Indigenous Lessons about Sustainability Are Not Just for “All Humanity”

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Legend of Spirit Rock
One night long ago a Menominee Indian dreamed that Manabush, grandson of Ko-Ko-Mas-Say-Sa-Now (the Earth) and part founder of the Mitawin or Medicine Society, invited him to visit the god. With seven of his friends the Indian called on Manabush who granted their request to make them successful hunters. One of the band, however, angered the god by asking for eternal life. Manabush, seizing the warrior by the shoulders, thrust him into the ground and said, “You shall be a stone, and thus you will be everlasting.” The Menominee say that at night kindly spirits come to lay offerings of tobacco at the rock and that if one looks closely he can see their white veils among the trees. The legend is that when the rock finally crumbles away the race will be extinct.

Story of Menominee Relationship to Wild Rice
The Menomini came into possession of wild rice at the very inception of their tribal organization. Mi'nibush . . . created the bear [and] determined to make an Indian of the bear. . . . He called the Indian “Shekatcheke'nau.” . . . Then taking the Indian to the river he showed it to him and gave it into his hands, with all its fish, its great beds of wild rice, and many sugar trees along its banks. He said, “I give these things to you, and you shall always have them—the river, the fish, the wild rice, and the sugar trees.” When Weskineu the Thunderer came from Lake Winnebago to the Menominee River, the Bear clan turned everything, including the river and the wild rice, over to the Thunderer. But the Thunderer always brought rain and storms, so the rice harvest was ruined. Weskineu then returned the rice to Sekat-sokemau. So after that when rice harvest came Shekatcheke'nau called all his people together, and they made a feast, and smoked, and asked the Great Spirit to give them fair weather during the harvest. Since then there has always been a fine, stormless harvest season.
Introduction

The first legend, displayed in a sign on Menominee lands, demonstrates some concepts of the Menominee for planning for the future. While the above depiction of the story is a simplified version of the actual telling, we can glimpse several concepts. People or communities that boast about certain visions of the future may not understand that for which they wish. We have to pay respect to the uncertainty that at any time our lives could change so drastically that our very existence is threatened. The second story, about wild rice, emphasizes the importance of human responsibility within ecosystems. Human motivation to be responsible is energized through cultural activities, from feasts to ceremonies. Humans must always honor the power of ecosystems. The history of the Menominee Nation bears witness to many of these concepts—concepts that serve as lessons about sustainability.

The Menominee refer to themselves as “Mamaceqtawak” (the ancient ones). Since time immemorial, the Menominee have lived in close relation to the plants, animals, and ecosystems of the area now known by most as the Upper Midwestern United States and Great Lakes Region. The Menominee ancestral territories are around ten million acres in the states of Wisconsin and Michigan (the Upper Peninsula part). Menominee governance systems involved highly mobile seasonal rounds in which the societal institutions shifted structure and geographic location systematically throughout the year to take advantage of the best times to access certain plants and animals. We use “seasonal rounds” in the plural to suggest that, among even one group, such as the Menominee, it was likely that different families, clans, and communities had their versions of seasonal rounds that were more tailored to the particular areas they tended to inhabit most each year.

The name of and activities associated with each month in the Menominee calendar generally correspond with an important plant that should be harvested in that month. Menominee seasonal rounds include complex regimes of monitoring, harvesting, and storing foods and medicines from hundreds of plants and animals in the region, including berries in the summer, wild rice in the fall, and maple sugar and sturgeon in the spring. In light of the seasonal rounds, “Menominee”—a name given them by other Indigenous peoples—means “wild rice people,” indicating
the importance of wild rice harvesting for Menominee society as part of the seasonal rounds. It was often said that, wherever the Menominee go, there is wild rice. As one historian states, "Menominee tradition says that when the Bear invited the Thunderer to become his brother, the Bear brought wild rice and the Thunderer brought corn and fire to the new family. This family consisted of distant band units comprising from several dozen to over one hundred members."5

The Menominee wild rice camps usually began to form in early to mid-September. The Moose Clan was charged with the responsibility of protecting the wild rice beds and the harvest, and they ensured an equal distribution of the wild rice for the members.6 Once the rice was ripe, the guards would tell the leaders, who would then inform all Tribal members that it was harvest time.7 Just as with their Anishinaabe neighbors, people with the gender identity approximating women in the culture of U.S. settler society tended to lead the harvesting and processing of wild rice, including threshing, dancing, winnowing and cleaning of the rice.8

During the nineteenth century, the Menominee started to learn lessons about how drastically their ways of life could change. European invasion through the fur trade and eventually U.S. settler colonialism imposed violence and disruption on the Menominee people. In the Treaty of 1854, the United States pressured the Menominee onto a 354-square-mile reservation that is a fraction of the territory they had been accustomed to using. The subsequent Treaty of 1856 carved out land for the Stockbridge-Munsee Band of Mohican Indians, a Tribe that had been forcibly relocated from the East Coast, further diminishing Menominee lands. Overall, Menominee land cessions occurred across ten different treaties from 1817 to 1856 and transformed the once ten-million-acre range to roughly 226,000 acres.

As the Menominee range decreased, the population decreased, too, owing to the turmoil of the fur trade and U.S. settlement, poverty, and disease. An 1834 smallpox outbreak and an 1849 cholera epidemic drastically reduced the Menominee population to 3,900 members (from a much larger population).9 Since time immemorial, the Menominee had developed a governance system centered on seasonal rounds and a certain type of mobility in a large territory. In a fairly short amount of time in the nineteenth century, the Menominee were faced with a much smaller population and a more fixed location of inhabitation.
Despite these changes and hardships, the Menominee adapted creatively under very uncertain conditions where their mobility had changed drastically. They designed a sustainable timber supply enterprise in 1856 upon establishment of the reservation. Although it is not generally discussed in the history of North American environmental stewardship, the birth of sustainable forestry can be traced back to the Menominee when the first federal laws mandating sustainable forest harvesting in the United States were enacted on the Menominee Indian Reservation. Today, Menominee Tribal Enterprises, an institution authorized under the Constitution & Bylaws of the Menominee Indian Tribe of Wisconsin, oversees forest management and sawmill operations through a board of directors of elected Menominee Tribal members on behalf of the Tribe. The Menominee sustained yield forest is approximately 220,000 acres of forestland broken into 9,000 distinct timber stands according to various attributes, such as tree species composition, tree size, soil type, and topographical or geologic features interspersed with streams and lakes. This combination of physical and biological elements provides an abundant and diverse array of plant and animal communities.

