The erosion of Indigenous food systems as part of European and Euroamerican colonization has resulted in a parallel erosion of Indigenous health, lands, and cultural knowledge. In rural southeastern North Carolina, residents of Robeson County are primarily Lumbee Indians who have been impacted by economic, ecological, and health concerns resulting from colonialism’s historical legacy, even as many have worked to safeguard select traditional ecological knowledge. To highlight sustaining community health as fundamental to Native sovereignty, I include service-learning in the Introduction to American Indian Studies (AIS Intro) course I team-teach at The University of North Carolina at Pembroke. Service-learning activities at Hawkeye Indian Cultural Center – the only organic farm in our region – strive to underscore to students, service-learning’s potential to foster university-community partnerships, to recuperate and sustain local ecological knowledge and Indigenous food traditions, and to enhance the health of our students and community members.

Recognize whose lands these are on which we stand. Ask the deer, turtle, and the crane. Make sure the spirits of these lands are respected and

Jane Haladay, University of North Carolina at Pembroke
treated with goodwill.
*The land is a being who remembers everything.*
—Joy Harjo, “Conflict Resolution for Holy Beings”

The United Nations Declaration on the Rights of Indigenous Peoples (2007), Article 31 (1.), outlines the inextricable interrelationship of Indigenous peoples with their homelands and sacred sites. Article 31 asserts Indigenous peoples’ rights to sustain those relationships, and “to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions” through a variety of forms that include control over “human and genetic resources, seeds, medicines, [and] knowledge of the properties of fauna and flora…” (11). The fact that *The United Nations Declaration on the Rights of Indigenous Peoples* (*UNDRIP*) exists at all, is both a testament to more than twenty-five years of Indigenous people’s advocacy for their rights, within and against the nation states in which they now exist and a consequence of the need to publicly declare human rights that existed without interference, prior to the slew of genocidal policies and practices over the course of more than five centuries that has resulted in irrevocable losses to Indigenous populations, homelands and ecologies, and systems of cultural and spiritual knowledge.

In his incisive analysis of the *UNDRIP* and the environmental reasons for the necessity of its implementation, attorney and legal scholar Walter Echo-Hawk (Pawnee) describes how “[a] land ethic helps humanity lead a sustainable existence, as every civilization must.” This land ethic “is also a key ingredient to social change,” Echo-Hawk argues, one that must be adopted by “a more just culture that has adapted to the land and incorporates valuable indigenous knowledge and values of its native peoples into the social fabric.” Ultimately, Echo-Hawk envisions the social justice arising from the incorporation of Indigenous land-based knowledge as “a natural healing and adaptation process followed by immigrant populations in colonized lands. In the post-colonial era,” he believes, settler populations must “shed the trappings of the conquerors and mindset
of colonists founded in ‘settler states’ and resolve to become more ‘native’ to place” (Echo-Hawk 133).

A powerful global human rights manifesto, the UNDRIP has particular applications in specific Native communities, including the Lumbee Indian community of Robeson County, home of the University of North Carolina at Pembroke (UNCP), where I teach. Like all contemporary Indigenous communities, the Lumbee continue to deal with the brutality of colonization’s legacy, which in rural southeastern North Carolina manifests in historical trauma, internalized oppression, violence, disproportionate rates of specific diseases, and a landscape that has been ravaged over time by The American Civil War, deforestation, and industrialized agriculture. Privileging Indigenous knowledges here is not simply a matter of turning to community knowledge bearers and listening to them more attentively; storehouses of traditional knowledge have been lost over time or deeply suppressed, and remaining cultural knowledge has adapted in ways meaningful to Native survival, so that one needs to understand what one is looking at in order to see its “tradition.” For the Lumbee people, as for many Native communities, “sustainability” has in one way meant merely to survive as Indian people in place over time. In the context of American Indian Studies education, “sustainability” here also means learning and relearning about the traditional practices of the region’s original peoples, in what forms those practices may still exist, and how understanding colonization’s impact on Indigenous lands, foodways, and health might lead to a reinvigoration of cultural community and environmental vitality in our region.

