, a 50-foot-long and 120-foot-tall “space capsule,” as well as many other scrap metal machines with fantastical imagined purposes. Intuit: The Center for Intuitive and Outsider Art offers a Scarecrow Flamingo Sculptures lesson plan inspired by Dr. Evermore’s Forevertron.
- STEM educators can expand into STEAM by exploring the engineering aspects of visionary sculptures, as in this lesson plan from TeachEngineering on different types of forces or this lesson from STEAM Art Room on aerodynamics.
- Place-based educators can have their students employ ethnographic research to explore the local culture, history, economy, and environment that influenced the production of the visionary environment. The Kids’ Guide to Local Culture, produced by the Madison Children’s Museum, can provide conceptual grounding and specific queries for students studying the cultural ecology of extraordinary artistic (or everyday ordinary) places in their own communities.
A folkloristic approach to visionary art environments sees them as a form of place making by individuals in dialogue with their natural and cultural environment. Folkloristic principles require focus on the artist as much as on the artwork itself, with interviews being a primary methodology for understanding the context of the creation. For example, interviews conducted with Fred Smith, the builder of the Wisconsin Concrete Park in rural Phillips, Wisconsin, reveal that some of the Park’s 237 embellished concrete statues represent community members Smith admired for occupational skills in homesteading or logging, two occupations practiced by Smith himself and key to the area’s economic identity of the 20th century. Other statues represent Native Americans, which might raise contemporary questions of appropriation for visitors to the site. In interviews conducted by Stephen Beal and Jim Zanzi in 1975, Smith explained that he was upset with racist treatment of the Ojibwe of Wisconsin and defended their right to live in their ancestral homelands not far from Phillips (Friends of Fred Smith, Wisconsin Concrete Park). The larger-than-life statues are meant to convey Smith’s belief that Native Americans should be looked up to.

Folklorists look for expressions of cultural identity in artistic creations, including visionary art environments. Visionary art environments often push up against the boundaries of what a community finds acceptable, and by exploring that prickly edge we learn about what matters most to the locality regarding its self-representation. Often, a visionary art environment becomes a safe and accepted place only after the artists’ death, when they are no longer a threat to the norm. Some members of the Phillips community found the Wisconsin Concrete Park an eyesore and hoped it would be destroyed. The Kohler Foundation, and then the nonprofit organization The Friends of Fred Smith, helped to prevent that outcome and eventually turned the site into an anchoring point for touristic and cultural activities in the community.

A similar struggle has occurred since the 2001 passing of artist Mary Nohl of Fox Point, Wisconsin, who was so ostracized during her life as to be labeled “The Witch of Fox Point.” Local critique of Nohl derogatorily reflects sexist disapproval of a single woman who eschewed social norms. Over four decades, Nohl transformed her childhood home and yard on a bluff above Lake Michigan into a visionary art environment filled with statues, paintings, carvings, assemblages, and other artistic designs inspired by the wind, sky, water, and land of her locale. Her visionary place making stood in contrast to the refined tastes of an exclusive neighborhood that grew up around her cottage, creating a conflict in the community about its identity. Since 2015, the John Michael Kohler Art Center has been leading preservation efforts of the site and working to find resolution with the local community.

Visionary art environments can be of interest and value to educators and folklorists as they can reveal fascinating intersections between design, art, engineering, physics, culture, environment, society, and place.

**Anne Pryor** is a public folklorist. She is an affiliate of the folklore program at UW–Madison, folklorist emerita of the Wisconsin Arts Board, and a co-founder of Wisconsin Teachers of Local Culture. She holds an MA and PhD in Cultural Anthropology from the University of Wisconsin–Madison.
ART CURRICULUM

KINETIC COLLABORATIONS

ARTIST CONNECTIONS:
Emery Blagdon
David Butler
Tom Every

David Butler, LA
1898-1997
David Butler brought a garden of color, form, and motion into being in the front yard of his home in Paterson, Louisiana. Based on images that appeared in his dreams, he created magnificent animals and scenes that appeared to come to life in a dynamic installation where whirligigs added sound and motion. Butler began his yard show, an African-American tradition, in the late 1960s, making what is widely regarded as one of the most important art environments ever made in the United States.

Tom Every, WI
1938-
Through an alter ego he calls “Dr. Evermore,” artist Tom Every created a sculptural environment that includes The Forevertron, an immense iron structure that reaches skyward some 50 feet and spans approximately 7,200 square feet. Every inherited a family ethos of “save everything and make do.” From youth, he learned the value of cast-off materials and gained an interest in recycling that spurred an artistic course that has culminated in a series of “mechanical fantasies.”

BIG IDEA: TRANSFORMATION
Transformation is an important and inevitable part of life. It can also result from active engagement. Art-environment builders are compelled or even driven to transform themselves and/or their environments. Art offers a medium for exploring transformation that allows for the reconstruction of the ordinary into the extraordinary.

ESSENTIAL QUESTIONS:
• What is transformation?
• Why would someone transform themselves or their environment?
• How does transforming something change its meaning?

LESSON OVERVIEW:
Students work in teams to transform ordinary mechanical objects into an extraordinary kinetic sculpture.

OBJECTIVES:
(Organized by National Core Arts Standards: Artistic Processes)
Connecting: Students will demonstrate an understanding of the idea of transformation as it applies to art and everyday life.
Responding: Students will analyze and discuss artists like Emery Blagdon, David Butler, and Tom Every, who transformed ordinary objects.
Creating: Students will effectively use a variety of tools and materials to take apart mechanical objects and reassemble into a new kinetic sculpture.
Presenting: Students will present challenges and successes of object transformation.

jm_kohlerartscenter.org/learn/educator-resources

JOHN MICHAEL KOHLER ARTS CENTER
Creating Stewardship for the Chauvin Sculpture Garden in a Coastal Louisiana Fishing Town

VOCABULARY:
- assemblage
- functionality
- kinetic
- repurpose
- transformation

ART MATERIALS:
- Found mechanical objects:
  - bicycles, motors, appliances,
  - electronic equipment, musical
  - instruments, toys, weapons,
  - pulleys, propellers, various
  - scrap metal, etc.
- Materials for assemblage:
  - wires, various hardware, zip
  - ties, duct tape, rubber bands,
  - rope, etc.
- Variety of tools

RESOURCES:
- Umbarger, Leslie. Sublime
  Spaces & Visionary Worlds.
  New York: Princeton

CONNECTIONS:
- Art History: Alexander Calder,
  Rube Goldberg machines,
  Leonardo da Vinci sketches
- Music: Video:
  OK Go “This Too Shall Pass”
  https://www.youtube.com/
  watch?v=qwiqBnYuY8
- Children’s Books:
  inventions and some real ones
  too. London, UK: Frances
  Lincoln Children’s Books
  Spires, A. (2014). The most
  magnificent thing. Tonawanda,
  NY: Kid Can Press.

DISCUSS:
- Discuss the idea of transformation with the students.
  - “What do you already know about transformation?”
  - “How have you experienced transformation?”
- Introduce, view, and discuss the work of David Butler, Tom
  Every, and Emery Blagdon. All of these art-environment builders
  transformed the ordinary into the extraordinary.
  - “What objects and materials do you recognize within these
    works of art? In what ways have they been transformed?”
  - “Why do you think the artists selected these objects?”
  - “How has the meaning or purpose of these objects changed?”

CREATE:
1. In small groups, have students investigate a variety of materials
   and mechanical objects and use a variety of tools to disassemble.
2. Teacher will demonstrate various techniques of assemblage
   and discuss various aesthetic choices (e.g., balance,
   composition, scale).
3. Students select a variety of deconstructed objects to repurpose
   into a kinetic sculpture.
4. Each group will sketch a design of their proposed assemblage
   incorporating concepts of engineering, mobility, functionality,
   and aesthetics.
5. Using a variety of tools, students collaboratively construct their
   design using problem-solving skills.

REFLECT:
- Students will discuss challenges and successes of object transformation.
  - “What was the most difficult part of this process?”
  - “What challenges emerged and how did your group work
    through them?”
  - “How did your final product compare to your original design?”
  - “How does your piece address the concepts of engineering,
    mobility, functionality, and aesthetics?”

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People in the Kumaon region of the Himalayas have used traditional knowledge and cultural practices to manage and conserve natural resources for generations. For example, rivers like Ganga and Yamuna are considered goddesses. By regarding sources of water as entities worthy of worship, locals have cared for these water bodies and protected them from pollution and overconsumption. Although people still consider water bodies and other natural resources as sacred, over the last several decades mismanagement of natural resources has reached alarming levels because of pressures from industrialization (Basant 2013). Likewise, education focused more on a Western value system is viewed as a vehicle that prepares youth to make a life outside their village community (Shiva 2000). This knowledge system based on Western values does not hold the traditional knowledge system in high regard. Western influxes have created a belief that traditional knowledge is unscientific and backward (Gupta 2007), and the system of transferring traditional knowledge from one generation to another has fallen apart.