Different from monocrop commercial forests, Menominee Tribal Enterprises seeks to pay respect to the agency of the forest itself as a living ecosystem that has cultural and spiritual significance for the Menominee people. Management efforts of the Menominee have resulted in an old-growth forest that supports a wealth of species and natural communities that are unique in northeastern Wisconsin. For example, the white pine forests within the Menominee Reservation are unlike any other stands within the Great Lakes states owing to their having specific ecological niches that are documented. Menominee forestry continues to be world renowned for producing high-quality timber and economic resources for the community while maintaining and enhancing the health of the forest ecosystems.

Many Menominee persons have close spiritual and cultural connections to the forest, using the forest as a place for ceremonies, family recreation, and planting and harvesting. The idea to have these connections certainly arises from the Menominee’s interpretation of their own history, where cultural and spiritual practices have served to motivate human responsibility within ecosystems. The forest is also a point of
pride that Tribal members enjoy showing to respectful and appreciative visitors. Members feel this way because the forest reflects the community’s unique history, creativity, and culture, expressing at once honor for Menominee ancestors and the future continuance for generations of Menominee people to come.

The planning it took to establish the forest contributes to the Menominee’s continuance despite the fact that U.S. settler colonialism sought to eliminate and erase Menominee peoples from their own homelands. “Continuance” here refers to Indigenous survival and flourishing in the face of change, including change stemming from oppression. By the mid-twentieth century, the United States terminated its sovereignty-to-sovereign relationship with the Menominee Nation even though the Menominee ran a successful forestry business and hospital. Post termination, the Menominee closed the hospital and created a business with Menominee persons as shareholders—Menominee Enterprises, Inc.—to generate financial support for the expenses of the newly designated Menominee County. One solution involved a collaboration between MEI and a development corporation that flooded several lakes on the former reservation to increase the shoreline for thousands of recreation properties to be sold to settler Americans, which came to be known as Legend Lake.

The lots were widely advertised by settler Americans as a chance to buy land that was “never before owned” and “The Last Untouched Lake Forest Area in the U.S.” In response to issues such as Legend Lake, some Menominee formed DRUMS (Determination of Rights and Unity for Menominee Stockholders). One of DRUMS’s expressions was that the land loss would make the Legend of Spirit Rock (found at the beginning of this chapter) a reality. Through DRUMS and other political activism, a generation of prominent Menominee leaders emerged, including Ada Deer, who worked to push the United States to recognize Menominee sovereignty again. Restoration of Menominee sovereignty occurred in 1973. The Menominee continue to fight with other Indigenous peoples in the region against environmental injustices involving lands and waters that matter to them, including the now shut-down Crandon mine project and, more recently, the Back 40 mining project.

Given this history, it is not surprising that the Menominee created the Sustainable Development Institute (SDI). The institute’s goal is to reflect
on what lessons can be learned from the Menominee’s stories of continuity and to share with and learn from others. The institute, housed at the College of Menominee Nation (CMN), was founded in 1993 at the same time the college was founded. The Sustainable Development Institute is one of the first Indigenous-run research institutions. In collaboration with CMN, SDI has provided one of the first Indigenous-run higher education programs in sustainability. The goals of SDI are to reflect on and interpret lessons about sustainability from the Menominee’s transition from a seasonal round society to a primarily forestry dependent society and lessons about sustainability that arise from the Menominee experience regarding all areas of community life. The heart of SDI is critical reflection that is situated in place.

The authors of this chapter are Potawatomi (Whyte), Menominee (Caldwell), and Odawa (Schaefer). Caldwell is the current director of the Sustainable Development Institute. Schaefer spent several years working for the institute, and Whyte is a frequent collaborator at the institute. While, as members of Indigenous communities, we are often asked about whether our cultures have lessons about how humans and human societies can live sustainably or resiliently, we rarely have the chance to share the histories and processes of how our communities and nations have continued despite settler colonial oppression. Thinking about the Menominee case, “Indigenous planning” refers to how we as Indigenous peoples endeavor to sustain, revitalize, and continue our social, cultural, and ecological integrity under conditions of settler colonial oppression.

Indigenous Planning and Settler Colonialism

“Indigenous peoples” refer to the nearly 400 million people across the world whose communities, polities, and nations exercised self-determination according to their own social, cultural, and ecological systems—that is, governance systems—prior to periods in which other human groups dominated them through various combinations of imperial invasion, colonial exploitation and occupation, and settlement of their territories. Many Indigenous peoples continue to exercise self-determination today even though the nation-states formed by the descendants of initial settlers, imperialists, and allies of invaders are recognized by the majority of people in the world as the primary
While Indigenous peoples are distinct from one another, they often see themselves in mutual solidarity because they have overlapping political aspirations to continue their own self-determining governance systems in the face of colonial oppression. Planning is an important way in which to exercise collective self-determination. Broadly, we define “planning” as practical activities whereby a collective, such as a society or community or nation, envisions different futures that are more or less desirable for itself and its members, determines what capacities and strategies must be developed today to be prepared for different future scenarios, and revisits and revises its current capacities for preparedness to adjust to current and expected challenges.

Many Indigenous persons in North America, such as ourselves, seek to play a role in Indigenous planning in our everyday lives as community members and in our professional careers, whether as Indigenous professionals and academics or community and cultural leaders or as Indigenous government officials and staff. Collectives can range from neighborhoods to nations and have many vague boundaries and hybrid members. For example, many Indigenous persons in North America are not only citizens of an Indigenous Nation but also citizens of the United States or Canadian nation-states. Or some persons may be Indigenous but, for various reasons, are not enrolled formally in a Tribe. Indigenous communities today feature many religions and walks of life. Indigenous and settler collectives overlap, have borderlands, and hybrid social formations that have different expectations of the terms of negotiation and diplomacy. The Menominee, for example, include both Menominee living on or nearby the Menominee reservation and those living in Green Bay, Chicago, and other areas. Native American and Indigenous studies scholars, such as Mishuana Goeman, have challenged understandings of Indigenous collectives that hold strict reservation/urban divides.

