



CHAPTER 16

FOOD SOVEREIGNTY, JUSTICE, AND INDIGENOUS PEOPLES

*An Essay on Settler Colonialism
and Collective Continuance*

KYLE POWYS WHYTE

INTRODUCTION: “ALL THE VALUE THAT RICE HOLDS”

ALL people are involved in various ways, from production to consumption to recycling, in food systems. Food systems refer to the complex chains of food production, distribution, consumption, recirculation, and trade. These chains are entangled with human political, cultural, and economic institutions—institutions through which humans relate to and impact nonhuman lives (e.g., plants, animals) and ecosystems (e.g., coral reefs, forests). Food system chains can be viewed from rather local perspectives, such as a neighborhood’s access to fresh vegetables, or from more regional and global perspectives, such as the effects of droughts on the supply and prices of crops in many countries.

Food injustice occurs when at least one human group systematically dominates one or more other human groups through their connections to and interactions with one another in local and global food systems. In Michigan in the United States, where I live, white racism, class discrimination, and capitalist exploitation engender domination inflicted on people through the vector of shared food systems. African American Detroiters live in neighborhoods that lack access to nutritious and fresh foods and, due in part to the corresponding diets, suffer the higher than average negative health consequences (White 2011). Farmworkers, largely Latino, are paid low wages for their work and live in housing that is “extremely substandard, including structural defects, lack of clean running water, exposed wires, overcrowding, close proximity to fields (and thus pesticides) and poor sanitation”



(Michigan Civil Rights Commission 2010, 2-3). Members of the Sault Ste. Marie Tribe of Chippewa Indians have historically had reduced access to culturally appropriate and economically valuable foods from the biodiverse St. Mary's River (the confluence of two of the Great Lakes) due to pollution from a paper mill and steel mill in Canada and sewage and a tannery site in the United States (Ripley 2016). Recently, the tribe opposed a limestone mine in an area where tribal members harvest plants and animals because the mine threatens its "court-affirmed [treaty] right to have unlimited access to this land for spiritual and cultural purposes" (Sault Ste. Marie Tribe of Chippewa Indians 2015).

Scholars, activists, leaders, and policymakers offer many norms aimed at correcting food injustices in how goods associated with food systems are allocated, including the rights of all people to affordable and accessible nutritious and culturally appropriate foods and the rights to fair wages and safe work and living environments in food-related industries. In terms of democratic norms, people from groups vulnerable to food injustices should have opportunities to voice their concerns to policymakers, serve in advisory, leadership, or official capacities in government, and have access to legal and scientific resources to better advocate for their well-being.

In this essay, I will focus on another norm that comes up in situations involving human groups that seek to govern themselves in different respects (e.g., culturally, socially, economically, etc.) as collective societies—such as Indigenous peoples. The norm is food sovereignty or, according to one prominent definition, "the right of peoples and governments to choose the way food is produced and consumed in order to respect livelihoods" (La Via Campesina 2009, 57). Food sovereignty, then, is a norm defending the self-determination of some collectives, including societies such as peoples and governments, over their food systems.

Indigenous peoples often describe food injustice as a violation of their collective self-determination over their food systems (Whyte 2016). The Sault Ste. Marie Tribe, referenced earlier, states that the limestone mine violates its treaty right (an agreement with the United States) to self-determine how its members care for and harvest plants and animals in that area for spiritual and cultural purposes. In many cases in the Great Lakes region, where I work, Indigenous peoples argue that their collective self-determination over their food systems, or food sovereignty, is tied to the conservation of particular foods, such as wild rice (Donlin 2015; Hoover 2016). A former Minnesota Chippewa tribal president, Norman Deschampe, said: "We are of the opinion that the wild rice rights assured by treaty accrue not only to individual grains of rice, but to the very essence of the resource. We were not promised just any wild rice; that promise could be kept by delivering sacks of grain to our members each year. We were promised the rice that grew in the waters of our people, and all the value that rice holds" (Andow et al. 2009, 3). According to one Anishinaabe elder, Frances Van Zile: "There is no substitute for wild rice. My whole way of being as an Indian would be destroyed. I can't imagine being without it. And there is no substitute for this lake's rice" (Great Lakes Indian Fish and Wildlife Commission 1995).

But how is it that conserving a particular food could be so closely entwined to collective self-determination? Is it not also the case that, philosophically, suggesting that certain foods define Indigenous collective self-determination freezes Indigenous peoples in time in ways that Indigenous leaders and scholars typically resist (Cornell and

Kalt 2000; Goeman and Denetdale 2009; Mihesuah 2009; Lyons 2010)? I will argue that Indigenous peoples' claims about the connections of particular foods to collective self-determination are much more complicated (Huambachano 2015). The claims are more about how colonial domination, in contexts such as US settler colonialism, is organized to undermine certain human institutions that are pivotal to Indigenous peoples' capacities to exercise collective self-determination, food sovereignty being a significant part of that. Some food injustices against Indigenous peoples are best understood, I will show, as violations of Indigenous food sovereignty that colonial societies, such as the United States, inflict on Indigenous peoples as strategies in the larger project of undermining Indigenous collective self-determination.

This essay will cover many concepts, and I request forgiveness from the readers in advance as there will be some concepts I will not have the time to fully define or defend, as well as connections among concepts that I cannot successfully account for in the span of this writing. In the first section, I provide some background on the claim that the conservation of certain foods and food systems is closely connected to a societies' exercise of collective self-determination under US colonial conditions, using treaty rights and salmon in the Pacific Northwest as an example. In the second section, I describe, using some of the literature on resilience and Indigenous peoples in the Pacific Northwest, some reasons Indigenous peoples often advance for why particular foods or food systems are associated with one facet of collective self-determination—adaptive capacity or resilience. A food system is one collective capacity of a society that motivates its overall adaptive capacity.

In the same section, I develop my own concept, *collective continuance*, to describe the overall degree of adaptive capacity a society has when we take all its collective capacities into account, from food systems to gender systems. Collective capacities contribute to collective continuance because they consist of relationships that have certain qualities, two such qualities being trustworthiness and ecological redundancy, which I will define carefully. In the third section, drawing on Karuk perspective and ideas, I show how US settler colonialism, as a form of domination, seeks to undermine these qualities of relationships, which then compromises Indigenous collective continuance.

In the end, I seek to show how, for Indigenous peoples, food injustice can manifest as violations of food sovereignty that some Indigenous people associate with the destruction of particular foods or food systems. Violations of food sovereignty are one strategy of colonial societies, such as US settler colonialism, to undermine Indigenous collective continuance in Indigenous peoples' own homelands.