The Introduction to American Indian Studies (AIS Intro) class I teach with my colleague and chair of the department, Dr. Mary Ann Jacobs (Lumbee), has become one site where we have created curriculum aimed at developing student awareness of these crucial issues. Formalized in 1972, the Department of American Indian Studies at UNCP is the only freestanding AIS department in North Carolina, and AIS Intro is a core, required course of the AIS major. UNCP is the heart of Robeson County: ours was the first state-supported college for American Indians in the United States and is consistently named one of the most diverse regional universities in
the South by *U.S. News & World Report* (“Campus Ethnic Diversity, Regional Universities”). Recent census figures report that nearly 40 percent of the county’s population is American Indian, 32 percent is white, and 25 percent is African American, with approximately three percent of residents identifying as multi-heritage. The median income of a household in the county is $30,581 compared to the U.S. average of $53,482, and the poverty rate is 33 percent, more than twice the national average and the second highest rate of poverty in the state. Almost 25 percent of Robeson County residents under the age of sixty-five do not have health insurance (“Quick Facts: Robeson County”).

“Sustainability” here today, as in many distressed rural communities whose economies once thrived on agriculture, consists of many braided strands involving not only land-based environmental practices but also the cultural and social fabric of the region, including human health concerns and access to long-term employment. Many of these conditions have direct connections to Robeson County’s declining agricultural economy, as regional studies make clear. “Robeson County is similar to other rural counties in North Carolina when it comes to losing farm acreage,” note the authors of *Robeson County Working Lands Protection Plan*. “Agriculture is affected by its proximity to urban counties and military installations, both having shown an influence upon development in rural Robeson County.” The report further states that, “the local economy is directly impacted by the agriculture industry which then influences the well being of both rural and urban residents” (*Robeson County Working Lands Protection Plan*). These residents, of course, include the students of UNCP, whether they reside here permanently or only during the academic year. The type of commercial agriculture practiced in Robeson County is, almost without exception, non-organic and unsustainable. Agricultural biotech businesses in North Carolina are robust, with “Five of the world’s six leading plant ag biotech companies – BASF Plant Science, Bayer CropScience, DuPont Pioneer, Monsanto and Syngenta Biotechnology + Crop Protection – having major operations in the state” (“AgBio[assets]”). All of these companies research and develop genetically modified plants, pesticides, and herbicides. People living and working in Robeson County are vulnerable to particular health hazards partly as a result of the agricultural industry here, and Robeson County residents experience
disproportionate rates of certain illnesses arising from dietary and environmental factors.

At the same time, the Lumbee People’s ancestors have lived in this region for thousands of years, where their traditional ecological knowledge has developed within matrices of cypress swamps, longleaf pines, interconnected rivers, and other plant and animal life that are fundamental parts of these systems. Like Indigenous peoples everywhere, the Lumbee have consistently developed ways to sustain their social and cultural communities in the place they call home. And while regional, state, and national economics and politics have shaped Robeson County and the Lumbee people in particular and often detrimental ways through the legacy of colonization, “[n]otions of power, control, and conquest do not drive Indigenous understandings of sustainability,” as scholar Larry Emerson (Diné) explains. “Instead, we value the sacred dimension in sustainable principles of restoration, regeneration, kinship, community, and place” (30). These values are everywhere evident in the Lumbee community.