For many Indigenous peoples, collectives are not anthropocentric. That is, they do not exclude animals, plants, and ecosystems as members with the responsibilities of active agents in the world. In many cases, plants, animals, and ecosystems are agents bound up in moral relationships of reciprocal responsibilities with humans and other nonhumans. Humans often identify themselves according to clans that are named for
animals that those humans have a close connection to, such as cranes, wolves, bears, and martens. Or in some cases humans see their own origins as arising from these particular clan species. Animals, plants, and entities, such as water, are often considered as bearers of knowledge in their own right. Humans must exercise respect in their requesting counsel from these knowledge bearers.19

Within Indigenous collectives, planning processes include diverse activities. That is, they can involve many slices of life. They involve ceremonies that express hope and emotional interpretations of the future. They involve researching knowledge archives. “Archives” may refer to the oral tradition or to actual formations in ecosystems, such as formations in the landscape created by plant and animal ancestors that can be used to reconstruct lessons from their time about how to live well.20 Of course, knowledge archives also include old books and reports found in most Tribal offices or libraries. Planning processes involve ceremonial, narrative, and analytical techniques for forecasting future scenarios, such as quantitative risk analysis used by elected Tribal officials or ceremonial protocols for building and expressing guiding visions for the future, or community storytelling.21 They involve educational and ceremonial institutions for cultivating certain future-oriented attitudes and behaviors in younger generations, such as summer science education programs or traditional lodges.22

Even though planning processes are processes of collectives—or collective processes—they are not always democratic or inclusive, and hence they can be quite problematic. As we can imagine, collective planning processes could be dominated by one person or a small committee of elite members or by members privileged by a form of oppression (e.g., patriarchy). Planning can be externally compelled by outsiders, as we have seen in North America when the United States imposed its own educational institutions, patriarchal gender systems, and governmental structures on many Indigenous peoples.

In these ways, as a general concept, “planning” can refer to a number of types of more or less democratic, inclusive, or exploitative processes. For this reason, collective planning processes have enormous moral implications. In addition, what planners in one collective decide to do can affect many other collectives. The recent Indigenous resistance to the Dakota Access Pipeline is an example of this, as the United States, the
pipeline company, and the investors (by implication) can be said to have engaged in a planning process that, among other things, led to the pipeline’s route being moved away from Bismarck, North Dakota, and closer to the Standing Rock Sioux Tribe.

“Indigenous planning” does not refer necessarily to all planning processes in which every Indigenous people engages. Rather, for us here, it is more narrowly understood as planning concerned with the challenges of issues with which many Indigenous peoples identify, settler colonial oppression being a major one. Ted Jojola summarizes these shared issues well by claiming that Indigenous planning is an approach to “community planning” and an “ideological movement.” He writes that the “key to the process is the acknowledgment of an indigenous world-view. . . . A world-view is rooted in distinct community traditions that have evolved over a successive history of shared experiences.”

We take Jojola to mean that Indigenous planning is related to Indigenous governance systems that have roots prior to the incursion and establishment of North American settler societies and states. That is, Indigenous peoples have planning processes to draw on that are not part of the planning processes of settler states. Hirini Matunga refers to this as “classical” Indigenous planning, in which planners rely on “traditional knowledge, worldviews and values” and “traditional approaches, processes, and institutional arrangements to implement decisions.” These classic planning processes can be useful for many reasons, depending on the context. They may use structures of leadership and decision-making processes that are more trustworthy to Tribal members. They may be based on values and knowledges of the ecosystem that have greater local precision and relevance. They may rely on symbolism, storytelling, and cultural practices that are intrinsically valuable to Tribal members as part of their identities and family, clan, and band lives. They may require processes of research and recovery to restore traditions (in cases where traditions are no longer practiced or remembered widely) that serve to bring community participants together, thereby building better relationships through engagement in the processes of research and recovery.

We see Jojola as referencing “shared experiences” to also indicate the histories of Indigenous peoples having to adapt to settler colonialism. Indigenous peoples have learned many things from these experiences about what it means to achieve continuance under severe conditions of
oppression and powerlessness. These points are why we discuss Indigenous planning as how we as Indigenous peoples endeavor to sustain, revitalize, and continue our social, cultural, and ecological integrity under conditions of settler colonial oppression.

### Indigenous Futurity

The United States and Canada continue to practice multiple forms of colonialism, including global imperialism, colonial occupation (e.g., U.S. territories), and neocolonialism. They also perpetrate settler colonialism, which is one focus of our discussion here. Settler colonialism is a form of oppression in which settlers permanently and ecologically inscribe homelands of their own onto Indigenous homelands. Settlers do not, as in imperial or metropolitan forms of colonialism, seek fundamentally to extract wealth and harness Indigenous labor for the sake benefiting peoples in central homelands located somewhere else. Some argue that settler colonialism is one condition for strengthening U.S. imperialism abroad because it establishes the needed land base for U.S. food security, manufacturing, military development, and metropolitanism (i.e., being a global intellectual and cultural hub).

For the Menominee, U.S. settlement has contained them on a small reservation to open up land for settlers to engage in the terraforming and hydraulic engineering needed to build and validate settler cultures and economies. Settlers quickly laid claim to lands in what became known as the United States and then, specifically here, the lands in what is now known as the state of Wisconsin. They developed social identities and attachments to the land in relation to settler agricultural, industrial, cultural, and recreational activities in the region. Settlers ignored and erased Menominee and other peoples’ social identities and attachments to the land, removing the footprints on the land that mark Indigenous histories and Indigenous cultural and economic activities (e.g., the seasonal rounds). For a territory to emerge as a meaningful homeland for settlers, the origin, religious, and cultural narratives, ways of life, and political and economic systems (e.g., property) must be engraved and embedded into the waters, soils, air, and other environmental dimensions of the territory. That is, settler ecologies have to be inscribed so settlers can exercise their own governance systems. So it was no accident
that U.S. settlers created the idea of Legend Lake as “unowned” and “untouched”—such an ideal spot for (settler) recreation!

“Ecologies” are systematic arrangements of humans, nonhuman beings (animals, plants, etc.) and entities (spiritual, inanimate, etc.), and landscapes (climate regions, boreal zones, etc.) that are conceptualized and operate purposefully to facilitate a society’s capacity to survive and flourish in a particular landscape and watershed. Waves of settlement seek to incise their own ecologies required for their societies to survive and flourish in the landscapes they seek to occupy permanently. In settlement, the territories were already inscribed with Indigenous ecologies that result from Indigenous practices of survival and flourishing.

