Beyond the "Ecological Indian": Environmental Politics and Traditional Ecological Knowledge in Modern North America

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Abstract

The idea of the ecological Indian dates back to at least the early modern period in Europe and initial colonial encounters between Europeans and Native North Americans. In the minds of Europeans, and later Euroamericans, the ecological Indian represented a softly spoken "noble savage," a natural conservationist who was attuned to the earth's rhythms. As the following essay reveals, this racial trope remains alive and well in the modern history of North America, inhibiting meaningful dialogue between white Americans and Indigenous/First Nations people on environmental issues and the rapid pace of global warming. Through case studies of the Campo Indian Reservation in southern California, the Pine Ridge Reservation in South Dakota, and Native American opposition to the construction of oil pipelines through tribal lands, in addition to

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analysis of the environmental writings of Indigenous scholars and activists such as Deborah McGregor and Winona LaDuke, this essay aims to advance historical and environmental discourses beyond racial stereotypes. The article also seeks to encourage a deeper, serious, and more meaningful engagement with Native American environmental knowledge and social practices to more effectively meet the environmental challenges confronting Native and non-Native peoples alike in twenty-first-century North America.

INTRODUCTION

According to Kimberly Tallbear (Sisseton-Wahpeton Oyate of South Dakota), the so-called ecological Indian remains alive and well in twenty-first-century America. Tallbear observes that white environmentalists routinely draw on racial stereotypes that depict Native Americans as "soft-spoken" people who reject "the white man's laws and practices" and remain loyal to "traditional" land and water use patterns.[1] In recent decades, the referencing of "authentic Indians" and "uncontaminated" Indigenous knowledge has tended to mute the voices of Native American people on issues of ecological sustainability and the rapidity with which climate warming is altering biota and ecosystems.[2]

This essay aims to move beyond the racial stereotypes identified by Tallbear. It does so by incorporating brief case studies of the Campo Indian Reservation in southern California, the Pine Ridge Reservation in South Dakota, and Native American opposition to the construction of oil pipelines through tribal lands to illuminate how racial stereotypes about ecological Indians continues to hamper Indigenous efforts to exercise territorial sovereignty effectively and implement environmental policies deemed to be in the best interests of Native communities. The essay also analyzes the scholarship and activism of two Anishinaabe women on opposite sides of the US-Canadian border to reveal how traditional ecological knowledge (or TEK) can have both local applications and transnational implications.[3] Deborah McGregor (Anishinaabe, Whitefish River First Nation in Ontario) and Winona LaDuke (Anishinaabe of the White Earth Reservation in Minnesota) have made significant contributions to scholarly and political discussions about resource sustainability and ecological management practices. Their intellectual work and activism has also sought ways to foster economic self-sufficiency and sustainable agricultural practices, in addition to resisting the exploitative practices of corporations engaged in oil, gas, and coal extraction on Native lands. The work of McGregor and LaDuke highlights how TEK is a

transnational force that guides Native and First Nation spokespeople in articulating approaches to resource management and ecological sustainability.

Late twentieth- and early twenty-first-century Native American environmental activism and knowledge systems are not born out of the racial stereotypes associated with the ecological Indian. Instead, Indigenous ecological knowledge is the product of an ecological awareness that is historical, spiritual, and political in nature. This awareness is dynamic in character, providing a framework for understanding Native American insights into how to meet the challenges of global environmental change in the twenty-first century. Significantly, the writings of McGregor and LaDuke, and the experiences of Indigenous people at the Campo and Pine Ridge Reservations, reveal how Native American ecological awareness intersects with the economics and politics of neocolonialism in modern North America.

This ecological awareness is grounded by TEK. While Native scholars and activists have long striven to articulate and apply traditional knowledge in their respective communities, it has only been since the late 1980s that the broader scholarly community has begun to incorporate TEK into environmental studies.[4] For Indigenous scholars and environmental activist like Deborah McGregor, TEK acquires its contemporary meaning within the context of Indigenous cultural revival movements of the late twentieth century. McGregor notes that these movements center on a cooperative ethos for resource management and conservation. TEK, as the following analysis reveals, is a source for Native empowerment that allows communities to "reclaim traditional values and practices," undermine racial stereotypes about ecological Indians, and elevate Indigenous voices in negotiations with Euroamerican governments—especially in the United States and Canada—on issues such as resource management and environmental sustainability.[5]

DEFINING THE "ECOLOGICAL INDIAN"

The modern ecological Indian idea has its antecedents in the imaginations of Europeans and Euroamericans from the late fifteenth century. It was a product of a relational history in which Europeans and Euroamerican traders, missionaries, and settlers believed their civilization was socially and culturally more advanced than the civilizations nurtured by North America's Native peoples.[6] By the eighteenth and nineteenth centuries, Europeans and Euroamericans focused their mythologizing on "noble" ecological Indians living in harmony with nature as a way to highlight how Western civilizations had produced spiritually broken people—societies of isolated individuals