“WITHOUT SALMON THERE IS NO TREATY RIGHT”

Many Indigenous peoples signed treaties with the United States that sanction agreements of the parties to a range of Indigenous rights with respect to US settlement. One type is rights protecting Indigenous peoples' relationships to particular foods from the

actions of settlers. Many Indigenous peoples currently claim that the United States has violated treaty rights connected to particular foods and food systems. Billy Frank Jr., the late Nisqually leader, describes his view on the violations against the treaty tribes of western Washington in the Pacific Northwest:

Through the treaties, we reserved that which is most important to us as a people: The right to harvest salmon in our traditional fishing areas. But today the salmon is disappearing because the [US] federal government is failing to protect salmon habitat. Without the salmon there is no treaty right. We kept our word when we ceded all of western Washington to the United States, and we expect the United States to keep its word. (Treaty Indian Tribes in Western Washington 2011, 6)

The Treaty Rights at Risk initiative, which Frank helped to lead, issued a report claiming that “as the salmon disappear, our tribal cultures, communities and economies are threatened as never before. Some tribes have lost even their most basic ceremonial and subsistence fisheries—the cornerstone of Tribal life” (Treaty Indian Tribes in Western Washington 2011, 6). Respect for treaty rights, as treaties are agreements of the highest legal significance connecting different societies, is at the same time respect for the collective self-determination of the society holding the rights. The tribes in the case are arguing that salmon conservation, treaty rights, and collective self-determination are of a piece. Frank refers to this elsewhere as “food sovereignty,” which to him involves the idea that “our treaties recognize that food is at the center of our cultures. Indian tribes are sovereign nations, and part of that sovereignty includes access to the traditional foods needed to keep ourselves and our communities healthy and strong” (Frank 2012).

According to the Treaty Rights at Risk initiative, the US federal government violates treaty rights by endorsing activities that permit US settlers to establish their own ways of life in western Washington at the expense of Indigenous peoples’ ways of life, which heavily involve salmon but also other treaty-protected plants and animals. Dams, intensive agriculture, urban development, pollution from industry and other land-use practices, including recreational activities, are among the actions that advance settlers’ aspirations at the same time that they degrade the habitats of salmon and other species (Treaty Indian Tribes in Western Washington 2011).

In settler colonial contexts such as the United States or Canada, treaty rights are, at one level, legal issues that involve court proceedings and formal negotiations to resolve. At another level, treaty rights raise moral issues concerning justice and rights to collective self-determination (and hence food sovereignty) between Indigenous and settler societies. *Treaty Rights at Risk* claims that the United States agreed to respect the entwinement of salmon, salmon habitat, and human institutions—where human institutions include norms, conventions, and administrative structures that support cultural integrity, economic vitality, health, and political order—that is, what has been referred to earlier as “Tribal life,” “the center of our cultures,” and “healthy and strong” communities.

At the heart of these Indigenous claims is a theory of food sovereignty that pertains to situations in which two or more societies live in the same places. In these situations, one

form of injustice that can occur is settler colonial domination. Roughly, settler colonial domination occurs when several factors are present. First, at least one society secures its members' cultures, economies, health, and political sovereignty by permanently inhabiting the places in which one or more other societies already inhabit and without any of the original societies having consented. The original societies have already cultivated these places to suit their members' own cultures, economies, health, and political sovereignty.

Second, the settler societies engage in settlement by erasing the capacities that the societies that were already there—Indigenous societies—rely on for the sake of exercising their own collective self-determination over their cultures, economies, health, and political order. Common strategies of erasure used by settler societies everywhere include boarding schools designed to eliminate Indigenous languages, forced adoption of Indigenous children by settler families, renaming locations in settler languages, failing to feature Indigenous histories in public education, ignoring Indigenous issues in the media, stealing Indigenous knowledge and claiming settler intellectual ownership over the knowledge, ignoring agreements such as treaties or decrees, among many others. The actions settlers perform that carry out strategies of erasure are diverse. Some actions are conscious or deliberate, such as blatant violations of legal agreements that advance US economic interests against Indigenous ones. Others rely on moralizing narratives, such as how some Christians believed forcing Indigenous children to assimilate would civilize them. Yet others are quite tacit, such as individual persons who in everyday speech refer to the United States as “giving” land or special privileges to Indigenous peoples.

Although many settler actions are tacit or involve ignorant moralizing narratives, when it comes to food sovereignty, US settlers deliberately endorsed actions of erasure to undermine Indigenous collective self-determination. For example, in 1889, when the United States forced many Indigenous persons to become farmers, a Bureau of Indian Affairs Report stated: “The Indians must conform to the ‘white man’s ways’ peaceably if they will, forcibly if they must. They must adjust themselves to their environment, and conform their mode of living substantially to our civilization. This civilization may not be the best possible but it is the best the Indians can get” (Prucha 2000, 176). Regarding the collapse of salmon populations due to damming in the Pacific Northwest, one US senator made it clear what was going on when the opening of Dalles dam in Oregon in the 1950s erased Celilo Falls, one of the premier Indigenous salmon fisheries in the region. “Our Indian friends deserve from us a profound and heartfelt salute of appreciation. . . . They contributed to [the dam’s] erection a great donation—surrender of the only way of life which some of them knew” (Barber 2005, 4).

Frank’s statement refers to the US-endorsed actions (i.e., deliberate violations of treaty rights) that erase Indigenous food systems as carrying out one strategy that works to secure settler cultures, economies, health, and political sovereignty in western Washington. Again, he claims, “Without the salmon there is no treaty right.” Frank tethers Indigenous self-determination (the treaty right) to salmon habitat (an ecological system). The initiative states that “as the salmon disappear, our tribal cultures, communities and economies are threatened as never before.”

Salmon habitat, in *Treaty Rights at Risk*, is discussed as entwined with human institutions as a collective capacity supporting Indigenous self-determination. US settlement works to erase this capacity through diverse actions ranging from treaty violations to the ignorance of private citizens whose actions, such as littering or pollution through their business ventures, add up to degrade salmon habitat. Food injustice, in this settler colonial situation, is a derivative of settler colonial domination. That is, food injustice occurs when settler societies interfere with the food systems of Indigenous societies as a strategy for securing their own members' cultures, economies, health, and political sovereignty in places already inhabited by Indigenous peoples. This interference is both nonconsensual and conducive to producing health problems, such as higher rates of diabetes and hypertension that are associated when Indigenous peoples do not eat traditional diets (Dittmer 2013).

I will show that the tethering of salmon habitat and Indigenous collective self-determination is part of rather complex claims that food systems promote certain human institutions that advance Indigenous collective self-determination. Settler strategies to erase Indigenous food systems, such as salmon habitat, dismantle Indigenous capacities to support their collective self-determination. The mechanics of how dismantling occurs involve settler societies working to actively unravel the entangled relationships between human institutions and food. What these human institutions are in relation to food and food systems is the topic of the next section.

THE ENTWINEMENT OF HUMAN INSTITUTIONS AND FOOD SYSTEMS

Food Systems and Resilience

Indigenous persons, among them many Indigenous scholars, have sought to understand how foods and food systems are important beyond their function of providing nutrition and calories. To begin to understand what this means, I will build my account using some of what Indigenous scholars have written about Northwest coast Indigenous societies in North America whose food systems involved a number of species, including salmon (Clayoquot Sound Scientific Panel 1995; E. R. Atleo 2002; M. R. Atleo 2006; Trospen 2009). I will focus mostly on Ronald Trospen's extensive studies here. The societies include groups such as the Nuu-cha-nulth and Kwakwaka'wakw in areas in what is now known by most as British Columbia. Trospen focuses on the potlatch ceremony, which exemplifies the intertwinement of human institutions and the conservation of certain foods.