The Indigenous ecologies physically manifest Indigenous governance systems through origin, religious, and cultural narratives, ways of life, political structures, and economies. The Menominee seasonal rounds described earlier serve as an example of Menominee ecology. The physical manifestation of the Menominee ecology featured extensive ricing lakes whose hydrology and biodiversity reflected Menominee stewardship. The rice ecology embodies environmentally the Menominee origin and other cultural stories that feature rice so prominently. The rice ecology, as it is inscribed in the land, bears witness to the Menominee people’s exercise of responsibilities to rice. The physical manifestations affirm the importance of, and motivation for, protecting ricing traditions for the sake of future generations.

For settlers, the presence of Indigenous ecologies—from the human activities themselves to their physical manifestations as particular ecosystems and ecological flows—delegitimizes settlers’ claims to have honorable and credible religious “missions,” universal property rights, and exclusive political and cultural sovereignty. To remove all markers or physical manifestations that challenge their moral legitimacy, power, and self-determination, settlers systematically seek to erase the ecologies required for Indigenous governance systems, such as Indigenous seasonal rounds. Although the “-ology” in “ecology” may sound like a peculiar usage, we use it to denote human agency within ecosystems, whether that agency is the Indigenous knowledge of seasonal rounds that shaped the lands and waters of the Menominee ancestral territories or the settler desires to shape the same lands and waters to reflect and support their aspirations.
Shawano Lake was formerly a major Menominee wild rice bed and area for fishing, hunting, and berry cultivation through systematic burning. Wisconsin settlers terraformed and hydrologically engineered the lake area into a recreational lake. The lake area no longer supports Menominee ricing or harvest and is now dominated by settler homes and recreational businesses. The lake is, according to settler law, “off-reservation”; hence settlers believe they are not on Menominee lands or waters. In a short time, the ecology of the lake has been terraformed into a settler ecology, with few physical manifestations of Menominee ecologies remaining. We seek to pause during this part of the essay to go into further detail about why settler processes, such as the terraforming and hydraulic engineering of Shawano Lake, are harmful to Indigenous peoples.

One society’s erasure of the ecologies of other societies is harmful because, among other reasons, doing so undermines qualities of relationships of the colonized societies that have developed over many years. These qualities of relationships bolster continuance, as in the case of Menominee rice ecologies and the clan and gendered responsibilities to rice and rice’s support of Menominee self-determination. Qualities of relationships are properties of relationships that make it possible for a relationship to have wide societal impact. Qualities of relationships motivate the discharge of responsibilities among the parties or relatives within relationships. Quality is different from type of a relationship. A type of relationship is simply the description of the relationship itself, for example, the human nutritional or religious connection to wild rice (e.g., “humans eat wild rice; humans use wild rice in ceremonies”).

The qualities of a relationship are the actual properties of that relationship that motivate humans to care for rice and to gain and protect knowledge of rice. The motivation makes it possible for humans to have an emotional disposition to take responsibility for rice. As we discuss shortly, the more humans take responsibility, the more the other parties or relatives reciprocate (e.g., flourishing rice harvests) if the appropriate causal relationships are also in place (such as causal relationships known via Indigenous knowledge systems about the impact of certain human practices on the growth of rice and the impact of certain ceremonies and educational practices on motivating and training humans to engage in stewardship practices skillfully). This reciprocity further secures and
strengthens human motivation as the benefits of taking responsibility are physically manifest. We review just two qualities of relationships here.

*Trust* refers to a quality of relationships among people in the community in which each party or relative, human and nonhuman, takes to heart the best interests of the other party or relative. People trust one another when they feel confident and at ease that the trustor takes the trustees’ best interest to heart. Trust facilitates collective well-being and collective planning when people can be trusted to discharge particular responsibilities, leaving others to take up the many other responsibilities in the society. Trust is emotional and takes time to develop among different parties or relatives in a relationship.

Clan systems are based on trust. Specific clans are often charged with different responsibilities. Members of those clans, through exercising protocols and ceremonies and furnishing results, reaffirmed their identifies as trustors having those responsibilities. For example, the Menominee’s Moose Clan has the responsibility of protecting the wild rice until it is ripe, overseeing the harvest, and ensuring an equitable and communal distribution. Clans provide leadership and expertise in multiple forms, from the political and diplomatic responsibilities of the Bear Clan to the knowledge of the Crane Clan in building products from naturally available materials. Clan members have particular knowledges and skills that are trusted by everyone else to contribute to seasonal rounds on the whole.

*Gender* is also closely related to trust. As discussed earlier, women of Menominee and related groups had special leadership and expert positions in relation to activities such as those involving wild rice. Gender difference, then, was not associated with oppression but with responsibilities entrusted within a society. This is why the connection between patriarchy and settler colonialism creates distrust between men, women, and two-spirit persons in many Indigenous peoples, as trust is replaced with oppressive gender relations. This oppressive connection has played a role in what are now many morally problematic, male-dominated Tribal governments and agencies today and the heightened risks of sexual violence and murder that Indigenous women and two-spirit persons face. And even the most clearly recorded articulations of some Indigenous traditions, including perhaps the stories at the beginning of this chapter, are now told in a masculinist way.
Redundancy is a quality that refers to states of affairs that have multiple options for adaptation when changes occur and that are able to guarantee sufficient opportunities for education and mentorship for community members. For example, in the case of wild rice harvesting, a society with high redundancy is one that can harvest from multiple ricing lakes in the event that some lakes stop producing rice for some period of time, whether naturally or through destruction or occupation by settlers. As described earlier, the Menominee seasonal rounds ranged over a large region that included many rice lakes and other sources of food and medicine. Redundancy is a quality of relationship because it refers to more than just the fact of there being a commodity or religious relationship to rice in some society. Redundancy means that there are many options for maintaining the type of relationship. It is sustained by human motivation toward performing stewardship, mentorship, and ceremonial, educational, monitoring, training, harvesting, and disposal practices with relatives of the nonhuman world. Analogous to language fluency, people are more motivated to learn and will learn better if all generations in a society speak (and prefer to speak) a particular language. Having many fluent speakers can, by analogy, be compared to having many rice lakes. In literatures on sustainability, concepts such as buffering may also be compared to redundancy.