Yet contemporary American Indian Studies students at UNCP, including many students who are Native American, do not necessarily enter our classroom with a deep grounding in the “Indigenous understandings of sustainability” noted by Emerson, for all the reasons outlined above regarding colonialism’s crushing force to subjugate and assimilate Native peoples over time. Consequently, in teaching theories and practices of sustainability through the discipline of American Indian Studies, it is fundamental to emphasize to students that “sustainability” is neither a new nor a discrete concept in the context of Indigenous experience past and present. The service-learning activity Mary Ann and I created for AIS Intro is one method we have found to concretize the concept of environmental sustainability against a meaningful backdrop of cultural community that personally impacts a majority of our students, especially, but not only, those who are Native American. With its specific focus on organic agriculture, foodways, and cultural identity, our service-learning project resonates with the majority of our regional students, many of whom have grown up with agricultural traditions even if they themselves do not practice any.
Our central course theme in AIS Intro is “Community Sovereignty Requires Healthy Communities.” We have chosen this emphasis in response to the fact that Native American communities continue to experience health disparities disproportionate to non-Native populations, including high rates of cancer, diabetes, obesity, Alzheimer’s disease, and high blood pressure. David S. Jones, MD and PhD, affirms that, “Disparities in health status between American Indians and other groups in the United States have persisted throughout the 500 years since Europeans arrived in the Americas,” and he suggests that diet and socioeconomic factors are part of why this remains true. Jones clarifies that these “disparities regardless of the underlying disease environment is actually a powerful argument against the belief that disparities reflect inherent susceptibilities of American Indian populations.” Mary Ann and I find this an important point to discuss with our students to combat the lingering, erroneous stereotype of Native American genetic “inferiority” as somehow underlying the medical reasons for Native susceptibility to certain health conditions. Rather, as Jones asserts, “the disparities in health status could arise from the disparities in wealth and power that have endured since colonization,” a reality that Jones believes “must guide ongoing research and interventions…” (“The Persistence of American Indian Health Disparities”). While Mary Ann and I agree with this conclusion, we also want to make visible to students through AIS Intro, the ways that Native communities are empowering themselves to improve their health – without waiting for a larger rebalancing of wealth and power in the United States – through recuperating traditional foodways and maintaining ecologically vital homelands.

Southeast Native historian Rayna Green (Cherokee) has written that despite some communities’ current successful revitalization of their traditional diets, “Native food and foodways are, as ever, subject to massive assaults on their maintenance and survival.” In part, Green explains, this is because “Modern tribal efforts at resource revitalization still meet resistance because they interfere – as Indians always have – with large non-Indian economic and cultural interests” (115). So it is unsurprising that students at UNCP find a comfortable nostalgia in learning about the virtues of traditional Indigenous lifeways discussed in AIS curriculum – including healthy and sustainable foodways and such frequently voiced concepts as Natives “using every part” of game animals like deer and bison – even
as they rush to class weighed down by bottles of Mountain Dew, bags of Skittles, and packages Cool Ranch Doritos from campus vending machines or boxes of fast food from the gauntlet of restaurants that border our campus on two sides and provide the only cheap, convenient, abundant, food options. These foods are the majority of what is readily available to them outside the university dining hall; ironically, even the sole eatery in one of our newest campus buildings, Health Sciences, is a combined Papa John’s Pizza and Einstein Bros. Bagels shop. The weight of history has propelled our students and community toward industrialized food consumption, and while they readily appreciate the value of the traditional foodways of their ancestors and other Indigenous peoples discussed in class, they neither readily comprehend that many of these foodways are still available to them, nor do they automatically wish to make radical dietary changes as their understandings about healthy diets increase. In this, they are like the majority of Americans, especially those who live in regions where fast food is aggressively marketed and easily accessible to low-income people.

Thus, it is part of our task in AIS Intro to at least educate students about the fact that traditional Indigenous southeastern foodways have persisted and to integrate as part of our curriculum the concept that dietary changes now will result in the ability to sustain healthier physical bodies and healthier farmlands, both of which will sustain community health, well being, and cultural continuity in the coming generations. Part of this education includes getting our hands dirty at Hawkeye Indian Cultural Center (HICC). HICC is an operation consisting of a two-acre organic farm with hoop houses for hydroponic planting, a southeast Indigenous plants medicine garden, a ninety-seven acre bald cypress pond where visitors may rent kayaks and canoes and fish, a wooded walking trail, a picnic area, an open space where powwows and other Native cultural events periodically take place, and a processing shed where organic produce is prepared for sale. After participating in service-learning at HICC, German international student Luisa Conzelmann, a junior, recognized that, “Projects such as the Hawkeye Indian Cultural Center are dedicated to harvesting and selling local food that has been grown in a sustainable and ecofriendly way and providing the community with an alternative to fast food.” Additionally, as we had discussed in class, Luisa observed at HICC that, “To Native American communities, their land is more
than a source of food to them – it is sacred and part of their everyday life as well as of their spiritual rituals and traditions” (3-4).