I will cover just a slice of Trospen's and others' analyses of the potlatch to highlight the ceremony's positive contributions supporting these Indigenous peoples' collective self-determination. Perhaps as surprise to some, in these studies, *collective self-determination*

comes to mean something more than decision-making authority; rather, it comes to mean *a society's overall capacity to adapt to social and environmental changes, or resilience*. Although I want to note, especially for readers who are concerned with any brief reconstructions of any society's way of life, that my argument does not depend on my making the case that Northwest coast Indigenous peoples are or were perfect environmental stewards or bereft of moral shortcomings before the recent wave of foreign settlement.

Trosper evaluates the potlatch ceremony's contributions to collective self-determination in terms of its role in facilitating resilience, or adaptive capacity, according to Crawford Holling and Lance Gunderson (2002) and the Resilience Alliance (2002). In this sense of adaptive capacity, resilience refers to a society's persistence in the face of environmental variability, that is, the "capacity of a social-ecological system to absorb or withstand perturbations and other stressors such that the system remains within the same regime, essentially maintaining its structure and functions" (Resilience Alliance 2002). Trosper seeks to connect the human institutions intertwined with food systems through the potlatch ceremony to the capacity to adapt to social and environmental changes.

One of the main goals of the ceremony was for "titleholders" of different "houses" to give away as much of their "wealth" as possible to others. Houses are "corporate groups with proprietorship to specific lands and fishing sites" (Trosper 2003, 7) and titleholders are the highest ranking leaders of houses (though not in a dictatorial sense). Wealth included food, especially salmon, and other edible and nonedible materials harvested from each house's lands and waters. "Proprietorship" should not be understood as individual private property. Rather, houses, which included many different roles for members, actively cultivated the plants, animals, physical entities, terrains, and waters of the ecosystems they inhabited, creating in members a strong sense of moral responsibility to protect ecosystem functions.

Marlene Atleo (2006) describes this as the "social fabric," or "*hahuulhi*," of each houses' connection to the ecosystems it comes from. The particular lands and waters shared by different houses were referred to as the "common bowl" (Trosper 2009, 50). M. Atleo describes how potlatch ceremonies were carefully organized spatially to respect participants' deep connections to and knowledges of their houses' specific ecosystems (M. R. Atleo 2006). A successful potlatch ceremony was required for the "reincarnation of salmon and other humans, essential to generate that very wealth" (Trosper 2003, 9) that must be given away at the ceremony. For Trosper, contra other interpreters (Krech 1999), the belief in reincarnation motivated conservation because tribal members saw salmon and humans as mutually responsible for sustaining each other over time. E. Richard Atleo describes how for the Nuu-chah-nulth, "The salmon does not give its life, but rather, in an act of transformation, is prepared to give and share its 'cloak' in endless cycles, provided the necessary protocols are observed, which indicate mutual recognition, mutual respect, mutual responsibility, and mutual accountability." For Atleo, salmon and deer, among other species, are in "a relationship of trust and honor" with humans (E. R. Atleo 2002, 202-203).

In ecological terms, salmon are significant for their contributions to forest ecosystems, especially, as is widely accepted, that Pacific Coastal forests receive significant amounts of nitrogen, vital to tree growth, from the many pounds of anadromous salmon that bears kill when the fish return to inland streams to spawn, the bears dragging the fish deep into the forests to feed, nitrogen spreading through decomposition and bear's urine. Insects also eat dead salmon, which has the effect of supplying more food for birds and other forest creatures; dead salmon are also eaten by crabs (Grames 2012; Lichatowich 2001).

In light of the ecology of salmon, titleholders "were regarded as people with special knowledge and spiritual power" in relation to salmon. They were responsible for making informed decisions about salmon conservation for their houses. Trospen writes that "there was an aspect of secrecy and privately held knowledge underpinning the position of titleholders. Yet, there also had to be a shared system of knowledge, if scientific understanding had developed among them" (Trospen 2003, 12). While hereditary lineage was often one criterion for titleholder candidates, their candidacy gets judged publicly and critically by both other members of their houses and the representatives of other houses during potlatch ceremonies. To become accepted as a titleholder, a person had to organize a feast to give away wealth, which meant candidates had to know how to conserve sufficient salmon and the ecological sources of other gifts too (Trospen 2009, 50-80).

The capacity to hold a feast involved motivating fellow house members to help in this effort. During the potlatch ceremonies, the members of the other houses took careful records about exactly how much was given and to whom. They reserved the right to object to a titleholder giving beyond what could be ecologically sustained. Titleholders could, hence, be removed if their knowledge or stewardship capacity was insufficient for hosting a feast, their house members objected to their leadership, or if the other houses judged their harvest to be unsustainable (Trospen 2009, 50-80). This system involves a public, highly transparent process for evaluating humans' responsibilities to salmon.

Through potlatch ceremonies, kinship relations were established and maintained that connected different houses through friendship, marriage, and other connections. The kinship relationships created "a way for people living in different areas to provide aid to people in other areas." In one extreme case, "in which the failure of a salmon run caused an entire village to cross over a watershed divide and seek sustenance from others; the assistance obtained had to be repaid at a later date" (Trospen 2003, 8). The social ties facilitated this exchange, as the houses knew they were taking their best interests to heart. The relationships solidified through potlatch ceremonies served to support the making of difficult decisions about what to do when a member of society acted badly. "Trespass was a capital offense that would be enforced, usually after a warning. Killing a trespasser obligated the enforcer to invite the members of the trespasser's house to a feast in order to prevent a cycle of killing from occurring" (8). There were detailed, consensus-based processes for dispute resolution in which absolute respect was accorded to the right of the participants to each express their knowledges and arguments (Trospen 2009).

Trospen sees the many responsibilities related to potlatch as a "type of buffering system [that] had to operate at a relatively large scale, as salmon run failures would occur over

an entire river system or tributary to a major river. Regional networks existed in separate parts of the Coast” (Trosper 2003, 8). The potlatch, then, facilitated large diplomatic networks across houses, facilitating trust and reliability across houses and worked to make sure people recognized and were accountable for their interdependence. Trosper discusses how “on a smaller scale, when neighboring houses all harvested salmon from a major river, they had to deal with the interdependence of their harvests” (8). Trosper claims that “the knowledge that neighbors would share their surplus through the potlatch system” made it so that “cooperation” not individual hoarding is “the correct strategy” (8).

Trosper seeks to show how potlatch establishes and solidifies norms of resilience such as “high grading is not allowed” and “consumption has an upper bound” (Trosper 1995) and that allowed these societies to buffer, self-organize, and learn in response to environmental issues (Trosper 2009). That is, the salmon-based food system, concretized in one way through potlatch ceremonies of Northwest coast peoples, made it possible for these Indigenous peoples to adapt to change without incurring certain harms, such as malnutrition. Thus, Trosper describes humans figuratively as a species that played a pivotal, or keystone, role in maintaining relationships among many other species making up the ecosystem.

For Trosper, when Canadian settlers outlawed the potlatch ceremony between 1885 and 1951, in addition to destructive actions they took that weakened the salmon habitats and altered the ecosystems, they struck a blow to both salmon populations and human relations to salmon. This interference with Indigenous food systems worked to compromise the capacity of Northwest coast Indigenous peoples to exercise collective self-determination. Collective self-determination now includes, in my analysis, a society’s capacities to be resilient—a society’s overall adaptive capacity. So conserving a species, such as salmon, is of a piece with the human institutions and human institutions that facilitated resilience.