It is very important to note the ecological dimensions of these qualities of relationships. Redundancy and trust figure within the dynamics of ecosystems. Redundancy requires deep connections to lands and waters that allow people to monitor for change and maintain, as best as possible, the amount and diversity of habitats. Having a lot of habitats ensures that there are also sufficient opportunities to mentor youth and to foster the independence of particular families and other groupings through their being able to have easier access within their seasonal rounds to harvesting opportunities. For trust, in order to maintain a wild rice habitat as part of a rice ecology, precipitation, water levels, and integrity of the shoreline and those plants and animals that interact with rice must be monitored by people, such as clan members. Trust is often rooted in knowledge that certain members or groups of a society have in-depth knowledge of certain aspects of the ecosystem and that there are processes in place in a society to adequately vet and train knowledge bearers (including nonhuman knowledge bearers).
Importantly, qualities of relationships support the ongoing futurity or future continuance of Indigenous societies. “Futurity” refers to the idea that members of a society ought to be able to experience that their own efforts and contributions to their society play a part in making it so that a vibrant future is possible for the coming generations and in the perceptual experiences of young people living today. Futurity has been shown to be significant for Indigenous peoples, for one way of understanding settler colonialism is as a form of oppression that destroys Indigenous futurity. Settler colonialism, in relation to planning, attacks our capacities to assert or stage our own futurities. To believe that we and our societies have futures, we need to witness a sufficient degree of our relationships and histories in the physical manifestations of ecologies. The physical manifestations furnish credence in our efforts’ and contributions’ potential to move forward or move cyclically into the next generation.

In other words, we need to witness that there is sufficient territory, with particular habitats, to sustain seasonal round activities. We need to witness landscapes that are referenced in stories. We need to be able to experience that what younger and older generations do in relation to one another affects the capacity of each generation to live well into the future. We need to be immersed in the presence of the markers of our ancestors in the lands and waters. Redundancy supports futurity because it allows us to witness the capacity of an ecology to support an Indigenous people throughout time. Trust is a basis for futurity because we see that people in positions of political or epistemic authority take our best interest to heart and that it is worthwhile in our lives to put in the efforts required to cultivate ourselves as trusted members of our societies. In this way, the replacement of Indigenous ecologies with settler ecologies can inflict rapid changes. These changes, such as the destruction of rice ecology, undermine the plant and related species whose physical manifestations in ecosystems foster qualities of relationships (trust, redundancy, and others) that are important for our continuance.

Connecting Planning to Indigenous Studies and Institution Building

In planning, Indigenous peoples imagine themselves strategically in ways that are not reliant on settler and other oppressive desires, discourses,
and needs. Planning involves imagining futures in which qualities of relationships, such as trust and redundancy (but others too), flourish. We see these insights and principles reflected in the Menominee’s planning through the Tribe’s forestry and other programs. The Menominee forest establishes and protects multiple relationships of redundancy and trust across humans and nonhumans of the Menominee collective. The forest relies on Menominee history, culture, and knowledge in resistance to settler colonial oppression. Indigenous scholars and Indigenous persons working for Indigenous institutions offer lessons through their studies and work that are certainly in dialogue with what we have discussed already. We share some of these lessons here.

Mishuana Goeman and Jennifer Denetdate write that “the structures of our lives as Native women and men are shaped by racism, sexism, and discrimination. We strive to recover our former selves and push toward creating better future selves by reclaiming Native values, which have seen us through multiple traumas, including land dispossession and the loss of our freedoms.” Leanne Simpson claims that “resurgence happens within Indigenous bodies and through the connections we make to each other and our land. That’s how we strengthen ourselves within Nishnaabeg intelligence.” Gerald Vizenor’s concept of survivance refers to “an active sense of presence, the continuance of native stories, not a mere reaction, or a survivable name. Native survivance stories are renunciations of dominance, tragedy, and victimry.” One commentator interprets survivance as “renewal and continuity into the future rather than memorializing the past.” Audra Simpson’s politics of refusal arises from Kahnawà:ke actions, words and stances. Describing them, she writes that they “used every opportunity to remind non-Native people that this is not their land, that there are other political orders and possibilities.” She sees that “it is just this sort of cognizance of differing social and historical facts that make for the posture of refusal.”

Dian Million draws on the concept of naw’qinwixw from Jeanette Armstrong. On Million’s interpretation, it is a concept of inclusivity in which “Indigenous people of many genders, ages, and abilities perform radical acts of determination around, above, and outside of nation-states’ heteronormative, homophobic, misogynist, regulatory Indian policies. In [Million’s] reading, “naw’qinwixw informs first practices, effectively performed ethical acts of interrelationship that involve all in
any sustained effort to live in a place, with one another, generatively with life, rather than as that which seeks control.” 45 Million’s philosophy of “healing” looks to Indigenous women as “[offering] a specific vision of polity that encompasses diverse alliances, one that is informed by practices of naw’qinwixw in political struggles for land, food, and environmental justice.” 46

Māori scholar Te Kipa Kepa Brian Morgan in Aoteoroa/New Zealand has created a model for environmental assessment based on their concept of Mauri. The concept is “central to Tangata Whenua belief regarding the environment. Mauri is the binding force between the physical and the spiritual aspects. When the mauri is totally extinguished, this is associated with death. . . . Mauri is considered to be the essence or life force that provides life to all living things. Water also has mauri.” 47 As an ecology, “Mauri also establishes the inter-relatedness of all living things. The linkages between all living things within the ecosystem are based on the whakapapa or genealogies of creation. This establishes the basis for the holistic view of the environment and our ecosystem held by the Tangata Whenua.” 48 This concept has been used to design a metric for evaluating the environmental actions of the New Zealand settler state in terms of whether particular actions increase or decrease Mauri, instead of relying on settler notions of economic costs and health impacts. 49

In the St. Lawrence River/Great Lakes Region, the Akwesasne Mohawk Nation’s Environmental Department, whose key lead contributors include Angela Benedict, Mary Arquette, and numerous community members, 50 created a climate change plan based on their own knowledge of what we are calling “ecologies” instead of relying heavily on the scientific concepts of a U.S. federal agency or on non-Mohawk adaptation planning organization. For example, the department’s plan is organized according to the ecology of the Mohawk Thanksgiving Address, which includes, as categories through which to understand climate change, “The People, Mother Earth, The Waters, The Fish, Small Plants and Grasses, The Berries, Three Sisters, Medicine Herbs, Animals, Trees, The Birds, The Four Winds, The Thunderers, Grand Mother Moon, The Sun, The Stars, the Four Beings and the Creator.” Each of these categories involves intricately woven human and nonhuman relationships and responsibilities. In terms of community engagement, and quoting from the plan itself, it calls for the Tribe to hold “a number of Adaptation
Planning classes to teach community members how to prepare for climate change now, and uphold the traditional culture of the Tribe under the changed climatic conditions of the future.”