Formal education has become more classroom-focused, and the gap between community-based knowledge and school-based knowledge is on the rise (Niraula 2007; Goonatilake 2001). As Pande points out, “In their haste to run away from the village, the young men and women do not seem to have the time to understand their own village and their own people, neither do they receive any orientation towards this in school” (2001, 48). For example, in Maichun village in the Kumaon region, *Palla* was a community activity that involved the entire village community coming together and making compost for their agricultural fields. The practice not only strengthened community bonds but also provided high-quality fertilizer for agriculture. Yet, Jackson observes,

The young youth in the village do not see compost as a resource for sustainable agriculture. In fact, they are ashamed of working on the land: the girls for aesthetic reasons (*nail paint would be spoiled* and the *compost stinks*)—were some instant remarks from girls—and the boys for livelihood (*what will we do in the village?* *We go to the city, earn money and live comfortably*—the boys say). Several families in the village now complain of declining agricultural yields, so much so that “food is not even enough for six months in a year. (2004, 96)
The example points out that since the traditional knowledge is not passed on to the next generation and the formal educational system does not focus on traditional knowledge practices, the sustainable livelihood in the village is affected. Pande adds, “These impacts were too small to be noticed in the village in the early stages and when they became apparent and obvious for everyone to notice them, it requires resources, the time, and knowledge to regenerate or improve them—a task that nobody in the village can do alone” (2001, 51). Thus there is an urgent need to bridge the gap between content provided by the school curriculum and community-based traditional knowledge.

To help bridge this gap, the Uttarakhand Seva Nidhi Paryavaran Shikshan Sanstha, a local nongovernmental organization (NGO) working in the Kumaon ranges of the Himalayas, introduced an environment education curriculum into the school system. Our Land Our Life (OLOL) focuses on local issues, and the embedded pedagogy within the curriculum tries to address the concerns of rural people in the Kumaon Himalayas. OLOL seeks to connect classrooms with actual environmental problems, identifying links between issues that reflect real-world situations and relating environmental education to the local community. The curriculum addresses not only environmental science but also environmental education for sustainability more generally. The curriculum was developed in a unique partnership with local villages and has a focus on traditional knowledge.

The course runs in all the state government schools (public schools) and is implemented from 6th grade to 10th grade. The curriculum tries to connect livelihood issues related to land, water, fodder, crops, trees, and other ecological elements to formal education in schools. The OLOL curriculum is the only course in the entire schooling system that focuses on local environmental issues and discusses these issues within the context of local empowerment. Thus, understanding the impact of this curriculum on students’ lives is important. This article discusses how youth in rural communities of the middle Himalayas use traditional knowledge to support environmental decisions; examines how the youth negotiate a balance between traditional and Western/outside knowledge; and addresses how youth apply knowledge from the OLOL curriculum in decision-making processes.

Figure 1. Map showing the location of the study area.
Our Land Our Life and the Educational Context in the Kumaon Himalayas

The Kumaon Himalayas is a region within the Himalayan mountain range that is bordered in the South by the plains formed by the river Ganga and by Tibet in the North. The population is rural, and people mostly live in small clustered villages spread across valleys and slopes. Farming is the main occupation that supports people’s livelihood and is done along terraces made on the slopes of the mountain range (Figure 2).

Regional schools provide an education geared to an urban lifestyle, not on preparing youth to lead a future in their villages. For example, textbooks illustrate computer concepts and instruct how to make PowerPoint presentations and use Word and Excel. Yet, when these books were introduced into the school system, most villages did not have electricity and the state-supplied generator was extremely noisy, therefore any computer use had to be conducted after regular school hours. Thus, computer education had very little application for village communities living in the Kumaon Himalayas. Since schools have mostly an urban-focused system, most youth (particularly boys) leave the villages and migrate to more urban areas. Thus, most villages these days consist of women who engage in agriculture and take care of homes.

OLOL takes steps in addressing some of these issues. The course focuses on the idea of the village as an ecosystem (Figure 3). The course not only discusses local problems such as land degradation and water scarcity, it also connects these problems to the broader issues of livelihood such as health and economics. For example, as a part of the course youth learn how the water supply system in their villages work and how the water system affects residents’ health. The course was designed with community input. The local women’s group was actively involved in the process and supplied examples that highlight environmental issues within the context of empowerment for women. The course includes case studies of how village women address and negotiate environmental issues along with issues related to empowerment. Finally, the course actively connects youth to their communities, requiring them to engage community members at various levels. In one unit, the youth work with community members to make a map of the village and its environmental resources. The main topics covered every year in the course are listed below (Table 1).
Table 1. Overview of OLOL Course Design (Jackson 2008)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Topics Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Support area rehabilitation project continues. Enumerating human and animal populations of study village. Measuring fodder consumption and wood production. Further ecological concepts. Introduction to national and global environmental problems. Formulation of draft plans for study of village support area rehabilitation and water use. How to build a water storage tank.</td>
</tr>
</tbody>
</table>
Prevailing Traditional Knowledge Systems and OLOL

The issue of identifying knowledge types—Indigenous Knowledge (IK), traditional ecological knowledge (TEK), or exogenous—is a complex process. There is rarely a single instance that can be one knowledge type or another. In most instances there is an overlap. Semali and Kincheloe (1999) address this complexity by pointing out that “Indigenous knowledge is an ambiguous topic that immediately places analysts on a dangerous terrain. Not only are scholars unsure what we’re talking about but many analysts are uncertain who should be talking about it.” Thus, it is important that community members get to define what is traditional knowledge and how they use it in their everyday life.

Kumaon Himalayas villagers define traditional knowledge as knowledge that their ancestors pass on to them and that evolves over time. It is knowledge that is attached to a certain place. This knowledge is also embedded in the practices that have been conducted over several generations. Understanding IK in traditional communities is fundamental to the design of any learning environment in the Kumaon region of the Himalayas (IIRR1996). The importance of out-of-school learning becomes clear when one examines the relatively small amount of time spent in school compared to other settings. Activities in homes, community centers, and after-school clubs can have important effects on students’ academic achievement (Bell et al. 2006; Bransford 2001). In the Kumaon region, learning also takes place when youth work on family farms, take cattle out for grazing, and do landscape-related work. Thus, effective instruction begins with taking into account what learners bring to the setting; this includes cultural practices and beliefs as well as knowledge of academic content. There are many studies that have shown that what people learn and how people learn is context-dependent (Mertl et al. 2007). Therefore, a learning environment that takes into consideration the context should help learners link ideas from ecology and formal science to their own lives (Burford et al. 2005). Finally, an educational initiative on sustainability that embraces IK would help learners negotiate different worldviews and value systems about development and livelihood (Palmer 1998).

To understand indigenous knowledge/traditional ecological knowledge that would be used in the classroom for water and land management better, we used the Delphi technique. The purpose of the Delphi technique is to facilitate information, opinions, and judgments from a panel of community experts to gain consensus on an issue (Dunham 1996). The usual objectives for a Delphi assignment are as follows:

1. To understand the process of delivering judgment on an issue that may need deliberation,
2. To look at commonalities between different opinions to generate a consensus among the respondents,
3. To synthesize information about a topic that spans multiple disciplines, and
4. To inform respondents about the various different facets of the topic (Turoff 1970).

This Delphi focused on what type of IK is used for water and land management related to agriculture, forestry, and soil. By focusing on the types of knowledge people use to manage land and water, we were able to make suggestions toward designing better environmental education programs for helping communities in the region better their quality of life.
Some practices for addressing environmental issues that the community members identify as based in traditional knowledge using the Delphi process follow.  

- Water is the basic necessity for life.
- A community traditionally manages water through *naulas* (groundwater springs). There is traditional knowledge associated with how to build a naula. The structure is very important because it helps groundwater come to the surface and then stay above the surface.
- To keep water sources clean, often they are designated religious and thus people must go into them barefoot, which helps keep the source clean.
- Collecting rainwater is another way to manage water traditionally.
- People plant native species (oak and deodhar cedar) to ensure maximum seepage of water into the soil. Planting these trees helps hold soil together, leading to more seepage and increasing the groundwater table.
- Digging trenches (*khals*) is another way to manage the water.
- People also build small dams (*choys*) to stop flowing water.
- To keep soil together and help stop water runoff, people build depressions (*guls*) around their farms.
- There are traditional devices (earthen pots) to store water and keep it clean.
- There is encouragement to use running water rather than stored water because running water has a natural filtration system.
- Using organic compost is important.
- Seed saving is traditionally considered good land management practice.
- Mixed farming and crop rotation practices keep land healthy.
- Healthy forests keep farms healthy by providing more organic litter for decomposition to make good compost.
- Not cutting an entire tree for fodder, cutting only lower branches, for example, preserves the tree—the healthier the trees, the healthier the soil and thus higher yields from the land.
- Sharing labor for agriculture is a good land management practice because there is community participation, ensuring everyone keeps their piece of land healthy and bad practices do not spread.
- Organic pesticides and insecticides such as walnut leaves and neem leaves are better for the land and water than industrial chemicals.