The existence of HICC is one powerful example of community relearning in sustainable stewardship, and the alternative provided by HICC to the typical daily food consumption patterns in our region does not go unnoticed by AIS Intro students. HICC is located in Red Springs, North Carolina, in the county directly north of Robeson. Established in 1997 by Native American community leaders in Hoke Country, HICC asserts that its mission “is to strengthen families, unite people through cultural enrichment and enhance the self-sufficiency of underserved and distressed communities, particularly among Native Americans in Hoke and surrounding counties” (“Our Mission”). HICC identifies itself as “an American Indian non-profit, multi-program, family-oriented health and human service center.” In 2012, HICC received a three-year federal grant for its “Sustainable Lifeways Project,” which has worked to expand programs in the specific areas of “Health and Wellness,” “Agriculture,” “Culture,” and “Environment.” The programs developed and enhanced by HICC’s Sustainable Lifeways Project intend to directly benefit “the social and economic health” of regional Native people, in part by generating income through ecotourism and other sustainable community services and resources on HICC lands. These include the recreational activities listed above, as well as offering educational tours about plant and animal life at HICC, selling organic produce grown at the HICC farm, and providing information about healthy eating and cooking (“Our Programs”).

The goals, practices, and programs of HICC – as well as the fact of its very existence as a grassroots, community-based organization – illustrate the resilience of Southeast Native peoples in asserting their food sovereignty and in maintaining and restoring their traditional ecological knowledge (TEK). Traditional southeast Native foods include “Meat, fish, shellfish, vegetables, fruits, and nuts,” which “made for a better, richer, more abundant, and more nutritious diet than available to most of the Anglo-Europeans that journeyed to the South [during the colonial era] and a more dependable, consistent, diverse diet than most Indians elsewhere (except those in the Southwest and Pacific Northwest)” (Green 117). Staff at HICC instructs AIS
Intro students about many of these original foods, as well as about the indigenous medicine plants that have existed in our region. “The recovery of the people is tied to the recovery of food,” asserts food activist and scholar Winona LaDuke (Anishinaabe), “since food itself is medicine – not only for the body but also for the soul and for the spiritual connection to history, ancestors and the land” (34). The philosophy LaDuke outlines here is the foundational philosophy of HICC, making it an ideal community partner for American Indian Studies classes emphasizing health and sustainability as aspects of Indigenous sovereignty.

Supporting Native sovereignty and nation building, particularly in the communities within which university AIS departments and/or Native Studies programs exist, is one of AIS’s disciplinary cornerstones. AIS inherently promotes sustainability education because its historical roots and disciplinary values were forged in the crucible of Native activism arising during the Civil Rights Era, and this activism was fomented by Native university students themselves. Working to maintain the environmental health and integrity of Native homelands – the foundations of Native spirituality, foodways, social connection, and ancestral memory – has always been at the forefront of American Indian activism and education. The service-learning activity in AIS Intro is the experiential component of a curriculum developed to emphasize Indigenous philosophies of sustainability and their relationship to human and environmental health as bedrocks of Native nation building. And while not all AIS courses focus explicitly on concepts of “sustainability” or “environmentalism,” AIS Intro attempts to provide an overview of the fact that for millennia, Native peoples have held sophisticated understandings of their responsible relationships with the natural world based on specific tribal worldviews arising from diverse Indigenous homelands. These understandings underpin traditional Indigenous educational systems, languages, and worldviews. As Native American Studies scholar Gregory Cajete (Tewa) explains, “Traditional systems of Indian education represent ways of learning and doing through a Nature-centered philosophy,” and “[t]hey are among the oldest continuing expressions of ‘environmental’ education in the world” (21).
Our service-learning activity at HICC has consisted of a variety of hands-on tasks: planting vegetables and wildflowers, raking, weeding the medicine garden, building an Iroquoian longhouse, setting up for HICC’s annual powwow and helping with anything else the small staff at HICC may need when AIS students and faculty visit. The range of service-learning activities students engage in at HICC makes clear to them how much is involved in successfully operating even a small-scale organic agricultural venture, especially in a region that does not provide meaningful support for organic farming. To prepare students for what we hope allows them to experience Indigenous ways of knowing even briefly, Mary Ann and I select course texts to help lay a firm foundation. Core concepts we discuss early in the course are TEK and community-based, experiential learning. In many communities, TEK—a systems-based environmental knowledge—has become central to the revitalization of culture. While there are many definitions of TEK, one useful working definition describes it as “the knowledge base acquired by Indigenous and local peoples over thousands of years through direct contact with the environment” (Feinstein 25). Luther Standing Bear (Lakota) and Enrique Salmón (Rararmuri), authors of two core texts in AIS Intro, emphasize TEK as central to their own and other Native peoples’ health and identity.