The Diné Policy Institute of the Navajo Nation also uses its own ecology to create a food sovereignty plan, using the principle of Hozho, or holistic well-being (a Navajo word that is hard to translate into English). The plan, whose lead author is Dana Eldridge, seeks to “foster greater self-sufficiency, health, and sustainability for Diné people . . . by reconnecting them with traditional foods and revitalizing knowledge and practices around foods.” According the plan, “restoring Hozho will have positive impacts on the health of the people, relationships of the people as well as our interconnectedness with the land, while also leading to greater self-sufficiency for the Diné people and the Navajo Nation.” The plan recommends “rebuilding of a self-sufficient food system for the Diné people.” The plan carefully documents how settler colonialism has been enacted to create a disconnect between Indigenous people and their land, food, and health, hence Hozho refers, among many things, to processes that can refuse and resurge against oppression.

The Sustainable Development Institute of the College of Menominee Nation

The Menominee Nation’s planning process for sustainability expresses many of the themes and ideas discussed earlier, especially through the work represented in its Sustainable Development Institute, founded by Tribal leadership in 1993 through the Tribe’s college. The College of Menominee Nation is one of thirty-seven Tribal Colleges and Universities (TCUs) in the United States. Tribes founded TCUs starting in the late 1960s to provide culturally and socially supportive environments for American Indian students, to support local Tribal communities, and to produce indigenous research and scholarship. The College of Menominee Nation was chartered by the Menominee Tribal Legislature in 1993 and reaffirmed by a vote from the general membership of the Menominee Tribe in 1996.

The mission of the College of Menominee Nation is “to provide opportunities in higher education to its students. As an institution of
higher learning chartered by the Menominee People, the College infuses this education with American Indian culture, preparing students for leadership, careers and advanced studies in a multicultural world.\textsuperscript{56}

From CMN’s founding, there has been a strong connection and commitment to sustainability. Interim President Dr. Diana Morris describes the deep connection between sustainability, education, and what we have described already as Indigenous planning. In an open letter, she affirms that, “for our College and the Menominee People who chartered CMN, sustainable development has roots in the moral code, governance structure, and sustainable forestry practices that evolved within the tribe over many centuries.”\textsuperscript{57}

Founding president Dr. Verna Fowler has discussed how the curriculum was built around “respect for the land, water, and air; partnership with other creatures of earth; and a way of living and working that achieves a balance between use and replenishment of all resources.”\textsuperscript{58}

A commitment to sustainability is part of Menominee life. This commitment was specifically expressed by Menominee Nation leadership through the initiation of the Sustainable Development Institute (SDI). The institute’s 1994 mission statement is “to continuously expand knowledge, understanding and resources related to Menominee Nation Sustainable Development for the purpose of ensuring ongoing protection, control and productivity of the Menominee culture, environment, economy, technology, and community.”\textsuperscript{59}

Initially, a board of directors made up of Menominee leaders and experts worked to create a theoretical model of sustainable development “to understand the success of Menominee forest management, to share the sustainability successes with others, and to begin to address sustainability issues in other aspects of Tribal life.”\textsuperscript{60} The initial framework articulated sustainability as interrelated aspects of community, technology, culture, governance, interconnectedness, economy, and Tribal control. A new Sustainable Development Advisory Council (launched in 1995) brought together Menominee leaders and Tribal experts with external partners and experts to further the theoretical model as a guide to research, education, and outreach. The College of Menominee Nation, the Sustainable Development Institute, and the Advisory Council arranged diverse meetings and conversations among their own members and staff, Menominee Tribal leaders, academics, and community members.
The goal of these discussions and conversations was to understand the Menominee sustainable development experience as a way of building the theoretical model.61

The model, introduced in the mid-1990s, “defines sustainability as comprising six discrete but highly interrelated dimensions: (1) land and sovereignty, (2) natural environment (which includes human beings), (3) institutions, (4) technology, (5) economics, and (6) human perception, activity, and behavior.” The model can be used for a range of processes, including planning, research and evaluation.62

Land and sovereignty have specific legal and cultural meanings for the Menominee and other Indigenous peoples that preexist the creation of United States. They continue to use these conceptions of land and sovereignty as part of their contemporary exercise of self-determination.63 This dimension expresses the idea of redundancy, discussed earlier, which is important to the Menominee because they have fought to retain their land and sovereignty for centuries.64 The Menominee view this long struggle to have a terrestrial basis for (what we call) redundancy as one of the reasons they have been able to “maintain a reservation within their ancestral territory, maintain the ecological diversity and spiritual and cultural value of their forestland through time, develop a world-renowned forest management system, and establish the College of Menominee Nation.”65

The natural environment dimension includes “people, human communities, plants, animals, rocks, water, and air. The natural environment dimension incorporates Menominee understanding that everything is connected and related.”66 It also incorporates the importance of building relationships based on trust, among other qualities of relationships, across these different living and nonliving beings and entities. The natural environment dimension is compatible with Western/U.S. science-based research methodologies, assuming that intercultural engagement occurs on fair terms. The institutional dimensions refers to “structures that develop and enforce rules of behavior and social interactions (which can include interactions among humans, plants, animals, and the environment). For the Menominee, institutions include the Menominee clan system, the contemporary Tribal government, and the College of Menominee Nation,” where trust plays an important role in ensuring good relations among members of the community.67
The technology dimension is diverse, including “Menominee technology for building birch-bark canoes, processing wild rice, producing high-quality saw timber in a sawmill, and using geographic information systems to implement sustainable forestry management activities.” Dockry et al. emphasize the idea that technology concerns the ways in which people get things done. The economic dimension includes a range of scales, households, Tribes, regions, nations and the entire globe. For the Menominee, a key economic issue is the “coexistence of individuals engaged in subsistence harvesting and commercial timber harvesting for sale on the international market.” Key to both the technology and economic dimensions are the roles these systems play in collectives by providing trustworthy services that prioritize community well-being and establish and protect redundancy.