Collective Capacities and Food Systems

Reflecting on the previous section, I understand food systems through the idea that they are specific collective capacities that groups use to cultivate and tend, produce, distribute, consume their own foods, recirculate refuse, and acquire trusted foods, ingredients, and technologies from others. The relationship between salmon and potlatch reflects a slice of the entwinement of human institutions and food systems. In this way, food systems can be understood as collective capacities because they motivate human institutions that produce or facilitate certain valuable goods, such as political sovereignty, nutrition, and spirituality, and avoid preventable harms, such as starvation and undernourishment. Here, I am not committed to the view that human institutions solely exist because they serve functions or originate from such functions. Rather, I am simply highlighting that Indigenous peoples are arguing normatively that some entwinements between human institutions and food

systems are important to protect because of what they can contribute to collective self-determination. The contribution focused on here is actually the collective capacity to adapt to social and environmental change while maintaining values such as nutrition and peace.

I will go into more detail on what it means to say that a food system is a collective capacity. Collective capacities involve deep connections between human institutions (e.g., houses, potlatch ceremonies) and ecosystems (e.g., habitats, humans as keystone species). A collective capacity is valuable as a mechanism for facilitating adaptation to changes that arise from environmental and human sources. As Troster shows, supporting buffering is a key role that the food system plays. In this way, the concept of collective capacities aims to describe an ecology (i.e., an ecological system) of interacting 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 collective's (such as an Indigenous people) adaptation to changes (Figueroa and Waitt 2011; Werkheiser 2015).

In previous work, I have described the changes, using language common in some areas of environmental science, as meta-scale forces. Meta-scale forces are disruptions and perturbations that affected societies seek to adapt and adjust to without comprising their cultural integrity, economic vitality, degrees of health, and political self-determination (Whyte 2015). Meta-scale forces can be rising or declining average temperatures or changes in patterns of precipitation or infectious diseases caused by human migration or religious conversion by other populations. The forces may be human-induced (anthropogenic) or based on complex earth systems over which humans have little control.

The forces motivate local changes that vary by location depending on a number of factors: for example, the spread of disease may hit some groups harder than others. As in most understandings of ecology and agro-ecology today, the term "ecology" is not denoting systems or capacities always seeking to bounce back toward some equilibrium. Rather, capacities are organized in ways that reflect more or less suitable adaptations to various meta-scale forces over previous time (and what counts as suitable depends on perspective) (Whyte 2015). In many cases, collective capacities have evolved so that they are resilient to many of the challenges they have faced over time.

But newer challenges that fall outside that range, including global environmental change and the intervention of other societies (e.g., settler colonialism), may interfere with, perturb, or degrade the ability of the traditional capacity to provide valued aspects of a collective's quality of life, such as cultural integrity, freedom, food security, public health, and so on. According to various human perspectives, we can think about the suitability of the collective capacities of our societies to adapt to certain meta-scale forces in ways that enhance or hinder our quality of life. From now on, I will refer to collective capacities and ecologies interchangeably since collective capacities—such as Indigenous food systems—are really ecological systems (Whyte 2015). While the term "ecologies" may strike some as strange, I use it to suggest both ecosystems but also the calculated stewardship of them (hence, the -logy).

A society can have many collective capacities that contribute to the cultural, economic, and political fabric of that society, food systems being one of them. Other examples of collective capacities could be gender systems, for example, which can be unpacked just as I have unpacked food systems via Trospen's work. Gender systems designated leadership positions, environmental responsibilities, protocols of conflict resolution, and so on, similar to the example I used from Trospen's work on salmon and potlatch. The terms "collective capacity" or "ecology" do not—then—seek to point out wholly distinct or isolated configurations of human institutions in a society (or across societies) given that, looking at the Trospen example, we could describe the potlatch system as part of a gender-systems-based collective capacity or ecology or a religious-systems-based collective capacity or ecology. Instead, I focused on it as a food-systems-based capacity or ecology.

In this sense, by framing my analysis as I do, what I am pointing out is that analyzing collective capacities is akin to zooming in on a particular dimension of a society's collective self-determination and unpacking its significance for the sake of some goal, like the analysis of food justice. If we choose to zoom in very closely on food or gender, we can talk about them separately, yet as we gradually zoom out, we will find both overlap and reinforce each other, which creates opportunities for us to explore ecologies at different scales and through different interconnections. When we zoom in on a specific collective capacity, its value concerns the capacity to adapt to meta-scale forces in ways that produce and protect specific values associated with nutrition, motivations for stewardship, or the cultural integrity of certain ceremonies. If we zoom all the way out, where different capacities overlap, there is then the overall adaptive capacity. I will use the concept collective continuance to describe this overall adaptive capacity. I use collective continuance instead of resilience or simply adaptive capacity because I want to use the concept to go in directions that literatures on these other concepts do not typically go into at all or at least in the way that I would like to now.

Food and Collective Continuance

When we zoom all the way out, we can see that all of a society's collective capacities contribute to what I seek to call a society's collective continuance. Collective continuance is a society's overall adaptive capacity to maintain its members' cultural integrity, health, economic vitality, and political order into the future and avoid having its members experience preventable harms. That is, meta-scale forces and local changes present the potential for humans to face risks and suffer harms. A high degree of collective continuance refers to the state of having collective capacities consisting of human institutions that are organized in ways that are suitable for adjusting to potential changes, learning from the past, and mobilizing members of society to tackle hard problems.

Again, human institutions range from norms, to skill sets, to decision-making protocols, to social hierarchies or fluidities. When we zoom in more closely to particular human institutions such as potlatch, we see that they are built on relationships that may

be exclusive to particular collective capacities (e.g., passing on knowledge of salmon habitat from elders to youth) or spread across different collective capacities (e.g., diplomatic relationships between houses). That is, collective capacities are built on relationships. The transition I will make in this section is as follows. A society's collective capacities contribute to its overall degree of collective continuance. Collective capacities consist of human institutions that are made up of relationships. I will explore in this section what types and qualities of relationships collective capacities, such as food systems, are made of. Food systems, as collective capacities, promote collective continuance by facilitating at least three types of relationships.

For the purpose of my analysis, to be in a relationship is to have responsibilities toward the others in the relationship. Responsibilities refer to the reciprocal (though not necessarily equal) attitudes and patterns of behavior that are expected by and of various parties by virtue of the different roles that each may be understood to be accountable for in a relationship. Food systems, then, can contribute to collective continuance as a capacity or ecology when they involve three types of relationships that support (1) the means of advancing robust cultural and social ways of life, (2) peaceful diplomacy and emboldened resistance to domination, and (3) the societal decision-making protocols required for evaluating high stakes decisions. Each of these relationships can flourish if they are organized in ways that facilitate the discharge of responsibilities associated with being in the relationships.