*My Indian Boyhood*, our first text, is one of two autobiographies written by Oglala Lakota intellectual Luther Standing Bear. Published in 1931 and dedicated “To the Boys and Girls of America,” *My Indian Boyhood* offers a vivid account of Standing Bear’s traditional life as a boy before he went to Carlisle Indian Industrial School, the earliest federal Indian boarding school in the United States. Standing Bear provides detailed descriptions of food and medicine plants; of animals observed, gathered, hunted, eaten, and honored; of Lakota ways of living in a sustainable relationship with the environment, and of the ways in which he witnessed white people’s exploitation of environmental resources that established an adversarial relationship with nature. He describes the Lakota attitude toward the natural world as “one of harmony with Nature” and explains that his people “tried to fit in with Nature and to understand, not to conquer and rule” (13), fundamentals of what many of us know today as “sustainability.” In writing for younger readers, Standing Bear was strategic in using this book for a general and primarily white readership “to teach practical life skills as well as Lakota epistemology” (Delphine Red
Shirt vii). AIS Intro students respond strongly to both the directness of Standing Bear’s language and the basic truth of his assertions.

We follow My Indian Boyhood with Enrique Salmón’s Eating the Landscape: American Indian Stories of Food, Identity, and Resilience (2012). Salmón’s text discusses contemporary Native communities in the Southwest United States and northern Mexico who have also experienced, like residents of Robeson County, serious chronic health problems and cultural loss based on shifts in traditional lifestyles and foodways and the various projects these communities are engaged in to reclaim their health and culturally specific agricultural practices. Salmón’s stories of specific communities in the Southwest show colonization’s devastation of the traditional foodways and sustainable lifeways of Native peoples, a mere century after the thick descriptions Standing Bear gives readers of Lakota TEK practices in his autobiography. At the same time, Salmón provides multiple examples of traditional agricultural and cultural revitalization projects currently being undertaken by Native communities.

One example Salmón includes of a traditional Indigenous dietary staple maintained by the Sierra Tarahumara people of northwest Mexico is “the common bean,” whose varieties are extensive. “The high fiber, complex carbohydrates, low-fat soluble and insoluble fibers, and mucilages found in beans help to control glucose and insulin levels,” Salmón explains. “Together, these nutrients and compounds serve the regular eater of beans with ways in which to avoid obesity and to keep cholesterol low” (26). Salmón also reports that “Farmers at Tesuque [Pueblo] just planted 750 fruit trees and plan to grow 50 varieties of heirloom beans,” while “[a]cross Highway 285 at Pojoaque Pueblo, a group of visionaries are planning to plant the Garden of the Ancients as a way both to revitalize Pueblo agriculture and to feed their people from the landscape” (38). Salmón’s text provides a detailed, hopeful roadmap of both Indigenous philosophies and concrete actions around relationships to culturally relevant foodways and to the lands that provide them, offering a vision to other communities for restoring their own food traditions as part of repatriating cultural heritage. We encourage our students to keep these stories in mind as they participate in agricultural service-learning at HICC.
Both Standing Bear’s and Salmón’s texts reveal important historical background about Native foodways prior to colonization, and Salmón’s stories offer insight into the ways some Native communities are creatively decolonizing by asserting food sovereignty. Their narratives offer experiential portraits of sustainable resource management practices within webs of cultural community and personal and collective identity, and they make explicit the imperative of growing or gathering landrace and heritage foods to maintain human health. The writing, scholarship, community work, and perspectives of Indigenous author-activists like Standing Bear, Salmón, Cajete, LaDuke, and Green allow us to teach AIS Intro students that despite “the arrogance of the conqueror,” as David Orr has described it,8 Native resilience and traditions of sustainability persist into the present day, offering a path for ecological revitalization for all peoples.