Human perception, activity, and behavior is a dimension that concerns diverse individual and community scales relating to sustainability. The dimension includes, on one end of the spectrum, “individual perceptions, activities, and behaviors” and, on the other end, “community understandings, values, and collective pursuits.” Dockry et al. discuss how “this dimension incorporates everything from Menominee cultural beliefs and practices to the creation of forestry management plans that limit timber harvesting to sustainable levels.” This dimension can be used to cover the importance for peoples’ motivation and commitment to be able to live in ecologies that bear witness to Indigenous histories, cultures, economies, and futurities. The dimension can pertain to how growing trustworthy relationships, for example, is a deeply emotional process requiring time to establish. It can also take into consideration a difference of perspectives between different tribal member groups within the community, while considering the differing perceptions between the Tribe as a collective and external communities.

Dockry et al. describe succinctly how the model operates:

According to the SDI model, sustainable development is defined as the process of maintaining balance and reconciling the tensions within and among the six dimensions of sustainability. This does not mean to imply that there is a functional equilibrium or a “natural” balance; change is an explicit feature of the model. Each SDI model dimension is dynamic,
both in respect to its internal organization and in relationship to each of the other five dimensions of the model. Change within one dimension will affect other dimensions in an ever-unfolding diffusion of responses to change. Change can be externally driven or inherent to the dynamic nature of any of the six dimensions. The SDI model recognizes that there will always be tensions within and among model dimensions. Tensions can be illustrated by placing SDI model dimensions adjacent to one another. Furthermore, as tensions among model dimensions are relieved, new tensions will arise. Because new tensions will always arise, sustainable development is defined as a continual, and sometimes iterative, process. The model is intergenerational in its framework.

The Sustainable Development Institute is a case of Indigenous planning through its processes of reflection on how the Menominee and other Indigenous peoples have adapted to settler colonial oppression. The reflection concerns both lessons learned and how to apply them in planning processes to other areas of community life. It is all part of the sustainable forestry story that continues to have physical and ecological credence today in the presence of the forest itself as a living agent. The model is a planning tool that can be used to examine the tensions of human-environmental relationships within (what we call) ecologies. The model, if changed, should be changed in the manner in which it was created. The model is dynamic; it can change, and it should change.

The Sustainable Development Institute is significant as an Indigenous research institution within the Tribal college framework. Tribal colleges typically focus on Tribal needs in a culturally relevant setting. The Sustainable Development Institute seeks to empower students to delve deep into their own Tribal histories, experiences, and insights and explore the physical/ecological manifestations of Indigenous governance that express futurity, such as the Menominee sustainable forest. This is why SDI conceives of itself as based on the idea of reflection on insights and lessons about sustainability in place. The institute is a place for students to delve deeper into programs guided by Indigenous peoples. Additionally, SDI is able to create opportunities for TCU students and other Tribal students to explore their own stories across the boundaries of Tribal college settings and mainstream academic institutions.
The Sustainable Development Institute on Climate Change

Consistent with SDI’s core mission to share insights within the Menominee community and beyond, it has embarked on a number of projects, with climate change emerging as a larger thematic area for exploring Indigenous ecologies and human-environmental relations more broadly. Climate change poses a threat to the traditional livelihoods and the sustainably managed forestlands of the Menominee Nation. However, climate change also presents an opportunity—a chance to apply Indigenous knowledge to adapt and sustain Native communities and, for the Menominee Nation especially, to share its understandings with others seeking to address this global issue. The experience and ability of SDI to work within and across the worldviews of both Indigenous knowledge and “Western science” allows for opportunities to address a complex issue like climate change from multiple perspectives. The Sustainable Development Institute is a case of an institution that uses an overall process that seeks to understand, through multiple projects, how Menominee and other Indigenous peoples can sustain the continuance of our own societies despite the oppressive conditions we face.

The SDI model itself, a summary of Menominee indigenous planning expertise, provides a framework, or representation of an ecology, for addressing climate change outside of the mainstream thinking in a more integrative and holistic manner, taking into consideration—rather than separation from—spiritual aspects related to resilience and adaptation and the inclusion of elder and youth voices with the scientific voices. This focus on different perspectives and voices are just parts of the overall picture of Menominee’s lessons on the meaning of place-based sustainability. The resulting climate change projects include those operating at regional, national, and global climate scales. In all of these projects, SDI has served as a boundary organization that facilitates processes of Indigenous planning for climate change in the context of interactions with settler institutions, especially U.S. federal agencies.

For the last few years, the SDI has held a “Shifting Seasons Summit” to respond to the growing local, national, and global need to monitor and respond to climate change. The most recent summit was funded largely by the U.S. Department of Interior’s Bureau of Indian Affairs and Northeast Climate Science Center. The conferences were organized
dialogically, with Indigenous persons, nations, and organizations as the lead planners and major speakers, instructors, and attendees. Participants had the opportunity to spend time directly on the Menominee land—for example, visiting the Menominee Forest, culturally significant areas, and specific communities. Participants also sat in circles or in other communicative arrangements, at different points in the conference, to discuss the importance of talking about topics not typically discussed in relation to climate change, which ranged from collaboration across cultural difference to colonialism to gender and patriarchy.

Measuring the Pulse of the Forest was a three-year project funded through a U.S. Department of Agriculture National Institute of Food and Agriculture Tribal College Research Grant Program. Project partners included the Center for First Americans Forestlands (part of SDI), the Smithsonian Institution, and Michigan State University’s Native American Institute. The integrated resource approach of this project not only identified predicted climate change impacts on the Menominee forest but also how that would influence the Menominee peoples’ relationships with the forest and affected species. The study included the installation of three one-hectare climate change monitoring plots and the development and use of semi-structured interviews to assess community members’ relationships and Indigenous knowledge with the forest in the past, present, and future. This project was a direct example of Indigenous planning through the use of a framework based on Indigenous knowledge and the utilization of Western science to help illustrate these relationships from another perspective. In this instance, the work is controlled by a Tribal entity (College of Menominee Nation) with an Indigenous community as the main beneficiary.