These traditional practices are embedded in the OLOL curriculum. For example, some schools in the region studied existing water systems and then designed and built their own rainwater harvesting facilities using local materials (Figure 4). Thus, the course not only involves the use of the traditional knowledge systems used by the local communities but also blends it with current best practices to facilitate the evolution of the knowledge system and optimize benefits for local communities. Our research discussed below describes the effectiveness of this curriculum on decision making.
Preparing Youth for Environmental Decision Making: Study Design

Study participants were recruited from two villages east of the city of Almora, Chanoli and Maichun. The youth were recruited from two schools, Panvanaula High School and Inter College and Garudabanj High School and Inter College. (In India, high school runs through 10th grade, while inter college includes grades 11 and 12). Both schools are run by the state government. Participation was voluntary.

To understand how youth used traditional knowledge in their decision-making processes, we conducted interviews and focus groups. The youth also participated in a role-play activity that revolved around youth assuming the role of stakeholders involved in environmental decision making and acting out case studies of community-based environmental problems. A total of 29 interviews and seven focus groups were conducted with youth from both schools. Transcription of the interviews and focus groups helped identify youths’ use of traditional knowledge.4

Results and Conclusion

When asked how they would go about solving water-related problems in their community, almost all the youth said that planting native tree species is the most important step.5 Their explanation was that the trees would hold the soil, which in turn would stop water runoff and increase groundwater tables so that springs and rivers have more water. This explanation corresponds to that given in their OLOL environmental education curriculum. The youth also mentioned using naulas, harvesting rainwater, using proper water storage, and keeping water sources clean as other ways to resolve water-related issues.

In terms of land-related issues, most youth thought that not cutting trees in their entirety was the number-one solution.6 The explanation was that cutting trees would lead to deforestation, which would cause soil runoff and be harmful to the land. A few youth mentioned mixed farming, crop rotation, organic insecticide, and seed saving as solutions for resolving land-related problems in their community. Thus, most youth indicated that currently they would use practices based on traditional knowledge to resolve some of the water- and land-related issues in their community.7

It also appears that they are aware of and recommend certain practices based on traditional knowledge that they learned in school. Based on their answers it appears that the OLOL curriculum is a major source of this knowledge; 72.4 percent of youth mentioned that they learned most of these practices in school, and 13.8 percent indicated that they learned some practices at home and some at school.8 However, the findings also indicate that although they mention that most practices they would use are traditional, it is not guaranteed that they would use them to resolve these issues in reality. This observation is supported by the data that indicate that when asked whether they prefer tap water or water from the naula, 95 percent said that they would prefer tap water. Thus, it may be possible that OLOL presents them with solutions that do not fit their reality. It is also possible that youth gave the answers they learned in school since the interviews were conducted in the school.
Therefore, a question arises about how well the environmental education curriculum fits the changing nature of the communities. The demographic of the village community has changed over time. Men often go to urban centers to seek better economic opportunities (Pande 2001). There is a need within these communities to urbanize, since that is recognized as being developed (Agrawal 2005). Thus, traditional knowledge practices are often adapted to the needs of development and urbanization. However, in the school, youth are learning about traditional knowledge systems and how these knowledge systems are sustainable because they fit the context. So on one hand, at home, there is a push toward being more urbanized, while on the other hand, at school, there is a push toward traditional practices. This struggle shows in the data as the youth are not voicing the actual changes experienced within their communities.

Thus, the OLOL school curriculum needs to fit the changing face of knowledge. The curriculum needs to recognize that people move through time and space and knowledge itself will evolve over a period of time. If the curriculum hopes to revive traditional knowledge systems among the youth without acknowledging the evolution of the knowledge base, then we think there is a fair chance of it being rejected, especially since teachers (who come from an urban area) think of this curriculum as not up to date (field observations 2005, 2006, 2007, 2008). By not recognizing the changing landscape of the traditional knowledge systems, any curriculum focused only on traditional knowledge could be seen as working against intergenerational knowledge transfer, especially since the knowledge the adults are bringing into the village from the urban centers is new and different than the traditional knowledge. Thus, even when the youth read about traditional knowledge in OLOL they continue to get a different message at home than the knowledge they are learning in school.

**Tradition and Innovation When Teaching IK and TEK**

Along with changing communities, knowledge also changes. With immigration and emigration of knowledge, the complexity surrounding what knowledge is traditional for a particular generation remains a question yet to be answered. Although the study does not directly ask these questions, they become more pressing as communities move in time and space. For example, men in the village are often employed in the urban areas and interact with urban resources such as water taps. When they come back to the village, they seek these urban conveniences and try to adapt these conveniences to their context and culture. Thus, in the process they add to the existing traditional knowledge systems. These adaptations are not always sustainable, but once in a while an adaptation such as a water tap next to a house becomes a sustainable practice. So, when should we identify the water tap as traditional? This is a complex question beyond the scope of this study, but like a restoration ecologist struggles with how far back in time one should go to restore the ecosystem to its “native” state, similarly there is a struggle here as to how far back in time we should go to identify a knowledge practice as traditional. The way traditional knowledge evolves, and what constitutes traditional knowledge, is a complex study that will require a different set of probes. But as we acknowledge the complexity of this issue, we would also like to state that we have tried to address the complexity of what is traditional knowledge by gaining consensus from local experts. The Delphi panel does not address every single complexity of how these knowledge systems are constructed but provides a starting point and good insight into the traditional knowledge systems.
Although OLOL is a powerful curriculum that focuses on local traditional practices, it needs to take into consideration the evolving nature of traditional knowledge and the applicability of this knowledge. For example, newer ecological problems have arisen during the past 20 years. With problems such as climate change looming over Himalayan communities, the curriculum needs to focus on adaptability rather than only traditional knowledge. It is important to answer how the people in the Himalayas will adapt to the changing climate and how they can collaborate with the global community in order to address newer environmental problems. Collaboration is particularly important because climate change is a global problem and actions conducted by non-local populations (urban areas in India, China, and the U.S. are the highest emitters of CO2) are affecting the local level environmental processes. The curriculum may outline a pathway toward local and global engagement of environmental problems.

In summary, the data and observations suggest that the youth are aware of traditional practices and some scientific reasons behind these practices, but they are less likely to use them in reality. There is evidence that youth are learning about different practices at the school and at home, but at this time they are unable to build bridges to integrate carefully the knowledge that they gain in these different settings. They seem to be thinking that the knowledge from home is not useful in school, and that in school they should only discuss things that they learn in the school curriculum.

It is important to bridge the gap between formal and informal learning as learners are constantly making sense of their environment in formal as well as informal environments (Bransford et al. 2006). Thus, if youth do not connect in-school (formal) learning to what they learn at home (informal), then youth are going to find it difficult to construct scientifically sound and meaningful knowledge (Hewson 1992). The youths’ underdeveloped conceptual ecology with respect to environmental problem solving is certainly going to hamper their decision making. Thus, to close the gap between formal and informal learning and empower youth to make environmentally sound decisions about their local environment in the future, OLOL curriculum designers need to realign some of the content in the curriculum with the current environmental situation of the Kumaon Himalayas. This can be achieved by the following:

- Evaluate the current environmental situation in the villages. This has to be done, as problems such as climate change are starting to create severe water problems in the Himalayas, and these new environmental problems need new strategies of adaptation and survival drawn from traditional and emergent knowledge.
- Restructure some of the content in the curriculum Our Land, Our Life based on the environmental evaluation.
- Conduct long-term ethnographic research with youth to assess long-term learning and application of knowledge.
- Prepare iterations of the curriculum based on these long-term studies.
- Connect the curriculum to other subjects and make it a truly interdisciplinary curriculum. This would also involve organizing teacher trainings to have subject teachers collaborate with each other.

As the climate changes, water and land resources in the Himalayas are changing at a rapid rate. There need to be strategies in place to help people in the Kumaon region cope with these changing times. The recommendations above are just a start, and there is plenty of more research and action...
needed to help the mountain environment and the communities that reside in the Kumaon Himalayas cope and adapt to the changing ecology of the Himalayas.

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About the photos: All photos courtesy of research personnel associated with the mountain project.