The types of relationships just described, in some cases, are very hard-to-replace immediately if lost, given their connection to particular ecologies. For example, the desire to discharge reciprocal relationships of giving (and not hoarding) in societies with potlatch ceremonies is very closely connected to persons' experiences with the cultural and spiritual value of salmon and that fact that those persons have been gaining specific knowledge about salmon since time immemorial. If salmon and salmon habitat disappear at a highly rapid pace, then it will be hard for those responsibilities to endure because the responsibilities are so closely associated with the experience and knowledge of salmon. This is not to say that an analogous responsibility cannot endure in response to change. Rather, it is to say that a highly rapid disruption to salmon or salmon habitat can increase the harms a society will incur as it adjusts to the change. There are many qualities or characteristics of relationships that both make them facilitate responsibilities and that are hard-to-replace. Qualities here, different from other conceptions of quality, are properties of relationships that make it possible for a relationship to have wide societal impact by motivating the discharge of responsibilities. I will argue for two of them here, *trustworthiness* and *ecological redundancy*.

Trustworthy relationships motivate responsibilities because parties in the relationships have reasons or emotions that track that the other parties take their best interests to heart, both in the sense of confidence that someone will do what they are supposed to and that they are so inclined (Govier 1997; Walker 2006). In Trosper's work, there is the example of the one house that traveled far during a shortage of salmon to get relief from another house. In that case, there is a sense of trust between houses that is sustained through kinship relationships, cultural and linguistic similarities, and protocols.

Trustworthiness also includes what many philosophers distinguish from trust, which is reliability and accountability (I treat both concepts as the same in this essay). For example, someone is more likely to discharge a responsibility if they know the other party has a reliable track record of fulfilling their reciprocal responsibilities back. In Trosper, titleholders had to be initiated into knowledge systems that had long track records of salmon conservation; moreover, titleholders were evaluated based on their capacity to exercise these knowledge systems well. There was a system of expertise, then, that was accountable to the community. Reliability and accountability are not so much about there being a sense that someone else will take your best interests to heart; rather they are more about there being available reasons to depend on someone else, such as evidence of their knowledge of their environment. The spiritual relationship between humans and salmon is also based on a complex relationship of trust and reliability. Salmon's sacrifice is considered a gift. The potential to facilitate reincarnation involves accountability to maintain the habitats; hence, R. Atleo described the spiritual relationship with salmon as involving trust and honor.

Ecological redundancy (or redundancy for short) refers to the idea that relationships contribute to high degrees of collective continuance only if there are a lot of opportunities to discharge the responsibilities and repeat doing so. Redundancy, the English word itself, strikes some people as a peculiar one to use; for me, I use it to highlight something that I cannot seem to express with a term like repeatability or even resilience (which is too broad). For example, one cannot exercise a responsibility to salmon if there is only one segment of a heavily degraded stream left where salmon can be harvested and if there is only one type of salmon. If that stream segment is compromised by a dam, the entire salmon culture is compromised. Redundancy refers to the idea that there are many salmon habitats and even types of salmon that can be engaged so that there are plenty of options given that different habitats are likely to change throughout the year and different types of salmon are suited to different conditions.

Another example of redundancy concerns knowledge. If an entire community relies on one knowledge holder, then that person's death would end that entire knowledge tradition—so there should be a proliferation of many knowledge holders. This is similar to language as well, where having one or two elders who speak a language does not bode well for that language's capacity to survive. M. Atleo describes how the ecosystems under the proprietorship of houses were very deliberately cultivated by creating opportunities for people to educate themselves about how, for example, to fish, cut, and store salmon. The ways the lands and waters are cultivated also involve the creation and repetition of stories and ceremonies that endow the entwined human institutions and food systems with sacredness (M. R. Atleo 2006).

Trustworthiness and ecological redundancy are qualities of relationships that collective capacities, such as food systems, consist of. But some of these relationships are hard to replace because they cannot be engendered overnight. Trust and reliability, for example, requires familiarity, protocols, natural motivations, and so on, that can require generations to establish. They are so closely connected to ecological contexts, such as salmon habitat, that if salmon were to disappear right away, people have to regroup

themselves without the knowledge base associated with salmon, kinship networks, the values, and so on. For ecological redundancy, certain relationships require particular landscapes to flourish. The hydrology and size of a region, for example, has to be right for that region to entwine with human institutions in ways that could produce sufficient salmon for food. While all societies adapt and change over time, some changes that occur too rapidly create the possibility that a society will incur harms that previously would have been preventable.

FOOD SOVEREIGNTY IN SETTLER COLONIAL CONTEXTS

Settler Colonialism and Collective Continuance

I have discussed the relationship between food systems and the collective continuance of Indigenous societies. A high degree of collective continuance means that a society has many collective capacities consisting of relationships with the qualities of trustworthiness (including reliability) and ecological redundancy. Trustworthiness and redundancy are qualities of relationships that are often hard-to-replace when compromised quickly—both because these qualities are not formable overnight and because of their connections to particular ecosystems. When they are compromised, a society's degree of collective continuance is lessened, which limits a society's capacity to exercise collective self-determination and increases the probability that members of that society will suffer what would otherwise have been preventable harms.

Settler colonialism can be understood as a form of domination that directly targets the relationships that create collective capacities (the ecologies) that make up collective continuance. That is, if we explore how US settler colonialism works, we can see that it directly dismantles the trustworthy and redundant relationships that support high degrees of collective continuance. Ironically, settler societies do this to strengthen their own collective continuance. That is, one society seeks to strengthen its own collective continuance in a different place at the expense of another society's collective continuance.

Again, settler colonial domination occurs when several factors are present. First, at least one society secures its members' cultures, economies, health, and political sovereignty by permanently inhabiting the places in which one or more other societies already inhabit. The Indigenous societies have already cultivated these places to suit their members' own cultures, economies, health, and political sovereignty. Second, settler societies engage in settlement by erasing the capacities that the Indigenous societies Indigenous rely on for the sake of exercising their own collective self-determination over their cultures, economies, health, and political order.

One of the common strategies of erasure is to erase Indigenous people's food systems. Food systems are one of the major vectors in which settler societies can destroy the

relationships required for Indigenous collective continuance. Food is associated with many hard-to-replace relationships. In this section, I look in detail at another salmon-based tribe, the Karuk tribe, and their interpretation of how settler colonialism disrupted their food system as a strategy for erasing them and lessening their collective continuance as self-determining peoples.

Karuk Views on Settler Colonialism: “If the Salmon quit running, the world will quit spinning.”

The Karuk people’s homeland of roughly 1.48 million acres is in the Klamath River basin of Northern California and parts of Oregon. The Karuk consider themselves part of the ecosystem and have long traditions of engaging in environmental stewardship in ways that laid the foundation for why the region nonetheless remains rich with diverse species and habitats today. In this section, I interpret Karuk experiences and knowledge from the publications that some tribal members have been part of, especially Ron Reed, on food sovereignty and climate change adaptation, mostly done in collaboration with Kari Norgaard (a sociologist) (Norgaard 2014a, 2014b, 2014c; Norgaard, Reed, and Van Horn 2011).