Through a project funded by the U.S. Department of Interior’s Northeast Climate Science Center, SDI has worked to collaborate with Indigenous nations throughout the Northeast region to find planning solutions to climate change impacts that can be pursued by individual Tribes or through cooperative solutions. Initial development for this project grew from an earlier project between the Center for First Americans Forestlands (at CMN), the U.S. Forest Service, and the Great Lakes Integrated Sciences + Assessments Center (U.S. National Oceanic and Atmospheric Administration) to develop Indigenous methods of strategic foresight for adaptation planning. The project focuses on how Indigenous
peoples can develop, specific to their locations, culturally guided and community-based climate change programs, often inspired by seasonal rounds and other governance systems coming from the Indigenous communities. Some of the key developments have been the creation and refinement of nation- or community-specific public engagement strategies, a methodology of Indigenous scenario planning and culturally rooted educational programs on climate change for youth.

The Sustainable Development Institute seeks to expand its work to better understand how to evaluate Indigenous partnerships with scientists and to offer more educational opportunities for Indigenous students that will prepare them for future work on climate change planning. The Sustainable Development Institute and Michigan State University recently received funding from the National Science Foundation to evaluate ethical training for scientists in climate science organizations, and the SDI worked with Carla Dhillon to evaluate the 2015 meeting of “Rising Voices: Collaborative Science for Climate Solutions” at the National Center for Atmospheric Research. In both projects, SDI is developing Indigenous frameworks for evaluation that can measure or gauge relationship issues such as trustworthiness—expressed through Indigenous concepts such as family relatedness—that matter to many Indigenous persons in their interactions with scientists.

In 2015, SDI hosted its first Indigenous Planning Summer Institute for SDI summer interns at the College of Menominee Nation. In 2016 and 2017, the Indigenous Planning Summer Institute invited Indigenous students along with SDI summer interns and instructors from the Indigenous Design and Planning Institute at the University of New Mexico and expanded its curriculum to include three Indigenous planning concepts from the institute’s work that engender credence in Indigenous futurities: Seven-generation planning and Indigenous knowledges and cultures are already powerful resources for planning, and the history of oppression in Indigenous communities needs to be understood and learned from. The institutes developed with support through the DOI Northeast Climate Science Center have also provided a means for securing additional funding and support over the years.

These concepts were shown in practice through placed-based and activity-based curricula conducted by and occurring at the Menominee Nation, Oneida Nation, and the Stockbridge-Munsee Community.
The curriculum was developed in collaboration with Ted Jojola and Michaela Shirley of the Indigenous Design and Planning Institute at the University of New Mexico. In this way, the Indigenous students had the opportunity to learn from other Indigenous peoples about planning. The planning institute seeks to provide Indigenous-based, experiential training for the next generation of Indigenous scientists, leaders, activists, and professionals. The institute seeks to motivate students’ creativity and provide what is unfortunately a rare but powerful opportunity for Indigenous persons to engage in intercultural exchange across different Indigenous peoples.

Conclusion

The Sustainable Development Institute focuses on what can best be described as reflective planning processes of Indigenous sustainability. The processes are rooted in what we can understand and recover from our experiences prior to and during settler colonialism and how our own interpretations can be used to support the continuance of Indigenous peoples. A huge part of what SDI does is not so much centered on Indigenous lessons on sustainability for all humanity. Rather, SDI’s work considers what processes support Indigenous peoples’ sustainability in the face of the challenges of settler colonialism, starting from the Menominee experience and then branching out to others when mutual benefits are possible. This reflection on sustainability arises from concern about how Indigenous peoples can put planning processes into practice. It is an active effort that expresses our gratitude to those before us and shows our responsibility to those who will come after us. This line of sustainability is maintained by sharing cultural values that have been passed down from generation to generation to show how we can act on the potential futurities of our peoples.

This is different from how some non-Indigenous communities seek to understand our lessons of sustainability for the purpose of saving themselves or humankind. Instead, Indigenous planning, as a way of reflecting on Indigenous sustainability, is about figuring out the planning processes arising from the contexts that we actually live in today, in which our societies are greatly limited and threatened by settler colonialism and other forms of oppression. Reflecting on sustainability in
Indigenous Lessons about Sustainability

this way—whether regarding climate change, biodiversity conservation, or food sovereignty—keeps us aware of how oppression endures as one of the largest threats to Indigenous peoples and many other groups. Whether settler and other privileged populations ultimately can achieve sustainability in the near- or long-term planning horizons is not so much our concern. Regardless of what happens with them, the odds are that Indigenous peoples will continue to face different forms of colonial oppression and must innovate strategies for protecting our continuance no matter what non-Indigenous populations end up doing.

Notes
1 Wisconsin State historical marker on the Menominee Nation reservation.
3 In both stories, spellings vary owing to source.
5 Beck, Siege and Survival, 7.
7 Beck, Siege and Survival, 16.
13 Pecore, “Menominee Sustained-Yield Management.”
14 Advertisement in the Appleton (WI) Post Crescent, May 16, 1969; credit to Michael Dockry for this research.
15 DRUMS Newsletter, July 1, 1972; credit to Michael Dockry for this research.
22 Kate McCoy, Eve Tuck, and Marcia McKenzie, eds., Land Education: Rethinking Pedagogies of Place from Indigenous, Postcolonial, and Decolonizing Perspectives (London: Routledge, 2016); and Andrejs Kulnieks, Dan Roronhiakewen Longboat, and Kelly Young, eds., Contemporary Studies in Environmental and Indigenous Pedagogies: A Curricula of Stories and Place (Rotterdam: Sense Publishers, 2013).
25 Ibid.

29 Goldstein, Formations of United States Colonialism.


31 Ibid.

32 Ibid.

33 We learned of this history through teachings at the Indigenous Planning Summer Institute in 2017, hosted by the Sustainable Development Institute of the College of Menominee Nation in Shawano, WI. Although see also the Menominee testimonies about rice in Jenks, The Wild Rice Gatherers.


39 Ibid.


46 Ibid., 32.
48 Ibid.
50 Mary Arquette, “Tribal Adaptation Case Study,” presentation at the Shifting Seasons Summit: Building Capacity for Tribal Climate Change Adaptation, 2014, College of Menominee Nation, Keshena, WI.
54 See the American Indian Higher Education Consortium at www.aihec.org for information about tribal colleges and universities.
56 College of Menominee Nation, President position description and college mission statement (Keshena, WI: College of Menominee Nation, January 30, 2017), www.menominee.edu.


60 Ibid., 129.

61 Ibid.

62 Ibid.


66 Ibid.

67 Ibid.

68 Ibid.

69 Ibid.

70 Ibid.

71 Ibid.

72 Ibid., 131.