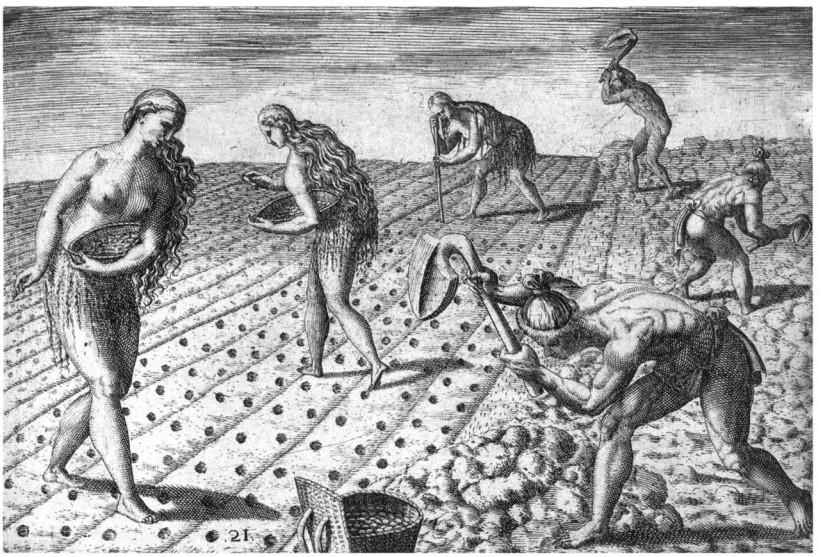

Figure 1: Theodore de Bry's engraving provides an early example of how Europeans perceived Native American attention to the local ecology as critical to their agricultural cycles. Credit: Theodore de Bry, *Florida Indians Planting Seeds of Beans or Maize*, 1591. Library of Congress Rare Book and Special Collections Division, Washington, DC, LC-USZ62-31869.

who had become overly materialistic. In contrast, Europeans and Euroamericans imagined Native Americans as transhistorical figures possessing nurturing feminine qualities that allowed them to remain connected to the rhythms of the natural environment, thereby anchoring an emotive spirituality thought to be long extinguished in the white man's soul.

The cultural, economic, and political structures that people of European descent brought to the New World—trade, Christianity, centralized governments, technological inventiveness, and the development of capitalism—coexisted alongside the nurturing of romantic images of the so-called ecological Indian and the noble savage living on "vacant soyle."[7] A long list of European intellectuals and writers such as John Dryden, Thomas Southerne, Aphra Behn, Charles-Louis Montesquieu, Garbielle Mably, Guillaume-Thomas Raynal, and Denis Diderot, used the imagery of the "noble savage" to question the morality of European colonialism in the New World.[8] These writers routinely emphasized the duality of masculine civilization and simple-minded, yet effeminate, Indigenous societies, a binary that received its most forceful articulation in Rousseau's *A Discourse on the Origin of Inequality* (1755) and his exploration of "savage man."[9]

Many fine works of scholarship explore how Euroamerican writers, musicians, and playwrights adapted Rousseau's conceptualization of

the "savage man" in the two centuries after the publication of his *Discourse*.[10] It is not my intention here to revisit the arguments made by Rousseau scholars. Suffice it to say that Rousseau was not writing specifically about Native Americans; however, Rousseau's "savage man" ultimately provided European and Euroamerican writers, playwrights, and songwriters with a ready language to craft the imagery of the prototypical Native American—the "noble savage." From the earliest years of the American republic, we see the transformation of Rousseau's "savage men" in, for example, the story of Samson Occom (Mohegan). Occom was the most famous eighteenth-century Native American to emerge in New England society. A convert to Christianity, he helped to spread Christianity through his writings and his leadership of the Brothertown movement. But when missionaries first encountered Occom, he appeared as the prototype of the ecological Indian and "noble savage." Occom reportedly lived simply, resided in a wigwam—its materials being "the simple Product of nature."[11] Alternatively, the eighteenth-century literature, theater, and opera, such as Julia Kemble Hatton's *Tammany, A Serious Opera* (1794), turned out cultural productions that reified the ecological Indian and "noble savage" in American culture.[12]