These messages resonate with AIS Intro students more deeply after our service-learning activity at HICC, and many of them have their own stories of hunting and growing food to share. In the Service-Learning Reflection Paper we assign after the activity, Mary Ann and I ask students to consider the connections between course readings and service-learning. Their responses frequently illustrate various levels of their own personal and familial connections to ancestral agricultural practices in Robeson County. Salmón’s text in particular allows students to connect to course readings with experiential learning, as one first-year Lumbee student, Taylor Cooper, eloquently discusses in her paper:

I feel that Eating the Landscape was a very suitable selection used to prepare us for our service-learning activity. It addresses the importance of farming and agriculture and how beneficial these practices are to community and cultural values. While I was in the field working, my mind went back to the stories I have heard my grandparents tell about farming and their work as children. As I worked, I felt a connection to those stories. I experienced just a little of what they experienced, and now I can appreciate more of their stories because I have a relatable experience. Many of our elders grew up in farming communities, and reading Eating the Landscape did give me a desire to learn more about my own
TEK practices because I want to be able to give my children and grandchildren the same experiences that I have had through my own parents and grandparents. (1)

Other students spoke specifically of their increased understandings of how service-learning at HICC fulfilled the larger goals of American Indian Studies around community involvement and the development of cultural pride and identity. Lumbee student Alex Dial,9 who helped HICC staff build a replica of a traditional Iroquoian longhouse, reflected in his paper that although “[his] hands were sore, [he] was sweaty and many mosquitoes had bitten [him],” he nevertheless “felt a pride and self-accomplishment that no amount of mosquito bites or sweat could take from [him].” Alex expressed that:

To be able to play such a small role in bringing back the traditions that have been lost and forgotten in my heritage is such a great feeling. Matter of fact this was if anything inspiring to me. I have all intentions of going back to help finish that long house, not just for class, not for [service-learning] hours, but for the simple fact that this is part of my Lumbee roots. This project went above and beyond my expectations as a whole...(4)

Taylor’s and Alex’s comments make clear that the inclusion of service-learning in American Indian Studies curriculum can provide one important opportunity for nurturing an ethics of sustainability that students might carry with them beyond the classroom, into their home, communities, and beyond. Through their written assignments and comments during class discussions, students demonstrated to us their enhanced understandings about the importance of having respectful relationships with their own community foods, gardens, lands – and their relatives who have histories of caring for these – as part of their personal and regional cultural identities.

We have no illusions that one or two days of service-learning at Hawkeye Indian Cultural Center are adequate for addressing the deeply ingrained and multifaceted concerns around healthy eating and cultural revitalization in the Lumbee Indian and larger regional communities that our university serves. After all, it has taken centuries of aggressive and systematic colonialist policies and practices to
attempt to erase traditional Indigenous foodways and Indigenous peoples altogether. Rebuilding understandings about sustainable foodways and reconstructing these systems here will take time; more time than the fifteen weeks of our Introduction to American Indian Studies course. Food and when, where, how, and with whom we eat it are intimate and personal acts, and cultural identity is complex and fluid. This is especially true in this rural, tri-racial part of North Carolina, where to retain an empowered sense of Native heritage and community at all after five centuries of colonization speaks volumes to the adaptability and resilience of Southeast American Indian peoples like the Lumbee.