Endnotes
1. This definition of Indigenous Knowledge came directly from the Delphi procedure described in Endnote 2.
2. Thirteen participants/experts were identified and invited to participate in this consensus-building exercise. Participation was voluntary, and no compensation was offered. The participants/experts were chosen by consulting with the officials of the Uttarakhand Seva Nidhi Paryavaran Shikshan Sanstha (Uttarakhand Environment Education Center–UEEC). The criteria for selection were that the individuals have experience working with the local communities on social, agricultural, economic, and related environmental issues. The Delphi procedure was carried out in three rounds. In the first round the participants were asked three sets of questions. These questions were asked in interview format in Hindi and in English and were recorded on video. The questions were as follows:
   1. What is your definition of indigenous knowledge?
   2. What are some practices that use indigenous knowledge for water management? What is the specific indigenous knowledge used within these practices?
   3. What are some practices that use indigenous knowledge for land management (as related mostly to forests and agriculture)? What is the specific indigenous knowledge used within these practices?

   Participants were free to answer in Hindi or English: All were fluent in at least one of these languages (although the local language is Kumaoni, all schooling is conducted in Hindi and/or English and almost all local media are in Hindi or English).

   In the second round, results of the first round were transcribed and translated into English. Then both the Hindi and the English versions of all interviews were given to the participants. Thus, each participant got to see 13 answers along with his/her own. They were then requested to review their answers and change/modify them if they felt necessary.

   The modified transcripts were collected, and participants’ changes were incorporated into new transcripts. Since two participants dropped out of the protocol in the last round, only 11 answers were circulated for round 3. Participants were asked to choose the five best answers. They were then asked to rank those answers from 1 to 5 with 1 being the one they liked most and 5 being the one they liked least.

   3. It is important to note shortcomings of the Delphi panel. Although the Delphi panel identified indigenous knowledge and practices, we do not believe that they have identified all the practices that are indigenous to the region. An example is the practice of community discussions to resolve issues faced by the community as a whole. The Delphi panel has not identified this practice as indigenous, but village communities are often known to get together to resolve an issue faced by their community. The Government of India, in an attempt to restore traditional practices in village communities, encourages Panchayat Raj, a form of local government that involves community discussions and resolving issues at community level (Amstrong and Mangal-Joshi 2004). While this specific form of community discussion forum (Panchayat Raj) may not exist in the Kumaon region, other forms of community discussion forums may exist. The issue is thus nuanced and complex. The practice of using formal community discussions to resolve issues may have existed in the past (before British rule). It is documented that community discussion forums or village sabhas were part of society until 600 BC (Mathew 2000). After this, the subcontinent was broken up, and different rulers/kings governed different parts (Mathew 2000). During the British rule (which lasted about 150 years) all forms of local problem-solving mechanisms were dismantled (Mathew 2000). It was only after India regained independence that local village governing systems were put back into practice. Thus, the local community discussion forums exist in a different form than those that existed in pre-British India, which brings up the issue of how indigenous practices evolve over time.
For the purposes of this study, we have identified complex practices such as community discussions as non-indigenous practices, not only because the Delphi panel did not identify them as indigenous knowledge or practice but also because the practices themselves do not exist in their original forms. There is documentation (Shiva 2000) about how the caste system has hijacked the practice of community discussion forums, where upper caste members have an upper hand in decision-making processes. Thus, since they do not exist in their true indigenous forms, I have identified them as nonindigenous practices.

Also, some practices that the panel has identified as indigenous can also be identified as a part of the modern conservation movement that has been based on Western ecosystem science. One prominent example is the practice of planting trees. The Delphi panel identified planting trees as an indigenous practice. This practice can be seen in the modern conservation movement and stems from excessive deforestation that took place for developmental purposes. As industrialization took priority, deforestation took place at a rate that was unsustainable and thus it gave rise to the need of tree planting (Govinda and Diwan 2003). However, this is also an indigenous practice and is suggested to be a part of the sacred grove concept, where communities planted trees to appease the gods (Bhagwat 2005). Thus, for the purposes of this study, we have identified this particular practice of planting trees as indigenous knowledge.

We recognize that the issue of “what is indigenous and what is not” is far more complicated than the scope of this particular study, but the Delphi panel does provide a means to construct a reasonable list of indigenous practices within the region.

4. Once all the interviews and focus groups were transcribed, every utterance was coded for the use of indigenous knowledge as identified by the Delphi.

**Table 1. Coding for Subcategories for Interviews and Focus Groups**

<table>
<thead>
<tr>
<th>The participant is aware and thinks that the particular solution is viable.</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The participant is aware but does not think of the particular solution as viable—for example will prefer tap water</td>
<td>2</td>
</tr>
<tr>
<td>The participant supplements No IK with IK. For example, will take initiative to use naulas along with tap water and not just use the naulas when tap water runs out.</td>
<td>3</td>
</tr>
<tr>
<td>Did not mention at all.</td>
<td>4</td>
</tr>
<tr>
<td>Interview failed due to equipment problem.</td>
<td>0</td>
</tr>
</tbody>
</table>

Thus, the following is an example of the complete coding system with main and subcategories:

*Participant: If the tap water runs out we go to the village leaders or government official and get them to fix the problem and in the meantime use the water from the naulas.*

This utterance was coded for the main traditional knowledge category as **Use of naulas** and the utterance was further coded as **aware but do not think of as a viable solution to resolve the problem** – 2. The reason this utterance was coded as 2 is because although the participant is using the naula, he/she feels like the solution to resolving their problem is that the government should fix the tap. A category 1 **Aware and think of as a viable solution** utterance is “We should use the naula water and take care of the naula” and a category 3 utterance is “We use the naula and the tap water as the tap water is convenient but we cannot use it for drinking, we prefer the naula water for drinking.”

After coding for traditional/indigenous knowledge use, the data was coded for other solutions. These solutions were called exogenous or nontraditional solutions. The youth offered several with the main categories as follows:

1. Educate community members.
2. Sit together for a meeting and collectively solve the problem.
3. Since youth study these issues in school, adults need to listen to them.
4. Manage cattle grazing.
5. Petition the government/village chief to resolve the water issues.
6. Stop corruption.
7. Build hand pumps and wells.
8. Maintain and repair existing pipelines.
Since all participants who mentioned these solutions thought of them as viable, the utterances were sub-coded as
1-Aware and think of as viable solution or 4-Did not mention at all.
There were not many nontraditional solutions presented by participants to resolve some of the land management
issues. Some were:
1 Stop pollution.
2 Control human population.
3 Stop migration toward the city.

5. Focus groups: N= 7.

Table 2. Indigenous Solutions Presented by Youth during Focus Groups to Resolve Some Issues Related to Water

<table>
<thead>
<tr>
<th>IK</th>
<th>Aware and think is viable solution (n)</th>
<th>Aware but does not think of as a viable solution (n)</th>
<th>Participant use both IK and non IK (n)</th>
<th>Did not mention at all (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of naulas</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Keep water resource clean</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Rainwater harvesting</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Planting trees</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Proper water storage methods</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Trenches</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Use of running water</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Guls</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Choys</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

Interviews: N = 29

Table 3. Indigenous Solutions Presented by Youth during Interviews to Resolve Some Issues Related to Water

<table>
<thead>
<tr>
<th>IK</th>
<th>Aware and think is viable solution (n)</th>
<th>Aware but does not think of as a viable solution (n)</th>
<th>Participant use both IK and non IK (n)</th>
<th>Did not mention at all (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of naulas</td>
<td>1</td>
<td>14</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Keep water resource clean</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>Rainwater harvesting</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>Planting trees</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Proper water storage methods</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>Trenches</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Use of running water</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Guls</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Choys</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>26</td>
</tr>
</tbody>
</table>

* One interview was not recorded due to equipment failure.

6. Focus groups: N=7

Table 4. Indigenous Solutions Presented by Youth during Focus Groups to Resolve Some Issues Related to Land
Table 5. Indigenous Solutions Presented by Youth during Interviews to Resolve Some Issues Related to Land

<table>
<thead>
<tr>
<th>IK</th>
<th>Aware and think is viable solution (n)</th>
<th>Aware but does not think of as a viable solution (n)</th>
<th>Participant use both IK and non IK (n)</th>
<th>Did not mention at all (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using organic compost</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Seed saving</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Mixed farming</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Healthy forest leads to healthy farms</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Not cutting entire trees for firewood</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sharing labor for agriculture</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Organic pesticides</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 6. Where Youth Get Their Information

<table>
<thead>
<tr>
<th>Where youth get their information</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>72.4</td>
</tr>
<tr>
<td>Home</td>
<td>13.8</td>
</tr>
<tr>
<td>School and Home</td>
<td>3.4</td>
</tr>
</tbody>
</table>

* One interview was not recorded due to equipment failure.

7. The other relevant observation is that the youth were much more confident in presenting solutions to resolve water problems. When it came to answering questions related to land issues, most youth seemed like they did not know as much and thus used the information from their OLOL curriculum to answer the question. This could be because most of the youth who go to school do not go into the fields with their parents (or their parents are not farmers). However, they use water daily and are much more aware of water-related issues than land-related issues.