By the nineteenth century, the so-called noble savage had become a fixture in American popular culture. Among the most influential literary figures to craft narratives about noble savages in the American wilderness were James Fenimore Cooper and Henry David Thoreau.[13] Cooper and Thoreau typified the transcendental and sentimental tenor of American literature during the antebellum era. Transcendentalists, who believed that individuals possessed an "indwelling" God and should act on intuitive thought, wrote "sentimental" prose that emphasized feeling over empirical logic. The American Indian—in the form of either the "noble savage" or his literary extension, the ecological Indian—were blessed with these emotional and spiritual qualities, qualities that were routinely feminized. Henry Wadsworth Longfellow's epic poem *Hiawatha* (1855) portrayed Native Americans with the spiritual and emotional qualities that transcendentalists and romantic writers longed for. Longfellow's Indians were thus men of action, equipped with the keenest of instincts.[14] In 1857 Ralph Waldo Emerson lamented that the excesses of "civilized" and "industrialized" American society had all but extinguished the ideal of "primitivism." For Emerson, the Indian was passing from the world's stage and would eventually become extinct. All the more reason, he felt, for white men to comprehend the Indian's knowledge of the natural world, a knowledge that the "civilized" man had lost.[15] "An Indian has his knowledge for use," Emerson wrote approvingly, "and it only appears in use. Most white men that we know have theirs for talking purposes."[16]

Figure 2: Noël François Bertrand's picture represents America in allegorical terms, linking the imagery of a "young Native maiden" to the idea of the American wilderness as a feminine space ripe for colonial penetration and conquest. Credit: Noël François Bertrand, *L'Amerique*, ca. 1820. Library of Congress Rare Book and Special Collections Division, Washington, DC, LCUSZ62-101601.

Racial stereotypes about "noble savages" and ecological Indians possessing an emotional connection to the land while lacking any understanding of Western-style property rights were deeply embedded in European and Euroamerican culture by the latter half of the nineteenth century.[17] From P. T. Barnum's "Congress of Nations" in the 1850s, to vaudeville stereotypes, Buffalo Bill Cody's Wild West

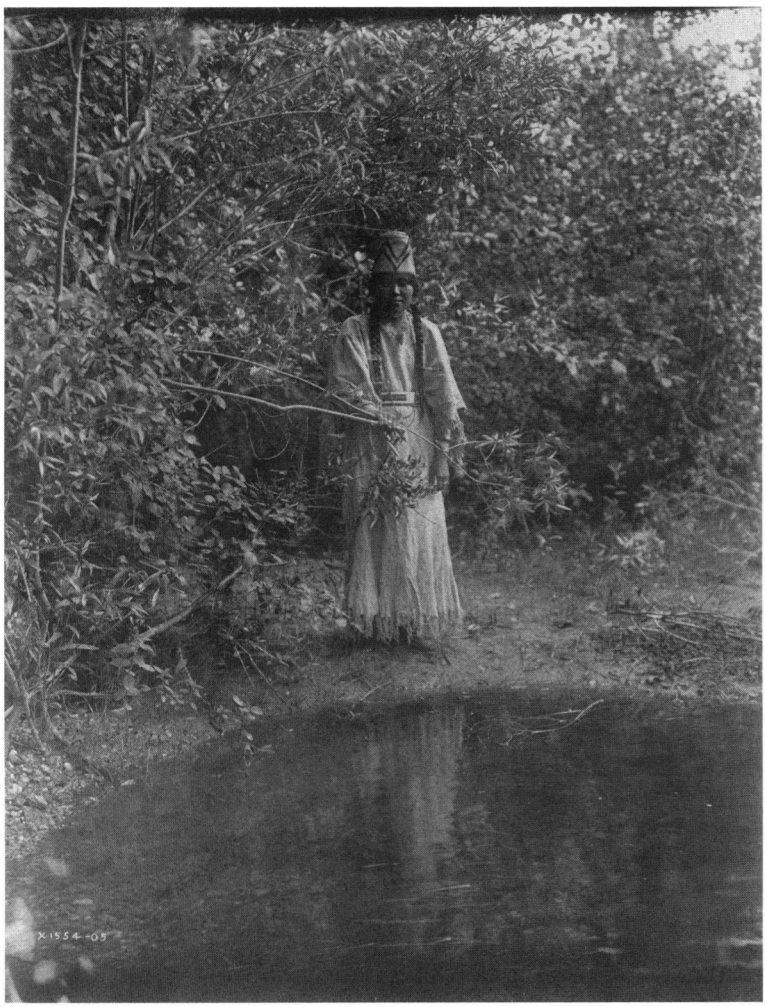

Figure 3: This photograph by Edward S. Curtis typified how early twentieth-century photographers staged Photographs of Indigenous women to convey a sense of "nature" as feminine and to emphasize the ecological Indian's innate understanding of nature's rhythms. Credit: Edward S. Curtis, *Out of the Forests' Depths Stepped an Indian Maiden*, ca. 1905. Library of Congress Rare Book and Special Collections Division, Washington, DC, LCUSZ62-130194.