The Karuk are a salmon culture, among other key species that are part of the shared ecosystems of the basin. According to the Karuk, “species abundance and diversity of this region cannot be understood outside the Karuk knowledge and management activities that produced them” (Norgaard 2014c, 12). The Karuk carefully tended, harvested, and monitored the environment as part of their food system. The stewardship and cultural practices surrounding the use of fire, for example, are extremely significant for promoting forest ecosystems suitable for acorns, berries, roots, and fiber (hazel and willow) and to improve hunting conditions for elk and deer.

These practices are tied to ceremonies (human institutions) as well that honor and renew the relationships connecting humans, plants, animals, and fire. Frank Lake, a Karuk descendent and scientist, claims that “as a human, you have a caretaking responsibility. And so you managed areas to share acorns, to share mushrooms, to share berries to share grass seeds” (Norgaard 2014c, 14). The biodiversity across the region and, as Lake points out, the culture of sharing, lay a foundation for trustworthy and redundant relationships. These relationships are so important that some Karuk express ideas such as “if the Salmon quit running, the world will quit spinning” (Norgaard 2014c, 51).

Fire affects hydrology in ways that suit trees and shrubs that require different amounts of water. Since fire affects “the distribution of forests, shrubs, and grasslands,” it connects to infiltration from precipitation and departure from evaporation. Thus, fire affects “the balance of water in and water out” (Norgaard 2014c, 14). About three-fourths of the Karuk cultural species, from “Tan Oaks, to huckleberries and Manzanita to deer, elk and mushroom species,” are affected by fire (Norgaard 2014c, 14). For the Karuk, practices such as fire burning and salmon ceremonies create the contexts for building trust and

redundancy. They claim that “it is during the process of spending time that stories, techniques and information are shared, new observations are made, and young people are socialized around values of reciprocity and responsibility” (Norgaard 2014c, 37).

US settler colonialism in the region in the mid-nineteenth century involved drastic and radical social and ecological changes. Here I will focus on the United States’ establishment of its own collective continuance at the expense of Karuk collective continuance. In relation to the Karuk, the United States initiated “laws and policies designed to reduce Karuk people’s ability to inhabit and manage their lands.” These laws and policies “were implemented by the state of California and the Federal government specifically to achieve this transfer of wealth to non-Native settlers in the region” (Norgaard 2014c, 33).

During the Gold Rush period of the mid-1800s, three-fourths of the Karuk people were killed, including through US- and state-sanctioned bounty hunting. The settlers relocated many Karuk villages and engaged in widespread attempts to move Karuk people onto reservations. In some Karuk tribal members’ own words, these actions “all interfered with everyday ability of people to survive, much less carry out culture and the practices of tending to the natural world” (Norgaard 2014c, 14). In 1864, the Hoopa Valley Indian reservation was established, which was a much smaller area than previously inhabited by the Karuk. All Karuk people were ordered to leave their ancestral territories along the mid-Klamath and lower Salmon rivers because those areas were not part of the reservation—many moving to cities.

Gold miners, military actions, and settlements damaged the ecosystem, restricting the supply of some food sources, including fish and wildlife. White settlers did not understand the role of fire in the ecosystem. Settlers shot Karuk persons, in some cases, for setting fires. The United States also refused to recognize Karuk land title or Karuk land-use needs, since they were not based on practices US settlers could recognize, such as styles of farming popular in the United States at the time. The state of California also pressured Congress not to ratify the treaties with the tribes there because the treaty rights would interfere with mining and ranching. Many Karuk were sent to boarding schools in Oregon that stripped them of their language and culture. In the twentieth century, dip net fishing, one of the major salmon fishing methods, was outlawed.

Today, US settler colonial laws and policies remain a problem. The Karuk continue to seek to practice and strengthen burning and other practices. Yet the US Forest Service considers it illegal to perform activities that include “gathering acorns, mushrooms, berries, basketry materials, and the use of fire to create the proper conditions for these species” (Norgaard 2014c, 26). Reed, speaking of deer and elk and the relationship with acorn groves and riparian plants such as hazel, mock orange, and fibers, says that “use of those materials is dependent upon those prescribed burns. So when you don’t have prescribed burns it affects all in a reciprocal manner . . . the place becomes a desert without cultural burns” (27). For Reed, the destruction of Karuk collective capacities or ecologies removes hard-to-replace environmental conditions for the tribe’s cultural integrity and economic vitality.

The California Department of Fish and Game attempts to limit when Karuk persons can harvest fish and game according to the needs of non-Indigenous recreational

harvesting. Vera Davis, a Karuk tribal member, says: “I don’t think that no one has a right to tell us when we can do it when you have people who pay hundreds of dollars to come in, kill the venison and get the horns. I don’t think that is fair because this is our livelihood” (Norgaard 2014c, 27). Davis highlights the idea that US settler cultures and economies are expanding their cultures and economies at the expense of the Karuk people’s capacity to support themselves. The United States is substituting Karuk political self-determination with settler self-determination.

The US alternatives for the Karuk are not acceptable because they give rise to what would have been preventable harms before US settlements. Based on a Karuk-led survey of members living in the Klamath River area, “Twenty percent of survey respondents reported that they had decreased their subsistence or ceremonial activities as a result of such contacts [being caught by fish or game wardens]. To be fined or have a family member imprisoned imposes a significant economic burden on families” (Norgaard 2014c, 28). Over half the families living in the Klamath River area continued to fish and over two-thirds hunted deer, most are not in the position to harvest enough to meet family needs. Almost half of the respondents are on food assistance programs on a daily basis. The percent of families living in poverty in Karuk aboriginal territory is nearly three times that of the United States as a whole. The Klamath Basin is considered a food desert and Karuk have rates of diabetes four times the US average and heart disease three times greater (Sowerwine 2012, 5).

One Karuk report describes “this dramatic reversal in economic circumstances” as “the direct result of the systematic, state sponsored disruptions of the existing Karuk cultural and economic organization that were at the heart of traditional management and traditional knowledge” (Norgaard 2014c, 32; see also Huntsinger and McCaffrey 1995). Today, many Karuk tribal members note that state wardens are constantly watching Karuk people to make sure they obey settler policies. Leaf Hillman, also a tribal member, says “it is a criminal act to practice a traditional lifestyle and to maintain traditional cultural practices necessary to manage important food resources or even to practice our religion” (Norgaard 2014c, 23).

Yet many of the Karuk continue to seek to practice certain aspects of their culture in connection with their food systems as responses to the harsh changes engendered by US settlement. One of the tribe’s reports states that “Karuk lifeways continue to be practiced both overtly (when they can get away with it) and covertly when they cannot. From a Karuk perspective, continuance of these traditional lifeways and practices is essential not only for food, but for the maintenance of traditional knowledge, cultural and tribal identity, pride, self-respect and above all, basic human dignity” (Norgaard 2014c, 31). Consider some of the ways Karuk tribal members discuss what I previously called trust and redundancy.

In terms of redundancy, Reed, previously quoted, claims that “without fire the landscape changes dramatically,” which makes “traditional foods that we need for a sustainable lifestyle . . . unavailable after a certain point.” For Reed, “the spiritual connection to the landscape is altered. . . . When we don’t go back to places that we are used to, accustomed to, part of our lifestyle is curtailed dramatically. So you have health

consequences.” Reed’s definition of health is broad, including “nutrition,” “exercise,” and “spiritual balance” (Norgaard 2014c, 21). He argues that something like the “reduction of foraging habitat for elk” can mean “fewer opportunities for successful hunting, that in turn affects diet, food supply, the ability to engage in barter and trade, fewer social activities associated with hunting, the ability to properly conduct ceremonies, and overall cultural identity (22).