Many Native people in whose homelands our university exists continue to hold generations of TEK, as they hold the lands and stories that make the transmission and practice of TEK possible. Students who participate in our AIS service-learning courses at HICC become part of their generation’s knowledge-bearers, although we cannot always know whether they will carry this knowledge forward. Colonization’s forceful ideological machinery has included centuries of devaluing Indigenous knowledge systems while simultaneously valuing environments based on how they can best serve humans as “productive” and marketable commodities. To make the corn syrup in that package of Skittles and bottle of Mountain Dew, industrial agriculture has grossly manipulated the grain that has long been held sacred in the teachings of Indigenous Southeast peoples and that continues to be grown in communities working to safeguard their cultural inheritance despite overwhelming challenges. We strive to emphasize the complex web of relationships between Native foodways, community health, cultural identity, and the necessity for all of these to be rooted in the vitality of healthy earth places that our students have the power to restore. Through curriculum and service-learning, our goal in AIS Intro is to guide students toward an enduring understanding that their health and that of their families and communities is a fundamental human right, and that working toward environmental sustainability is an assertion of this right.
NOTES

1 I extend a hearty “miigwech” (thank you) to my friend and colleague Dr. Carter Meland for his thoughtful input on this article.

See Widmer’s “The Civil War’s Environmental Impact” for an excellent overview.

2 The school known today as UNCP was established in 1887 as Croatan Normal School. For a detailed history of UNCP, see Eliades, Locklear, and Oxendine.

3 Noted on the AgBio website at http://agbiosphere.com/assets/.
Established in 2014, AgBio[Sphere] is a North Carolina agriculture and biotechnology project focusing on global economic development of North Carolina’s ag biotechnology business sector. Its emphasis is on job creation, business expansion, and research to “advanc[‐e‐] agriculture through science.” Sustainable practices are not mentioned on AgBio[Sphere]’s website (http://agbiosphere.com/).

4 I use the terms “American Indian,” “Native American,” “Native,” and “Indigenous” interchangeably in this essay as general terms for Native peoples, because all these terms are used in my discipline. Each has a specific history and individuals prefer or dislike certain of these terms, with most people preferring their specific national or tribal name. At UNCP, the “American Indian Literature” classes I teach through my home department of American Indian Studies are cross-listed in English as “Native American Literature,” a good example of the diversity of use of these terms even at a single institution.

6 For details about Hawkeye Indian Cultural Center, visit the Center’s website at http://www.hawkeyeindianculturalcenter.com/index.php.

7 Long houses were traditional extended family homes for peoples of the Haudenosaunee Confederacy, also known as the Six Nations or Iroquois Confederacy. These nations are the Onondaga, Seneca, Mohawk, Oneida, Cayuga, and Tuscarora. Long houses belonged to female relatives and were structured around the clan system. Contemporary Haudenosaunee people continue to use longhouses for ceremonial and other social activities.

8 Orr’s full quote indirectly echoes, seventy-three years after My Indian Boyhood was published, Standing Bear’s commentary about the fundamentally different worldviews toward relationships with the land held by European colonizers and their Euroamerican descendants, and Indigenous peoples of the Americas. Orr opens a discussion of what he calls “an ecologically honest account of our past” in Earth in Mind: On Education, Environment, and the Human Prospect (2004) by writing: “The fact is that Europeans came to the new world armed with ideas, philosophies, religion, and dreams of wealth that did not fit gracefully and permanently into the place they called America. It is not necessary to romanticize Native Americans to know that our [Anglo] ancestors did not, by and large, care to know anything about the native cultures whose ideas did fit the geographies of America. As a result, with the exception of a few pioneering naturalists, our ancestors often failed to comprehend the ecology of the land or the virtues of the people who had learned to live sustainably on it. Instead, they saw only empty real estate and savages. Neither European culture nor the Christian religion prepared them to be humble, cautious, inquiring, or peaceful. The civilization they imposed on the ‘new world’ reflected European ideas and the arrogance of the conqueror, not the native experience with this land” (192).

9 This is a pseudonym for this student.
LaDuke, Winona with Sarah Alexander. *Food As Medicine*. An Honor the Earth and White Earth Land Recovery Project Production (no date).


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