Show, and the portrayal of Native Americans in motion pictures and advertising, Indigenous people possessing keen instincts, laser-precision senses, and a simple-minded love of the land became stitched into the fabric of America's racial culture during the twentieth century.[18]

The historical portrayal of ecological Indians and noble savages were the subject of Shepard Krech's controversial book *The Ecological*

Indian (1999). Krech's analysis renewed both scholarly and popular interest in the ecological Indian. His objective was to test the validity of the mythology against what he considered to be the empirical reality of environmental history in North America. Krech interrogated the idea of "the Indian in nature who understands the systemic consequences of his actions, feels deep sympathy with all living forms, and takes steps to conserve so that the earth's harmonies are never imbalanced and resources never in doubt."[19] Krech thus began his analysis with a romantically overdrawn, ahistorical image of an unchanging "Indian." From this starting point Krech developed the binary ecological Indian, one good, or "noble," the other "ignoble," or bad.[20] He found no evidence to support the assertion that "the American Indian is a nonpolluting ecologist, conservationist, and environmentalist, and that the white man is not."[21] Moreover, Krech concluded that pre-Columbian Native Americans were unable to maintain a sustainable balance between human society and nature. Krech thus found no empirical evidence to support the idea that "the Indian in nature" understood the "consequences of his actions" or felt a "deep sympathy for all living forms."[22]

Since the publication of Krech's *The Ecological Indian,* scholars have addressed both the content of his argument and reengaged with the trope of the ecological Indian. This scholarship has often been punctuated with highly charged rhetoric.[23] Darren Ranco, for example, criticized Krech not only for his simplistic use of racial stereotypes, criticism of Native cultures, and silence on issues like territorial sovereignty, but for the way Krech's analysis is "grievously disengaged from the contemporary issues of Indian communities."[24] Ranco's larger criticism of Krech's analysis is a valid one: Krech took the position of the "casual, and distant, critic." As Ranco suggests, this was the type of position taken by ethnographers and anthropologists for much of the nineteenth and twentieth centuries, a position that invariably led non-Indigenous scholars to pass judgments on what was, and was not, "authentic" Indian culture and behavior.[25] Ranco thus reminds us that the imagery associated with the ecological Indian tends to be an overly contrived cultural construction that slides into the realm of imposed racial stereotypes and reinforces a binary that artificially distinguishes between the ecologically aware Indian and the ecologically destructive Native.

Commenting on this binary, Melissa Nelson (Turtle Mountain Band of Chippewa) observes that conceptualizing Native Americans as "either simple, pure, and in tune with nature, or savage, selfish, and harmful to the land" highlights a "conspicuous lack of understanding of the diversity and humanness of Native Americans."[26] Nelson offers more than simply a rebuttal of the stereotypes ascribed to the ecological Indian; she draws our attention to the ways in which TEK is "making significant contributions in a variety of scientific and

environmental fields." Nelson observes that Indigenous scientists and educators have successfully woven TEK into the broader fabric of ecological knowledge and public policy debates. Indigenous scientists and educators like Gregory Cajete (Santa Clara Pueblo), Leroy Little Bear (Blood Tribe of the Blackfoot Confederacy), and Winona LaDuke have proven influential in this respect.[27] Building on the insights of these Native writers, Nelson is at pains to emphasize how the comanagement of natural resources by Native and Western scientists has influenced the application of TEK by nongovernmental organizations in colonized environments from Australia to Alaska.[28] Applying TEK in a world in which technology continues to change how humans interact with the environment and in which racial stereotypes about noble and ignoble ecological Indians persist remains a very real challenge.[29]

Few recent cases emphasize the complex interplay among science and technology, TEK, tribal sovereignty, and racial perceptions than the Campo Landfill case in southern California.[30] At the beginning of the 1990s, the Campo Band of Mission Indians declared their intention to construct a solid waste landfill on their reservation, located approximately one mile from the Mexican border. Campo leaders insisted that the landfill would be state of the art, an assurance designed to assuage critics that the landfill would not contaminate a nearby aquifer.[31] The battle against the Campo landfill united farmers, ranchers, and local environmental groups, most notably Backcountry Against Dumps (BAD), organized by Donna Tisdale. This unlikely triumvirate produced some passionate pleas against the proposed landfill, in addition to some stunningly vitriolic attacks on Campo leaders. For example, Arol Wulf, a farmer and member of BAD, contended that the "Indians are trying to ruin our land." Wulf added, "a dump is against what Indians have always stood for."[32] Wulf was not alone in expressing these views. Another farmer told a *New York Times* reporter, "We are going to keep the land from being destroyed by the Indians." Ralph Goff, the Campo tribal chairman, rejected such statements. While Goff publicly acknowledged the financial benefits of the landfill to the Campo people, he maintained that "it is a sound project," and "environmentally it can be done safely." Goff's supporters and lawyers agreed, criticizing environmental activists for showing a lack of respect for Indian sovereignty and implying that Native Americans were incapable of overseeing the construction of an environmentally sound waste management system.[33]