8. Table 6. Where Youth Get Their Information

Works Cited


Student: What new challenges do you face now that didn’t exist prior to the storm?

Bayman Tom Jefferies: After Sandy, as Freeporters, we all know things changed. There was a lot of pollution, a lot of debris. It took quite a while for the bay and the ocean to spring back. I was out of work for several months. My heart was broken. But Mother Nature is very resilient. Right now we’re almost at 100 percent back to normal since Sandy.

Bayman Michael Combs: A lot of the species disappeared, different kinds of crabs and fish disappeared after the storm.

In Fall 2012, Superstorm Sandy struck Long Island, New York, and was one of the worst hurricanes ever to strike the region. The folklife nonprofit Long Island Traditions, with the assistance of a National Oceanographic Atmospheric Administration (NOAA) Preserve America Grant, implemented a maritime traditions documentation project in the Freeport School District during the 2015-16 school year. The project looked at how Superstorm Sandy affected the seafaring community, its residents, and its maritime traditions. Freeport is a diverse community of recent immigrants and established residents. Many students were displaced into alternative schools and homes following Sandy because Freeport was one of the hardest hit communities on Long Island. As a result, the fishermen could relate to the challenges that the students faced after Sandy.

We chose to design our project with teachers so that they and their students could share their experiences with the fishermen, who were also devastated by the storm. The goal was to examine the history of this waterfront community through the eyes of tradition bearers—fishermen, baymen, boat builders, and decoy carvers—who learned these traditions within their families and communities. Freeport was once home to dozens of maritime tradition bearers who harvested finfish and shellfish in the western bays of Nassau County, using traditional rakes, nets, and flat-bottom boats. They harvested clams, oysters, menhaden, fluke, flounder, eels, and other species.
After World War II, recreational fishing became a major industry for fishermen and baymen, who harvested bait fish for the new recreational sportsmen. Although new regulations affected the commercial fishing industry, an active group of fulltime commercial fishermen worked until Superstorm Sandy.

Long Island Traditions began our school programs in the district in 1988 to bring students, their families, and the community together. Since then, we have featured master maritime tradition bearers identified by our staff and consulting folklorists through fieldwork that began in 1987 and continues. Fieldtrips to the commercial fishing district and maritime educational tours for the general public helped bridge the geographic and informational gap between waterfront residents and school-age families.

Our program has provided important opportunities for traditional fishermen to teach students in their communities about the ecological changes in Freeport, based on their personal observations over decades of experience. Through interviews, hands-on workshops, and fieldtrips with local fishermen, students came to understand how the traditions of commercial fishermen and baymen changed over time. After Sandy, many of our longtime program participants were unable to work with us because of the closure of the bays and the need to restore their severely damaged homes, docks, and boats. Thus, we began this new project in Fall 2015—with substantial funding and support from the school district—to incorporate stories of Sandy and the effects of this disaster.

Fifteen 4th-grade classes with 700 students from three elementary schools participated. Many came from established African American families and Latino families who were first-generation Americans. We began with a planning meeting that all participating teachers attended to discuss potential student projects, curriculum approaches, tradition bearers, and resources. As people who

The last few years before the storm we caught plenty of fish. After the storm it was a living nightmare. Besides the waters being closed for clamming, you couldn’t even drive through town; there were boats in the road everywhere. It was devastation everywhere.

--Joey Scavone, Commercial Fisherman, Freeport

Photo of Freeport during Sandy by Ben Jackson.
experienced the storm, we felt the program should respond to teachers’ perspectives on how Freeporters survived and coped with the storm. The teachers suggested creating a maritime magazine with a variety of writings, including stories that Long Island Traditions had collected from storm survivors, photographs of the tradition bearers at work, and vocabulary terms commonly used by the tradition bearers.

Teachers and school staff, including the librarian and curriculum specialists, decided to begin with two class presentations by baymen Tom Jefferies and Michael Combs of Freeport. Both suffered from Superstorm Sandy on a personal and an occupational level. Using photographs, the two discussed their harvesting activities, their backgrounds, and how Superstorm Sandy affected their occupational culture. The photographs came from Long Island Traditions fieldwork journeys with each of the baymen prior to and after Sandy and from public archival collections including NOAA and the Federal Emergency Management Agency (FEMA). After asking questions of the baymen, students shared their own experiences of Sandy. Next, students recorded interviews with Tom and Michael that became the basis for a video production. They had developed questions beforehand and conducted the interview using an iPad and a microphone. Questions focused on occupational experiences, Superstorm Sandy, and changes in the bay.

The second project component was a hands-on workshop the week following the baymen’s presentations. There were also 20-minute interview sessions with more tradition bearers on creating a traditional maritime object or using a traditional skill such as net mending, trap building, and decoy carving. Students conducted interviews with 12 tradition bearers during the workshop. Students were split into small groups, allowing for personal interactions with participants, including commercial fishermen who worked inshore and offshore, decoy carvers, boat builders, model makers, net menders, and trap fishermen. Students recorded interviews with the fishermen during the workshop and in the school library. One teacher worked with the students to produce a finished video based on their interviews and research.

Since fishing in the winter is severely limited in the mid-Atlantic, these school-based activities took place in the winter months when tradition bearers are more available. In addition, schools have more time for extended school residencies such as this one, enabling us to offer an immersive experience. The project also helped teachers prepare their students for English Language Arts exams by offering engaging alternative written materials reflecting local culture other than those typically used for test preparation. One alternative resource we provided was Maritime Magazine, a student-oriented collaboration between our staff and the teachers. The magazine features first-person narratives that we collected, photographs, drawings, and a glossary of common local maritime terms.

The final program element was a fishing trip onboard the Miss Freeport, a charter boat that specializes in educational experiences. Students learned to fish in the bay and near the inlet.
Additionally they developed knowledge about the different species in each habitat location, changes to the habitat since Sandy, and different kinds of bait. For many this was their first time fishing or being on a fishing boat. Students and their teachers documented the trip through video that was incorporated into the final production.

To edit a final video, teachers first asked students to identify passages in their recordings that had special significance to them. These generally fell into the categories of occupational culture and storm experiences. Students worked in groups and reached consensus on the final excerpts. They also worked with one of the classroom teachers who had special training in school-based film production to develop an engaging video, A Time for Change, which highlighted their experiences as well as the knowledge of the tradition bearers.

In 2017, Long Island Traditions produced an exhibit about storms and hurricanes, In Harm’s Way. Professionally produced videos using our archival materials accompanied it. One video examined fishermen’s experiences during Sandy and became part of the curriculum for the 2018 program. The eight-minute film featured fishermen from the South Shore of Long Island, where the storm hit hardest, and included segments from inshore and offshore fishermen. This year the video introduced new students to the project and served as a starting point to develop questions for tradition bearers, for example: Where are their boats docked? What are challenges to their occupation? And, which skills helped them before and after Sandy?

This project was feasible because of our longstanding relationship with the school, the students, their teachers, and the fishermen. Since 1987, we have been working with the school district and local tradition bearers. We had long-established relationships prior to Sandy. As a result, we were able to conduct interviews within the community shortly after Superstorm Sandy. In addition, we had worked with the school district, so there was respect for our program and we could design this new project collaboratively. Enough time had passed since the storm that students and teachers were no longer coping with the immediate trauma of the storm, yet there were still important memories that could connect the participants to the event.

Other factors helped. We had robust funding from a variety of sources, including NOAA, the National Endowment for the Arts, the New York State Council on the Arts, and the school district. In addition, the school district allocated sufficient staff development time so that teachers could work directly with us in planning and executing the program. As noted earlier, the district also had technological resources to develop the multimedia materials, and each classroom had appropriate equipment to develop and present the materials that students created.
Documenting Disaster: A Student and Teacher Learning Experience

Documenting disasters like Superstorm Sandy can be full of challenges and rewards to the community. Such programs provide a safe space where community members who have limited contact with one another can establish close relationships across many boundaries. The program helped participants learn from one another, in a multidisciplinary environment that encouraged reflection and creativity. By focusing on local ecological knowledge and occupational traditions, the project opened new doors and ways of looking at their community for all the participants. While we hope the ravages of natural disasters spare our hometowns, tornadoes, superstorms, and hurricanes unfortunately seem to be growing more common. We offer this program as an educational tool that may help people in other places cope.

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Endnotes
1. The video can be seen at https://www.youtube.com/watch?v=FlaUOTyj8Qo&index=3&list=PL_pPoNAr0k3uqIVl2V9fJQl6HjyLPhOE.

