

Placing Indigenous Traditional Ecological Knowledge at the Center of Our Research and Teaching

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University of Oregon Honors College students with Tribal Elders Myra Johnson Orange, Beverly Beers, Ruth Lewis, and Randall Lewis outside the Warm Springs Museum, Fall 2014.

Photo courtesy Jennifer O'Neal.

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’alap^huya ili?i (‘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

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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.



Georgitis visually inspects a reel.
Photo by Emily West Hartlerode.

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.



Dallas Winishut, Ichishkin language instructor, threads a test reel.
Photo by Sanna Parikka.

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.



Nathan Georgitis (right) begins training Dallas Winishut (center), and Greg Arquette (left) looks on.
Photo by Emily West Hartlerode.

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 Ichishkiin-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 Ichishkiin 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, "*Áchaxwiilhtaam pyaxinan* (You slip the skin off bitterroot)" (Beavert and Hargus 2009, 26), using a verb (*chaxwiilk-*) 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.



Wák'amu (camas) teaching materials. Drawn by Kara Romriell.

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).

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, ethnohistory, 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>.

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.

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 scholarly

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 Garrouette and her concept of “Radical Indigenism” articulated in her book *Real Indians: Identity and Survival of Native America* (2003). Garrouette 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. (Garrouette 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 has 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).



Myra Johnson Orange leads a guided tour through the Warm Springs Museum, Fall 2014. Photo by Jennifer O’Neal.

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-nee-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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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.

Joana Jansen is Associate Director of the Northwest Indian Language Institute at the University of Oregon. She works with speakers and learners of Indigenous languages at UO and beyond to support language documentation, description, and teaching goals; pedagogical grammar development; and language curriculum and materials development, particularly place-based curriculum. She works as a part of a team to build Ichishkiin language curriculum and assessments. Research interests include language teacher education, collaborative research models for mutually beneficial work involving academic institutions and Tribal communities, and linguistic description, analysis and revitalization of the Ichishkiin/ Sahaptin language.

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URLs

OFN video: https://www.youtube.com/watch?v=6o_jQOZ2dNw

How-to-guides: <https://blogs.uoregon.edu/toolkit/archiving-and-publishing-your-documentation/archiving>

Neskowin Valley School: <http://neskowinvalleyschool.com>

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