After a drawn-out political and legal battle, the secretary of the interior agreed with Goff. Plans for the landfill's construction were approved in 1993.[34] What the debate over the landfill exposed was how local white farmers, ranchers, and environmentalists insisted that they knew what "authentic" Indians would do when presented with the possibility of constructing a solid waste landfill on their

reservation. In his analysis of the Campo landfill controversy, Dan McGovern wrote that the decisions Native peoples make about land use practices sometimes contradicts the "conventional wisdom of white Americans" who imagine Native Americans living in "harmony with their environment."[35] Opponents of the Campo landfill may have been well intentioned, but their opposition to the Campo's decision was predicated on the same uncritical use of Western stereotypes that Krech also fell victim to in his analysis of the ecological Indian.[36] By imagining "authentic" Indians living in a timeless past, Campo landfill opponents constructed ignoble ecological Indians who seemed willing to pollute the environment in return for substantial financial remuneration. In this way, these white opponents failed to see beyond their own prejudices.

MOVING BEYOND THE "ECOLOGICAL INDIAN"

The controversy surrounding the Campo landfill is but one of many examples that highlights how the imagery of the ecological Indian continues to inform public discourse about Native American and environmental issues.[37] A common feature of the trope of the ecological Indian remains the idea that authentic Indians live in harmony with nature and have an environmentally neutral impact on local ecologies. In contrast, Native American people and communities that do not behave according to prescribed racial stereotypes are too easily dismissed as inauthentic and environmentally destructive, just as critics upbraided the Campo Indians for approving the construction of a landfill on their reservation. In other words, Indigenous "authenticity" remains a part of the colonial and racial matrix of US colonialism and contemporary environmental politics.[38]

Since World War II, the colonial and racial matrix has been conceptualized in the public imagination by pop culture representations of so-called real Indians. Movies have played a major role in this popular imagining of authentic Indians, but so too has the Native tourist industry contributed to a historical imagery.[39] In Cherokee, North Carolina, for example, the Oconaluftee Indian Village promises visitors a snapshot of "authentic" Cherokee life, just as it was eleven thousand years ago. This living history attraction, located in the Smoky Mountains, provides tourists with a view into one version of Cherokee history before they get into their cars to spend a few hours with nature in the nearby Great Smoky Mountains National Park. Thus the visual and oral narratives that tourists encounter at the Oconaluftee Indian Village overlap with what tourist brochures tout as the unspoiled beauty of the Smoky Mountains National Park.[40]

There is, however, a tension in all this, one born of the enduring impact of US colonialism and of how Euroamerican perceptions of

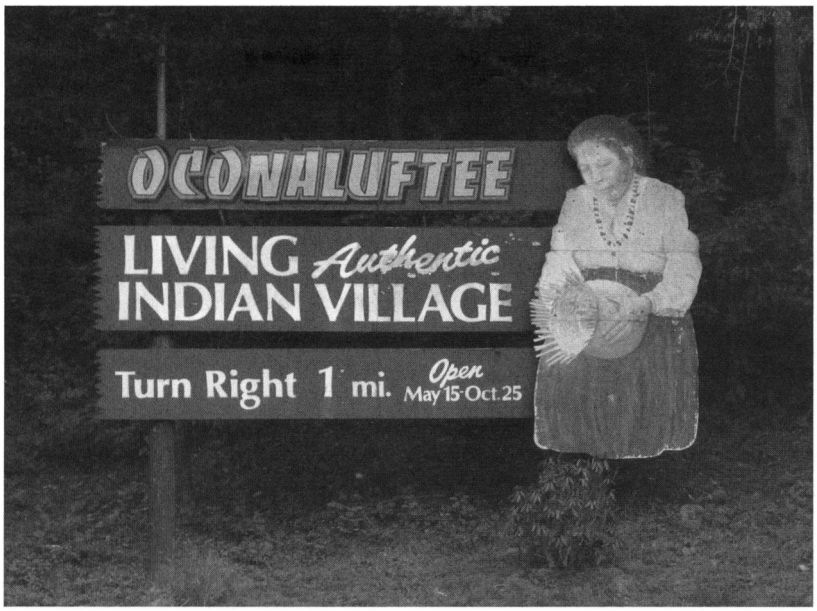

Figure 4: A sign in Cherokee, North Carolina, advertising Oconaluftee, a "Living *Authentic* Indian Village." Photograph by the author.