URLs
http://www.longislandtraditions.org
Student film: https://youtu.be/FChSLCyVo9E
Student powerpoint: https://freeport.edu.buncee.com/buncee/aaa3ae4313cb4bfa01ae4a69174f947
In Harms Way: https://www.youtube.com/watch?v=FlaUOTyj8Qo&index=3&list=PL_pPoNAr0k3uqIVl2V9fJQl6HjyLPhOE

Resources
FEMA Media Gallery https://www.fema.gov/media-library
Long Island Studies Institute https://www.hofstra.edu/library/libspc/libspc_lisi_main.html
NOAA Image Gallery http://www.photolib.noaa.gov/index.html
NOAA Voices from the Fisheries https://www.voices.nmfs.noaa.gov
NOAA Voices from the Fisheries: LI Traditions Climate Change and Sandy Collection https://www.st.nmfs.noaa.gov/apex/?p=213:6::NO:RP::
Freeport School District Project Video https://youtu.be/FChSLCyVo9E

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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 ʻāina, 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 ʻāina 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 ʻāina 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 ʻōlelo 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 ʻōlelo 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, Noëlani 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 ʻāina 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 craftng, 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 ʻāina 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).

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 place-based 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 ʻāina 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 ʻāina, 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 a 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 ʻāina and people—can get in the way of truly appreciating what others bring from their homelands and home cultures.

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

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A Legend

In Hawaiʻi 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, Wākea 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 ʻāina. 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 ʻāina (children of the land). It is from the ʻāina that Native Hawaiians grew, and it is through the ʻāina that Native Hawaiians will be sustained.

(Lindo 1980)
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 sensibilities117(190,525),(390,586), 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

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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 ʻāina on their own terms. By re-centering 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 ʻāina, 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 ʻāina 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 of relationship that contribute to their well-being as well as the sustainability of local cultural and ecological worlds. A particularly good illustration of an Indigenous-centered 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 6th 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


Developing the Capacity for Tolerance through Folklife Education. http://d-scholarship.pitt.edu/id/eprint/33691 (Deafenbaugh 2018)

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 counter-storytelling 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.
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

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

Journal of Folklore and Education (2018: Vol. 5)
Cultivating Aloha 'āina Through Critical Indigenous Pedagogies of Place
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 'īwe (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.” 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.

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 Western, state-sanctioned criteria (Goodyear-Ka'opua 2013). They use 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 'āina 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.
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 off-season 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-adoptions, 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'o (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](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 co-development 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‘okūa‘uhau, 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 home-making. 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, rehabilitation 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.

Journal of Folklore and Education (2018: Vol. 5)
Cultivating Aloha 'āina Through Critical Indigenous Pedagogies of Place
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*

<table>
<thead>
<tr>
<th>English</th>
<th>Hawaiian</th>
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<tbody>
<tr>
<td>Aloha ‘āina: Love, care, devotion to the land</td>
<td>Lōkahi: Balance, harmony, unity</td>
</tr>
<tr>
<td>‘Āina: Land</td>
<td>Mālama i ka ‘āina: To sustain or care for earth</td>
</tr>
<tr>
<td>'Ike kūpuna: Knowledge of and from ancestors and elders</td>
<td>Mele: Song</td>
</tr>
<tr>
<td>Kalo: Taro Plant</td>
<td>Mo‘okū‘auhau: Genealogy, ancestral linkages, intergenerational connections</td>
</tr>
<tr>
<td>Keiki: Children</td>
<td>Mo‘olelo: Stories/ narratives/ histories</td>
</tr>
<tr>
<td>Kuleana: Responsibility</td>
<td>‘Ohana: Family</td>
</tr>
<tr>
<td>Kūpuna: Elders/ ancestors</td>
<td>‘Ōlelo Hawai‘i: Hawaiian Language</td>
</tr>
<tr>
<td>Lau: Leaf</td>
<td>‘Ōlelo no‘eau: Proverb</td>
</tr>
<tr>
<td>Lo‘i kalo: Taro patches</td>
<td>Piko: Center</td>
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</tbody>
</table>

*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.

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Journal of Folklore and Education (2018: Vol. 5)
Cultivating Aloha ʻĀina Through Critical Indigenous Pedagogies of Place
Good Work: Masters of the Building Arts, by Marjorie Hunt and Paul Wagner

(2016. 65 min. DVD format, black and white, and color. Smithsonian Center for Folklife and Cultural Heritage and American Focus, Inc., Washington DC.)

Nicole Musgrave holds her MA in Folk Studies from Western Kentucky University. She currently serves as the Folk Arts Education VISTA member at Hindman Settlement School.

Good Work: Masters of the Building Arts is an insightful documentary film that captures the skill, commitment, and quest for excellence of master craftworkers within a variety of building art traditions. The film features artisans from the 2001 Smithsonian Folklife Festival program, Masters of the Building Arts, as they show the astounding precision, technique, and reverence that go into their work.

The documentary uses personal interviews alongside footage of the artists at work and historical photographs to curate eight vignettes, each focusing on a different tradition. The sit-down interviews with the masters take place in their workspaces, while the filmmakers also interview the artists as they work (although we don’t hear the interviewers’ questions). As the artists explain the techniques and processes that guide their craft, we see their hands cut, paint, mold, and shape their art. This approach is effective for helping viewers get a sense of the intricacies of the work—both within “high style” and vernacular traditions—but without overwhelming us with too many technical details.

The first vignette features Earl Barthé, a plasterer from New Orleans whose family has been in the business since the 1850s. The second vignette centers on Dieter Goldkuhle, a stained glass artisan who spent over 30 years fabricating and restoring stained glass windows in the National Cathedral in Washington DC. The third vignette follows third-generation stone carver and calligrapher Nicholas Benson of Newport, Rhode Island, as he designs lettering and carves inscriptions onto the World War II Memorial in Washington DC. The filmmakers then travel to Boston where the father-daughter decorative painting duo John Canning and Jacqueline Canning-Riccio work to restore the interior paintings of Trinity Church. Next, the film takes viewers to Lincoln, California, with Phillip “Pete” Pederson, an architectural terra cotta specialist with Gladding McBean & Co., a company that’s been crafting ornamental façades from fired earth since 1884. The sixth vignette follows Joe Alonso, head stone mason at the Washington National Cathedral in Washington DC, as he and his crew work hundreds of feet in the air, setting stone blocks weighing several hundred tons with exacting precision. The film then turns its attention to Patrick Cardine, an architectural blacksmith in Chantilly, Virginia, who crafts intricate designs out of hot, glowing metal. Finally, the filmmakers travel to Abiquiú, New Mexico, to document adobe builder Albert Parra and his fellow craftworkers during their annual ritual maintenance of their adobe morada, a chapter house for the Penitente fraternity that was built in 1700.
Good Work: Masters of the Building Arts excellently captures the featured artisans’ relation to their craft tradition. The craftspeople interviewed demonstrate a great reverence for the masters who came before them; in several cases we see the sense of import they feel as they teach their craft to the next generation. Viewers are left with an understanding of how the artists find joy in their never-ending plodding toward unattainable perfection and how they express a sense of satisfaction from a job well done. Additionally, the filmmakers illustrate how these artists find meaning in perhaps unexpected aspects of the craft traditions—such as how tools can carry stories, and the way that restoration work connects present-day artists with past masters as a continuation of vernacular traditions.

In an educational context, this documentary would be great for challenging students to shift how they think about their built environments, prompting them to consider the stories and experiences of the often anonymous individuals who create the structures in our everyday lives. This film is also useful for demonstrating fieldwork techniques, such as what topics to discuss in an interview or how intangible aspects of belief and community can be expressed through material culture. Instructors could pair a screening of the film with an examination of buildings or with visits from craftworkers. The Smithsonian Center for Folklife and Cultural Heritage also has a free activity guide that can be used in conjunction with a film screening (https://folklife.si.edu/masters-of-the-building-arts-activity-guide smithsonian). The structure of the film creates flexibility, too; one or two vignettes can be screened if time is limited. The only weakness of this documentary is the minimal inclusion of female voices. While it would have been nice to see more non-male representation, the felt absence perhaps points to the gendered nature of this work and could open the door for conversations about the role of gender in craft and occupational traditions.

Overall, Hunt and Wagner have created a thoughtful and thought-provoking presentation of master artisans within an array of building art traditions. This beautifully shot film is sure to inspire a deeper appreciation for and curiosity about the processes that underlie our built environments.

The Pleasures of Metamorphosis: Japanese and English Fairy Tale Transformations of “The Little Mermaid,” by Lucy Fraser (Detroit: Wayne State University, 2017, 221 pp.)

Shannon Branfield is a PhD student in the Department of English, University of Kentucky.