For Reed, cultural burning creates a number of types of redundancy. It cultivates the required types of biodiversity for the Karuk sustenance and culture across the landscape. In the absence of fire, otherwise preventable mental, spiritual, and health harms occur. That is, what Reed is arguing is that there needs to be a sufficient abundance of land, plants, and animals to be able to maintain cultural integrity and health. There cannot simply be one place left in which a particular plant can be harvested, for example. That one place would not be able to furnish a sufficient amount of food or fiber to support the cultural vitality needed to fashion clothing or to support true nutritional outcomes.

Reed also comments on trust and reliability. “Individuals who are unable to provide for their families and communities experience role stress and threats to their identity as Karuk people” (Norgaard 2014c, 20). Hence, family relationships are not based as much on people having reasons or emotions that give them the sense that others (in their families) are taking their best interests to heart. “On a larger scale the Karuk Tribe faces political challenges concerning the potential erosion of Tribal sovereignty in the face of continued lack of recognition of land title and taking of resources by Federal and State agencies” (20). This is a breakdown of diplomatic trust relationships between the United States and the tribe. Finally, Reed also argues that “criminalization of cultural practices matters for sovereignty because it directly prohibits the enactment of practices needed for the generation of knowledge” (22), breaking down relationships needed for trusted expertise.

Reed goes on to discuss how “people describe how their moral responsibilities are being blocked and their obligations rendered impossible to fulfill. People describe how the situation represents an extreme harm to traditional conceptions of the moral life itself, literally denial of someone’s being able to do what is right to them” (Norgaard 2014c, 47). This is certainly true when we consider that the US-imposed alternative is something that the Karuk cannot simply mold into in response to such a rapid pace of disruption. This is why the relationships of trust or reliability and redundancy are hard to replace. For Lake,

when there’s low economy and there’s no other jobs to do and it’s just tough. . . . Normally, that salmon would be that role of building that capital when you don’t have that capital, it’s not a reservoir of, either monetary or even, kind of like, “I owe you one,” type of thing to draw from or relationship in the community. Yeah, you get stressed. Just like people in a contemporary sense would get stressed for not having financial security, when you don’t have salmon security, it adds all those other dimensions of stress to it. (32)

For Lake, salmon presents a kind of “capital” that when in abundance provides the capacity to adapt to whatever challenges are occurring.

CONCLUSION: INDIGENOUS FOOD SOVEREIGNTY

Based on the Karuk perspectives, we can see how settler colonialism deliberately interferes with the food system, as a Karuk collective capacity, by breaking down the qualities of relationships that are integral for high degrees of collective continuance, leaving the tribe vulnerable to what would normally be preventable harms. Perhaps this makes more clear what is meant by the Treaty Rights at Risk initiative with expressions such as “without salmon there is no treaty right,” and that salmon is the center of “Tribal life,” “our cultures,” and “healthy and strong” communities. Or, referring back to the Anishinaabe perspectives, treaty rights protect all the “value that rice holds” and “there is no substitute for this lake’s rice.” I argue that the value of these foods is that the foods themselves are entwined with hard-to-replace qualities of relationships that comprise collective capacities. Settler colonial strategies seek to erase Indigenous food systems by attacking, at a rapid pace, the qualities of relationships that contribute to collective continuance. Settler colonial domination is both highly nonconsensual and imposes preventable harms for reasons that are morally problematic, such as settlers’ desires to establish their own economies or political orders at the expense of others when doing so is not necessary in any sense (as the land could be shared even if we imagine a case in which settlement is somehow inevitable).

If, following La Via Campesina, food sovereignty means “the right of peoples and governments to choose the way food is produced and consumed in order to respect livelihoods,” then I would make the case that what I have described in this essay represents an important dimension of how some Indigenous peoples understand food sovereignty. Even though many of the tribes I quoted associate food sovereignty with particular foods or food systems, I hope to have conveyed that this by no means commits them to a static view of Indigenous culture, economics, health, or political order. If we understand that particular foods are associated with qualities of relationships and ecosystems, I can argue that it is these particularly hard-to-replace qualities that are at stake.

That is, we can accept that, for example, over time, an Indigenous people, as many have, would change its food system drastically. But an injustice occurs, under settler colonial domination, when at least one society, the settler society, interferes with the qualities of relationships constitutive of collective continuance, which imposes social and environmental changes on Indigenous peoples in a way that is nonconsensual and at a rate so rapid that the indigenous communities suffer harms that would have been preventable before settlement. Violating indigenous food sovereignty is a strategy of settler colonial domination that erases Indigenous capacities for exercising collective self-determination. Food injustice, just in this sense, can be understood as derivative of settler colonial domination.

Looking forward, food sovereignty can be interpreted as based on particular qualities of relationships that promote a society’s overall adaptive capacity. In this essay,

I focused on Indigenous peoples' seeking food justice and food sovereignty in areas they traditionally inhabited and that are also designated as reservations or treaty areas. But my analysis of adaptive capacity is meant to apply also to the demographic realities of Indigenous peoples today, where Indigenous peoples live all over North America, especially in major urban centers. By focusing on relationships and capacities, I am proposing a model of justice and sovereignty that embraces the demographic and other diversity of Indigenous peoples, and can be used to justify expressions of food sovereignty beyond those associated with, for example, federally recognized tribal governments or treaty organizations.¹

BIBLIOGRAPHY

- Andow, D., T. Bauer, M. Belcourt, P. Bloom, B. Child, J. Doerfler, . . . and R. Walker. 2009. "Wild Rice White Paper: Preserving the Integrity of Manoomin in Minnesota." People Protecting Manoomin: Manoomin Protecting People: A Symposium Bridging Opposing Worldviews. <https://www.cfans.umn.edu/sites/cfans.umn.edu/files/WhitePaperFinalVersion2011.pdf>.
- Atleo, E. R. 2002. "Discourses in and about the Clayoquot Sound: A First Nations Perspective." In *A Political Space: Reading the Global through Clayoquot Sound*, edited by W. Magnusson and K. Shaw, 199–208. Montreal, PQ, Canada: MQUP.
- Atleo, M. R. 2006. "The Ancient Nuu-chah-nulth Strategy of Hahuulthi: Education for Indigenous Cultural Survivance." *International Journal of Environmental, Cultural, Economic and Social Sustainability* 2(1): 153–162.
- Barber, K. 2005. *Death of Celilo Falls*. Seattle: Center for the Study of the Pacific Northwest in association with University of Washington Press.
- Clayoquot Sound Scientific Panel. 1995. "Sustainable Ecosystem Management in Clayoquot Sound: Planning and Practices." Victoria, BC, Canada. <https://www.for.gov.bc.ca/hfd/library/documents/bib12571.pdf>.
- Cornell, S., and J. P. Kalt. 2000. "Where's the Glue? Institutional and Cultural Foundations of American Indian Economic Development." *Journal of Socio-Economics* 29(5): 443–470.
- Dittmer, K. 2013. "Changing Streamflow on Columbia Basin Tribal Lands—Climate Change and Salmon." *Climatic Change* 120(3): 627–641.
- Donlin, P. E. 2015. *The Power of Food: The Ojibwe Food Sovereignty Movement: A Movement towards Regaining and Restoring Indigenous Lifeways through Food in Minnesota*. Oslo: University of Oslo.
- Figuroa, R. M., and G. Waitt. 2011. "Climb: Restorative Justice, Environmental Heritage, and the Moral Terrains of Uluru-Kata Tjuta National Park." *Environmental Philosophy* 7(2): 135–163.
- Frank, Billy, Jr. 2012. "Traditional Foods Are Treaty Foods." <http://nwtreatytribes.org/traditional-foods-are-treaty-foods/>.
- Goeman, M. R., and J. N. Denetdale. 2009. "Native Feminisms: Legacies, Interventions, and Indigenous Sovereignties." Special issue. *Wíčazo Ša Review* 24:9–13.