"authentic" versus "assimilated" Indians, and the "natural" as opposed to the "manmade" environment, continue to shape cultural and historical perceptions. But these issues are not meant to crowd the thoughts of tourists who leave these types of attractions and return to their suburban homes with the storyline of Indians living simple and ecologically aware lives intact.[41]

The traditional, authentic, and ecological Indian as a figure of consumer consumption and tourist entertainment contributes to how white Americans frame political and economic questions about tribal sovereignty, Indigenous economic self-sufficiency and agricultural production, and political debates about environmental sustainability. Melissa Nelson highlights these issues when she writes of how American colonialism continues to have an impact on Native American communities. She argues, "Ongoing cultural genocide persists every time Indians are denied religious freedom, federal recognition, treaty rights, a 'seat at the table,' and other fundamental rights."[42] For Native American activists, such is the case with contemporary political, legal, and economic issues related to tribal sovereignty, agriculture, and environmental protections.

Thus enduring storylines associated with the ecological Indian make it possible for twenty-first-century Americans to divert their attention away from the socioeconomic and legal structures of

modern-day colonialism. This has become increasingly apparent to Native American environmental activists. Since the passage of the Indian Civil Rights Act in 1968 (an act that Indian activists note has actually eroded tribal autonomy) and the end of the termination policy, Native American environmental activism has done much to challenge racial stereotypes and cultural clichés about Indigenous peoples. Native environmental activists have therefore become vocal and sophisticated in critiquing the federal government's Indian policy. In particular, Native environmental activists have played an important role in spotlighting the collusion between government and corporations. In the contemporary neocolonial context, this collusion has involved governments working to make it possible for multinational corporations to sidestep issues of tribal sovereignty and extract natural resources from tribal lands. Federally backed subsidies for major oil companies and legislative approval for fracking are just two of myriad examples of how Native American environmental activists are able to connect the defense of tribal sovereignty with issues of ecological sustainability.[43]

While Native American activists address these issues in relation to their respective local communities, Indigenous activists and community leaders are not blind to the broader implications of the tribal sovereignty-environmentalism dynamic. For example, Gwich'in leader Sarah James has written about the "very real threat" posed by global warming.[44] James does not mince her words, emphasizing a basic truth: "Too much waste and greed" has over the past century changed the environment and warmed the earth's atmosphere. Her solution rests on a simple principle: "We have to give up some things in order to balance the environment. We must learn to share more, to reuse, recycle, and use less energy."[45] James lays no claim to possessing innate spiritual insights into the earth's ecologies. She is, however, conscious that human behavior has changed the global environment, thus necessitating modifications in that behavior.

In acknowledging the impact that human beings have on the environment, Native Americans have not lost sight of the spiritual importance of land and water in Indigenous culture. Gail Small (Cheyenne), for example, acknowledges that there "is a profound spiritual dimension to our natural environment." This acknowledgment, however, should not be seen as acceptance of the ecological Indian trope and of so-called authentic Native women doing things the "old-fashioned way."[46] Small is clear on this, stating, "Some white people look to us for help in their struggle with loss of identity, spirituality, and a sense of security. Unfortunately, we can't give that to them. They need to find it within themselves and their own cultures. When they try to appropriate tribal cultures, they have a negative impact on our culture and alienate themselves even more from their own ability to be centered."[47]

These women defy stereotypes. They are not, as the ecological Indian motif emphasizes, passive observers of social, political, and environmental change, dutifully playing the role of the soft-spoken and spiritual Indian. Instead, their words and activism highlight how issues of American neocolonialism, tribal sovereignty, and environmental change are intertwined in Native American political consciousness. To borrow from Donna Barbie, these women challenge Euroamericans to "give up satisfying legends" about Native Americans and to start seeing (and negotiating with) Indigenous Americans as real human beings.[48] They are, in other words, active political agents working to nurture families, communities, and ecosystems.

At the Pine Ridge Reservation in South Dakota, local concerns about these types of issues highlight how a generation of Oglala Sioux people has worked to foster agricultural development, cultural renewal, and a historical understanding of colonialism's ongoing legacy. Debra White Plume (Lakota), a writer and activist, and her husband, Alex White Plume (Lakota), have played leading roles in trying to stimulate both the economy of the Pine Ridge Reservation and reminding its residents of their Lakota traditions. One of the most moving examples of this awareness of colonialism's enduring impact came in 1991 when the White Plumes led efforts to return the remains of Zintkala Nuni, one of the few Indigenous survivors of the Battle of Wounded Knee, to South Dakota from an unmarked grave in California.[49]