In The Pleasures of Metamorphosis: Japanese and English Fairy Tale Transformations of “The Little Mermaid,” Lucy Fraser explores adaptations of Hans Christian Andersen’s “The Little Mermaid” across different cultures, focusing on the portrayal of gender and how these adaptations highlight the pleasure of transformation. She examines both the transformations characters undergo and the transformation of the story as part of a rich intertextual framework that audiences bring with them. Her attention to pleasure as a theoretical framework allows her to draw connections between disparate texts, bringing together stories ranging across the globe, from 1891 through 2008. With her focus on a cross-cultural analysis, she is careful to avoid a Western-centric approach, engaging with texts and scholarship from Japan. She notes the problematic Orientalizing of framing texts in terms of “West” and “East,” and avoids...
such categorization. Throughout her study, Fraser’s attention to the knowing audience and their informed enjoyment of fairy-tale adaptations adds a valuable dimension to understanding the uses and effects of transformation in this tale. Although this book focuses on “The Little Mermaid,” a study of transformation has wide application across other fairy tale types.

For readers who may be unfamiliar with the multitude of adaptations of Andersen’s “The Little Mermaid,” Chapter 1 provides a history of the story, its reception, and its adaptations, in Japan and Anglophone countries. Chapter 2 focuses on two of the most well-known adaptations in those worlds, Miyazaki’s *Ponyo* and Disney’s *The Little Mermaid*, respectively. Chapter 3 continues the cross-cultural approach by examining literary stories from Japan and England that use familiar fairy-tale conventions, an approach that is contested in the Japanese feminist revisions of Chapter 4. Chapter 5 uses a girls’ studies approach to understand the knowing audience of these retellings, while Chapter 6 further diversifies the analysis of these stories by incorporating postmodern engagements. The range, and sheer volume, of adaptations included make this a useful study for both fairy-tale scholars who want to expand beyond Anglophone fairy-tale retellings, as well as those with an interest in adaptation theory, gender theory, and global literature.

Given the number of tales that readers will likely be unfamiliar with, Fraser is diligent in her explanation of story and context. Her translations are particularly well done, including both the denotative and connotative meaning, so Anglophone readers can understand the nuances in these texts. At times, however, the expanse of the project seems to limit the depth of the analysis, as Fraser raises many points that are not fully explored. This is most noticeable in Chapter 2, as discussions of gender performance, and issues of voice, silence, and writing are cut short. Whether this is due to the difficulty of addressing two such long and influential adaptations in one chapter, or a desire to save space for less familiar texts, the familiarity of Disney’s *The Little Mermaid* and Miyazaki’s *Ponyo* make a detailed and attentive analysis of these texts more necessary.

In all, however, Fraser has compiled an impressive collection of stories from a variety of countries, time periods, and media. Incorporating literature, film, and television, her texts well represent the multimedia web of contemporary fairy tales and the way they influence and are influenced by other adaptations. She is careful to trace lines of influence from text to text, based on known encounters, not surmise, a precision that strengthens the connections she draws between retellings. The varied theories Fraser uses to engage with the texts gives this book applicability to a range of fields beyond folklore, such as film studies, gender theory, and narrative theory, and she ensures that the material is accessible to those not familiar with the source material.

The Caribbean Story Finder: A Guide to 438 Tales from 24 Nations and Territories, Listing Subjects and Sources, by Sharon Barcan Elswit

Tricia Ferdinand-Clarke is at Indiana University, Bloomington.

There are any number of reasons to tell a story. They can be meant simply to entertain, to teach, to subvert those in power, or all of the above. As
Sharon Barcan Elswit observes in her introduction to *The Caribbean Story Finder: A Guide to 438 Tales from 24 Nations and Territories, Listing Subjects and Sources*, for some people “storytelling, and wordplay may be powerful tools to keep their spirits alive” (3). This was certainly the case for those people who were taken from Africa, enslaved, and sent to various parts of the Caribbean region. For these people, and for the generations of people who came after them, storytelling held (and still holds) immense cultural significance.

*The Caribbean Story Finder*, one of several story guides written by Elswit, is a classification system of tales found in the Caribbean region. Elswit’s first story finder book was developed as a tool to help her locate tales that were often located in larger collections, and as a way to assist with educators who needed help “find[ing] the right story for the right time” (7). She originally intended to include Caribbean tales in her *Latin American Story Finder* but observed that despite their common origins, many Caribbean tales were so distinct that she decided to create a separate guide specifically for tales found in the Caribbean region. Elswit includes a very cursory history of colonization and creolization in the Caribbean and the resultant cultural production, and also briefly discusses the social and historical contexts of the tales. The 438 stories collected here come from a range of print and various online sources, including recordings and storytelling performances on the web. Elswit chose stories that were readily accessible to her in the U.S. and that were recorded either in English or in a creole that was easy for English speakers to understand. She included no sources that had not already been written or recorded somewhere. The large majority of the stories come from Jamaica, Haiti, Cuba, Puerto Rico, and Trinidad and Tobago, but there are a few stories from places like Belize and the U.S. Virgin Islands as well.

The book is separated into eleven different categories or subjects, which are then further subcategorized into related stories. For instance, under the subject “Musical Tales” there is a story titled “The Singing Bone.” Each story is numbered and under the title lists the author, the name of the source from which the tale was collected and, depending on the story, in what format it could be found (some are available both in print and online). For many of the stories, the guide also lists the ethnic group most associated with the tale as well as its country of origin. Each story is summarized, preserving the local spelling, grammar, and creole dialogue found in the source. Elswit also includes at least one variant for most of the featured stories. Some variants are what she calls “reappearances,” stories re-printed in new collections, while others are new versions of the same basic plot. The guide lists both kinds of variants, if applicable, under each featured story. Each entry also features a section called “connections”, which are essentially key terms that more resemble the folkloristic concept of motif. Elswit has also included three different appendices: Appendix A helps to identify and explain the geographic locations some stories originate from (for example stories from the Greater Antilles versus those from the Lesser Antilles) and to help differentiate between the terms “Caribbean” and West “Indies.” It also outlines some of the historical, cultural, and/or political connections between Caribbean islands and outside nations. Appendix B contains references for those interested in finding more tales in various creoles and Appendix C is the Glossary and Cast of Characters.

While not strictly a scholarly resource, this book readily references a number of scholarly sources as well as several important titles and collections from the fields of Caribbean literature, cultural studies, linguistics and folklore. Elswit was limited in her access to some collections, as some materials were out of print and others were only accessible in published form by local publishers.
in the Caribbean. Furthermore, the fact that some stories are strictly relegated to oral tradition and have no written records also meant their exclusion from this guide. Nonetheless, Elswit acknowledges that *The Caribbean Story Finder* is not an exhaustive list of tales found in and around the region. While I am not entirely convinced that this guide is any more accessible or useful to educators than the Aarne-Thompson-Uther Classification system, it is particularly useful as a starting point for those interested in Caribbean oral narratives.

The Liberation of Winifred Bryan Horner: Writer, Teacher, and Women’s Rights Advocate, as told to Elaine J. Lawless (Indiana University Press, 2017, 232 pp.)

Lisa L. Higgins, PhD, is Director of the Missouri Folk Arts Program, a joint program of the Missouri Arts Council, a state agency, and the Museum of Art and Archaeology at the University of Missouri.

Readers of Elaine J. Lawless’s bountiful scholarship in folkloristics might find *The Liberation of Winifred Bryan Horner* to be a departure from the acclaimed folklorist’s usual themes in the sociolinguistics of belief, the transformative power of narrative, and the utilization of performance theories toward social justice. Lawless’s seventh book is the unexpected result of a decades-long friendship between two feminist educators. The book is decidedly the life story of Winifred Bryan Horner, “as told to” Elaine J. Lawless, especially during Horner’s final months, when they recorded stories and conversations that Horner intended to share in her autobiography: *I want to tell this story because from my present vantage point it seems unbelievable as I look back* (xviii). After Horner died in 2014, Lawless “liberated” Horner’s narratives from her friend’s extensive personal archive, many hours of recorded interviews, and a deep well of memories. In the research and writing, Lawless remains true to her folklore training and theory of reciprocal ethnography. In their collaboration, Winifred Bryan Horner fulfilled her desire to author her memoir. The rhetorician’s stories are foregrounded, while the folklorist has framed the composition.

In eight chapters, organized chronologically, Lawless has assembled Horner’s life story, from precocious young “Wini’s” childhood in St. Louis, Missouri, to Professor Horner’s illustrious career in the field of Rhetoric and Composition studies—a life and career that were fraught with challenges not atypical for a female (and a feminist) educator of her era. Upon retirement from her prestigious endowed chair at Texas Christian University, Horner returned to Columbia, Missouri, at age 76 to live out her days with that which she always loved the most: family, friends, and writing. In “retirement,” Horner continued to teach, and she intended to write her autobiography. In effect, Horner hoped to age creatively, writing a memoir and teaching adult learners the art of crafting their own life stories. Teaching came more easily than writing, and Lawless eventually convinced her friend to sit for conversations that Folklorist Darcy Holtgrave video-recorded. All hoped that telling the stories aloud and working from transcriptions would surmount Horner’s uncharacteristic writer’s block.