¹ Special thanks to the generous support from the Point Reyes National Seashore Association and the Mesa Refuge through their National Endowment for the Arts grant, "Climate Change at the Western Edge."

- Govier, T. 1997. *Social Trust and Human Communities*. Montreal: McGill-Queen's Press.
- Grames, P. 2012. "Pacific Underwater: Salmon Don't Grow on Trees, but Trees Grow on Salmon." <http://www.davidsuzuki.org/blogs/healthy-oceans-blog/2012/10/-pacific-underwater-salmon-dont-grow-on-trees-but-trees-grow-on-salmon/>.
- Great Lakes Indian Fish and Wildlife Commission. 1995. *Sulfide Mining: The Process and the Price, a Tribal and Ecological Perspective*. Odana, WI: Great Lakes Indian Fish and Wildlife Commission.
- Holling, C. S., and L. Gunderson. 2002. "Resilience and Adaptive Cycles." In *Panarchy: Understanding Transformations in Human and Natural Systems*, edited by L. Gunderson and C. S. Holling, 25–62. Washington, DC: Island Press.
- Hoover, E. 2016. "From Garden Warriors to Good Seeds: Indigenizing the Local Food Movement." <https://gardenwarriorsgoodseeds.com/>.
- Huambachano, M. 2015. "Food Security and Indigenous Peoples Knowledge: El Buen Vivir-Sumaq Kawsay in Peru and Tē Atānoho, New Zealand, Māori-New Zealand." *Food Studies: An Interdisciplinary Journal* 5(3): 33–47.
- Huntsinger, L., and S. McCaffrey. 1995. "A Forest for the Trees: Forest Management and the Yurok Environment, 1850–1994." *American Indian Culture and Research Journal* 19(3): 155–192.
- Krech, S., III. 1999. *The Ecological Indian: Myth and History*. New York: W. W. Norton.
- La Via Campesina. 2009. La Via Campesina Policy Documents. <https://viacampesina.org/>.
- Lichatowich, J. 2001. *Salmon without Rivers: A History of the Pacific Salmon Crisis*. Washington, DC: Island Press.
- Lyons, S. R. 2010. *X-marks: Native Signatures of Assent*. Minneapolis: University of Minnesota Press.
- Michigan Civil Rights Commission. 2010. "A Report on the Conditions of Migrant and Seasonal Farmworkers in Michigan." https://www.michigan.gov/documents/mdcr/MSFW-Conditions2010_318275_7.pdf.
- Mihesuah, D. A. 2009. *American Indians: Stereotypes and Realities*. Atlanta, GA: Clarity Press.
- Norgaard, K. 2014a. "The Politics of Fire and the Social Impacts of Fire Exclusion on the Klamath." *Humboldt Journal of Social Relations* 36:73–97.
- . 2014b. "Retaining Knowledge Sovereignty: Expanding the Application of Tribal Traditional Knowledge on Forest Lands in the Face of Climate Change." Prepared for the Karuk Tribe Department of Natural Resources. <http://www.karuktribeclimatechangeprojects.files.wordpress.com>.
- . 2014c. "Social, Cultural and Economic Impacts of Denied Access to Traditional Management." Prepared for the Karuk Tribe Department of Natural Resources. <http://www.karuktribeclimatechangeprojects.wordpress.com>.
- Norgaard, K., R. Reed, and C. Van Horn. 2011. "A Continuing Legacy: Institutional Racism, Hunger and Nutritional Justice on the Klamath." In *Cultivating Food Justice: Race, Class, and Sustainability*, edited by Alison Hope Alkon and Julian Agyeman, 23–46. Boston: MIT Press.
- Prucha, F. P. 2000. *Documents of United States Indian Policy*. Lincoln: University of Nebraska Press.
- Resilience Alliance. 2002. "A Consortium Linking Ecological, Economic and Social Insights for Sustainability." <http://www.resalliance.org>.
- Ripley, M. 2016. "Mike Ripley on Restoring the St. Marys River for Future Generations." Second Wave: Upper Peninsula, March 24. <http://www.secondwavemedia.com/upper-peninsula/features/mikeripleyaoc.aspx>.

- Sault Ste. Marie Tribe of Chippewa Indians. 2015. "Sault Tribe Opposes Graymont Mine." <http://www.saulttribe.com/newsroom/legislative/40-newsroom/legislative/2119-sault-tribe-opposes-graymont-mine>.
- Sowerwine, J. 2012. "Enhancing Tribal Health and Food Sovereignty among the Karuk, Klamath, and Yurok Tribes in the Klamath Basin through Collaborative Partnerships." https://wrdc.usu.edu/files-ou/publications/pub__3563590.pdf.
- Treaty Indian Tribes in Western Washington. 2011. "Treaty Rights at Risk: Ongoing Habitat Loss, the Decline of the Salmon Resource, and Recommendations for Change." <http://nwifc.org/w/wp-content/uploads/downloads/2011/08/whitepaper628finalpdf.pdf>.
- Trosper, R. L. 1995. "Traditional American Indian Economic Policy." *American Indian Culture and Research Journal* 19(1): 65–95.
- . 2003. "Resilience in Pre-contact Pacific Northwest Social Ecological Systems." *Conservation Ecology* 7(3): 6–17.
- . 2009. *Resilience, Reciprocity and Ecological Economics: Northwest Coast Sustainability*. New York: Routledge.
- Walker, M. U. 2006. *Moral Repair: Reconstructing Moral Relations after Wrongdoing*. Cambridge: Cambridge University Press.
- Werkheiser, I. 2015. "Community Epistemic Capacity." *Social Epistemology* 30(1): 25–44.
- White, M. 2011. "D-Town Farm: African American Resistance to Food Insecurity and the Transformation of Detroit." *Environmental Practice* 13(4): 406–417.
- Whyte, K. P. 2015. "Indigenous Food Systems, Environmental Justice, and Settler-Industrial States." In *Global Food, Global Justice*, edited by M. Rawlinson, 143–166. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
- . 2016. "Indigenous Food Sovereignty, Renewal and U.S. Settler Colonialism." In *The Routledge Handbook of Food Ethics*, edited by M. Rawlinson and C. Ward, 354–365. New York: Routledge.