The White Plumes have actively engaged with the ongoing legacy of colonialism for several decades. Debra White Plume, for instance, has used her Sacred Shawl Women's Society to support victims of domestic violence, a problem that Reservation life, itself a product of colonial policy and practice, exacerbates. She has also endeavored to find solutions to the chronic levels of unemployment on the Pine Ridge Reservation. "We have over 16,000 able-bodied people in the workforce," White Plume has stated of the Pine Ridge Reservation, "and we have less than 3,000 jobs."[50]

In July 1998, the Oglala Sioux Tribal Council voted on a plan that members hoped would address the chronic levels of unemployment at Pine Ridge. The Tribal Council agreed to support a proposal to grow industrial hemp on its sovereign lands. Industrial hemp is grown in over thirty countries including the United States. It also has a history of cultivation in North America that includes its production on George Washington's plantation and use by the Henry Ford Motor Company to manufacture plastic for its automobiles.[51] Industrial hemp is a variety of *Cannabis sativa* L. Varieties of the plant with a tetrahydrocannabinol (THC) ratio of greater than 1 percent are commonly used to produce marijuana. Industrial hemp, by contrast, has a THC ratio of less than 1 percent, usually around 0.3 percent. Put

simply, industrial hemp has no hallucinogenic qualities. Armed with this knowledge, and following the Tribal Council's decision, the White Plume family planted their first hemp crop in 2000. By November 2001, the Drug Enforcement Administration (DEA) and armed FBI agents—one of whom held a submachine gun at the unarmed Alex White Plume's face—responded. Failing to draw a distinction between industrial hemp and the cultivation of marijuana, federal agents entered the Pine Ridge Reservation and destroyed the hemp crop.[52]

The White Plume family viewed the cultivation of industrial hemp as the Oglala Sioux Tribal Council did: as an environmentally sustainable way to revive the reservation's economy. Previous to this decision, the Oglala Sioux at Pine Ridge Reservation relied on federal government subsidies, the growing of corn and barley, and the raising of horses to eke out a modest standard of living. The decision to cultivate industrial hemp aimed to address poverty and to remedy unemployment. Despite those intentions, the DEA opposed the cultivation of industrial hemp at Pine Ridge. It cited a 1968 federal law that prohibits the cultivation of cannabis-related crops, crops assumed to have hallucinogenic qualities.[53] While most experts reject the idea that industrial hemp has mind-altering properties, the larger issues that this case exposed relate to how tribal sovereignty was attacked because the Oglala Sioux exercised its political authority in a way that ran counter to the federal government's vision for agricultural production on Indian reservations. Put another way, federal officials appeared to believe that the Oglala Sioux were acting in ways that ran counter to stereotypes about how ecological Indians should behave. Tribal Council responded to the DEA's intrusion to its sovereignty by pointing to the hypocrisy of federal policy.[54]

As was the case in the Campo landfill controversy in California, the events at Pine Ridge were by no means isolated examples of Indigenous sovereignty being questioned or undermined during the late twentieth and early twenty-first centuries. During the first decade and a half of the twenty-first century, the proposed construction of the Keystone XL Pipeline has constituted the most significant challenge to tribal land and water resources, and tribal sovereignty. The proposed pipeline aims to connect the Alberta tar sands to refineries in the Gulf of Mexico. The White Plumes reject the idea that the pipeline will help to secure energy independence for the United States and instead see the potential for catastrophic pollution of tribal lands and further encroachments on tribal sovereignty. They have therefore led opposition to the construction of the Keystone XL Pipeline and the transportation of tar sands oil by truck through tribal lands. Feeling pressure from voters who demand cheaper gasoline and heating oil, federal and state politicians have seized on the Keystone XL

Pipeline debate as a means of galvanizing support from their respective political bases. In April 2012, for example, Republican Party presidential hopeful Mitt Romney declared his determination to construct the Keystone XL Pipeline. In contrast to the Obama administration, which initially rejected a proposal by TransCanada to build the 1,700-mile pipeline, Romney insisted that the pipeline would become a reality if he was elected president, "even if I have to build it myself."[55]

Romney's comments came just months before the Canadian-Based oil giant Enbridge Inc. was forced to pay a fine of $3.7 million for a 2010 malfunction in its pipeline, a catastrophic failure that resulted in 20,000 barrels of crude oil being spilled into the Kalamazoo River system in Michigan.[56] For Native American environmental activists, the fine was a pyrrhic victory. In protests that looked strikingly similar to those directed against the construction of the Keystone XL Pipeline, tribal groups such as the Minnesota Chippewa petitioned against the construction of Enbridge's pipeline.[57] To the detriment of the wetlands, river systems, and ecosystems that Native Americans shared (and continue to share) with whites in Minnesota, Wisconsin, and Michigan, the pipeline was built despite tribal leaders, farmers, and environmentalists forewarning of potential environmental disaster.