Horner and Lawless fatefuly met in 1983 in Columbia, Missouri, when the latter came for a campus visit at the University of Missouri (MU) during a job search. Lawless soon accepted an
offer for the tenure-track position in Folklore in the Department of English, and their friendship took root. Perhaps it is only in a university’s Department of English that an expert on Scottish rhetoric and a scholar of Pentecostal folk beliefs can forge a lasting relationship inside and outside the halls of academia. When English departments are homes to Rhetoric and Folklore, as well as the more standard literary and linguistic studies, the departments may tend toward internal, interdisciplinary approaches to narrative and writing. In that academic “home,” Lawless credits Horner, then a full professor in Rhetoric and Composition, as a key mentor at MU who provided relentless encouragement and distilled wisdom in all things, including departmental politics. As a folklorist myself, I read the book as a documentation of occupational folklife, via both written and oral personal experience narratives, of a female professor navigating academia in the second half of the 20th century. By extension, these two feminist educators also document a cohort of their predecessors, their peers, and their mentees—the next generation of female and feminist scholars who bridge the 20th and 21st centuries. In fact, I studied both Folklore and Rhetoric at MU (and worked as a graduate assistant briefly for both Lawless and Horner) at the turn of the century and count myself a member of that cohort and a beneficiary of their legacy.

When Horner died somewhat unexpectedly at 91 in 2014, Lawless inherited the project with Horner’s family’s blessing. Lawless, ever a narrative scholar, worked to cull the most salient stories from Horner’s repertoire and to position them chronologically and strategically. She placed Horner’s voice verbatim, written or spoken, extensively in long quotes cut from childhood diaries, personal journals, and their recorded interviews. Lawless consulted Horner’s family members to choose twenty-eight photos that illustrate Horner’s life, from a St. Louis childhood through World War II, life on a rural Mid-Missouri family farm, and decades of persistence as she achieved recognition as a writer, professor, and ground-breaking scholar.

The Liberation of Winifred Bryan Horner is part Bildungsroman and part operation manual. Lawless and Horner offer a window into piecing and stitching a life story from primary and secondary sources. The final product is a complex ethnographic negotiation between two writers, teachers, and women’s rights advocates. I plan to recommend and share the book with my colleagues, especially those in folklore, rhetoric, and women’s studies. Additionally, the book would be an engaging and inspiring text for courses in Educational Leadership, or simply in job search workshops for professional and graduate students, especially in the humanities and education. Win Horner’s story is also one that I hope to share, perhaps in a virtual book club, with friends and family members who strive to forge their own paths amidst staid cultural traditions and persistent patriarchal challenges in occupational settings and personal relationships. In Horner and Lawless’s pages, I hope readers recognize the progress that ensued since Horner launched her career and the power of narrative to displace the barriers that remain.
2019 Journal of Folklore and Education: Call for Submissions

The Journal of Folklore and Education is a peer-reviewed, multimedia, open-access journal published annually by Local Learning: The National Network for Folk Arts in Education. Local Learning links folk culture specialists and educators around the world, advocating for inclusion of folk and traditional arts and culture in education. We believe that "local learning"—the traditional knowledge and processes of learning that are grounded in community life—is of critical importance to the effective education of students and to the vigor of our communities and society.

JFE publishes work representing ethnographic approaches that tap the knowledge and life experience of students, their families, community members, and educators in K-16, higher education, museum, and community education. We intend our audience to be educators and students at all levels and in all settings, folk culture specialists, and those working in community-based organizations. As a digital publication, the Journal of Folklore and Education provides a forum for interdisciplinary, multimedia approaches to community-based teaching, learning, and cultural stewardship. It is found at www.locallearningnetwork.org.

The 2019 theme is The Art of the Interview. Interviewing is a core methodology in the field of folklore and a technique often used in K-16 education. Folk arts interviews teach important details about cultural context, artistic expression as communication, and the ways stories can help us better understand our communities. The practice of interviewing integrates well with many K-16 curricular areas and education standards so that art and culture can be embedded in additional subject areas. Providing specific curricular examples of interviewing for folk arts education will expand educators’ options when using interviewing as a learning tool.

This JFE special issue will include work that illustrates HOW to do an interview, WHY use interviews as a part of one’s curriculum, and WHAT can be done with completed interviews.

Essential questions that contributors may use to inspire their writing include the following:
~ How can one best prepare students, artists, and others for interviewing? How can you design an interview project for desired student understanding?
~ How might interviewing with an attention to local knowledge enhance other inquiry-based research models being used in learning spaces?
~ How can the tools of folklore such as observation, identifying important traditions and rituals, and collecting personal experience narratives through interviews create opportunities for addressing significant social questions?
~ What role can emergent and interactive ethnography play in educational settings? How has digital technology influenced the outcome and approach to interviewing?
~ How may interviews be integrated with the arts, be seen as art themselves, or become a part of constructing the idea of who may be an “artist”?
~ How can educators from multiple disciplinary areas, including science, social studies, composition, or literacy, use interview practices in their teaching?
~ How does a folkloristic, ethnographic approach to working with learners in a classroom, museum, or community setting connect them with cultural knowledge systems different from their own and deepen their understanding of their own places?
~ How can university teacher-preparation programs include ethnography as a key part of their pedagogy?
~ How can the field of folklore help address “tough conversations” or controversy found in contemporary discourse surrounding the education achievement gap or structural racism of schools and their communities? How might this help us serve learners with diverse perspectives in our classrooms?

More about Submissions: We seek submissions of articles, model projects, multimedia products, teaching applications, and student work accompanied by critical writing that connects to the larger frameworks of this theme. We particularly welcome submissions inclusive of perspectives and voices from represented communities. Co-authored articles that include teachers, administrators, artists, or community members offer opportunities for multiple points of view on an educational program or a curriculum. We publish articles that share best practices, offer specific guides or plans for implementing folklore in education, and articulate theoretical and critical frameworks. We invite educators to share shorter pieces for “Notes from the Field.” Nontraditional formats are also welcomed, such as lesson plans, worksheets, and classroom exercises. Media submissions, including short film and audio clips, will also be considered. We highly recommend reviewing previous issues of JFE (see www.locallearningnetwork.org/journal-of-folklore-and-education/current-and-past-issues). Be in touch with the editors to learn more and see whether your concept might be a good fit.

Research-based writing that theorizes, evaluates, or assesses programs that use folklore in education tools and practice are also welcomed. These research articles may intersect with the theme “The Art of the Interview,” but all submissions with a research component will be considered. We expect that research projects will have appropriate institutional permissions for public dissemination before submission to JFE, including approval from Institutional Review Boards (IRBs) and/or data licensing for the acquisition of existing data, as may be required. See the protocol for publishing a study used by ArtsEdSearch (http://www.artsedsearch.org/about/submit-a-study#Review_protocol) for guidance.

Format: Articles should be 1,500-4,500 words, submitted as a Word document. We use a modified Chicago style (not APA) and parenthetical citations. All URL links hyperlinked in the document should also be referenced, in order, at the end of the article in a URL list for offline readers. Images should have a dpi of at least 300. Be in touch with the editors to discuss submission and media ideas and to learn formatting, technical specifications, and our citation style template.

Contact editors Paddy Bowman at pbbowman@gmail.com or Lisa Rathje at rathje.lisa@gmail.com with ideas for stories, features, lessons, and media productions. You may also request a citation style template. Initial drafts of submissions are due April 15, 2019.

Please share this announcement with colleagues and educators in your community. This endeavor is supported by the National Endowment for the Arts.
The *Journal of Folklore and Education* is a publication of Local Learning: The National Network for Folk Arts in Education

Local Learning connects folklorists, artists, and educators across the nation and advocates for the full inclusion of folklife and folk arts in education to transform learning, build intercultural understanding, and create stronger communities.

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Please support *The Journal of Folklore and Education* so that we can continue to provide this free resource.

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The Art of the Interview

The *Journal of Folklore and Education* Volume 6 will be published in September, 2019

Our advisory committee for Volume 6 issue includes:

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- Diana Baird N’Diaye
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**About the Editors**

**Paddy Bowman** is Founding Director of Local Learning and creator of numerous folklore and education resources. She co-edited *Through the Schoolhouse Door: Folklore, Community, Curriculum* (2011) and co-wrote a chapter in *Folklife and Museums*. She was awarded the 2013 American Folklore Society Benjamin A. Botkin Prize for Lifetime Achievement in Public Folklore and in 2016 was named a Fellow of the American Folklore Society. Reach her at pbbowman@gmail.com.

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**Tim Frandy** is Assistant Professor of Folk Studies at Western Kentucky University. His research involves folklore and environments, the medical humanities, cultural worldview, informal economy, and cultural sustainability. He has worked with subsistence hunters, trappers, fishers, wild-ricers, berry pickers, traditional healers, bushcrafters, and traditional artists in northern Indigenous and settler communities.