At Pine Ridge, protests over the proposed construction of the Keystone XL Pipeline and the use of trucks to transport tar sands oil through tribal lands mirror activism directed against the Enbridge pipeline. These protests have resulted in arrests. In March 2012, Debra and Alex White Plume led a blockade against trucks attempting to transport tar sands oil through the Pine Ridge Reservation. Debra White Plume insisted that drivers tried to sneak the trucks through Lakota lands without a permit from the Tribal Council. For her efforts, White Plume was arrested. After being released from jail she issued a statement, saying, "We stood our ground for our land, our treaty rights, our human rights to clean drinking water and our coming generations. We did this in solidarity with the First Nations people in Canada who are being killed by the tar sands oil mine, which is so big it can be seen from outer space; it is as big as the state of Florida."[58] Debra White Plume did not invoke the trope of the ecological Indian to justify her actions to halt the transportation of tar sands oil and equipment needed to construct the Keystone XL Pipeline through Lakota land. Instead, White Plume's opposition was based on a determined effort to resist the excesses of corporate colonialism in twenty-first-century America, a form of neocolonialism that not only seeks quietly to undermine tribal sovereignty, but to engage in practices that risk polluting the land and water systems that the Lakota rely on for economic, political, and spiritual life.[59]

"TRADITIONAL" KNOWLEDGE IN THE "MODERN" WORLD

The interconnectedness of tribal sovereignty, sustainable agriculture, and ecological responsibility that the White Plumes have emphasized throughout their lives has also defined Indigenous environmental activism since the 1970s. At a local, national, and international level, Indigenous women have been particularly effective in articulating statements on climate change and identifying potential solutions. For example, the Rural and Indigenous Women's Statement on Climate Change, which included Indigenous signatories from around the world, identified how "free market chauvinism facilitated by the World Trade Organization and international and regional financial institutions such as the International Monetary Fund, the World Bank, and the Asian Development Bank, have led to the relentless exploitation and exhaustion of natural resources, destruction of forest and water sources in developing countries resulting in more carbon emissions." Such impacts, which have had particularly negative consequences for "marginalized rural and indigenous communities," have been the focus of Indigenous women's written submissions to the United Nations.[60] To address the environmental challenges identified in such statements, Native activists, political leaders, and writers insist on the important role that women can play. For instance, The Manukan Declaration of the Indigenous Women's Biodiversity Network declares that "Indigenous women have a vital role to play in the protection and conservation of the biodiversity in distinct ecosystems including forests, arid and semi-arid lands, inland waters, oceans and coasts and mountains."[61]

Such statements reflect the active ways in which Indigenous women have tackled the complex issues associated with rapid global climate change.[62] Two Anishinaabe women, Deborah McGregor and Winona LaDuke (who uses the plural of Anishinaabe, "Anishinabeg," in her writings), have been among the most articulate voices in setting out the positions of Indigenous women in local, national, and international debates about environmental change.[63] McGregor, for example, is clear in her position that the "Uncritical belief in Western science and technology as the only valid approach to resolving environmental problems has fallen by the wayside." In making her case for the efficacy of Native knowledge, McGregor insists, "Science and technology, at least on their own, cannot get us out of the situation we are now in."[64]

McGregor has acknowledged that Native environmental knowledge, often referred to as TEK, is itself a construct of Western intellectual discourses. Concepts like environmental and ecological constitute reductionist terms of analysis common in Western scientific thought. As McGregor points out, Native people often perceive

the separation of human beings and environment into discrete conceptual categories as anathema to "the rest of everyday living."[65] Thus McGregor notes that TEK does not constitute a homogeneous body of thought; rather it is a fragmented body of knowledge "derived from the framework of the dominant society."[66]

That said, two important themes run through McGregor's writings. First, she views TEK as a critical component of Indigenous cultural revivals over the past half century, and second, she emphasizes how Native women are playing an active role in counteracting the ways in which neocolonial cultures devalue Indigenous knowledge for "sustaining Creation." Like Gregory Cajete, McGregor sees opportunities for Native environmental knowledge and Western science and technology to act together in meeting the challenges posed by global environmental change.[67] McGregor makes this broader point by stating, "What is required is a different way of thinking, a paradigm shift from that of Aboriginal people as objects to be studied to that of Aboriginals as real people."[68]

Such a shift in thinking will certainly challenge received forms of historical thinking, especially the types of historical imagery deployed by Krech in his analysis of the ecological Indian and the often hostile reactions of whites to Native Americans exercising their sovereignty, as was the case at the Campo and Pine Ridge Reservations, respectively.[69] McGregor's analysis of water protection has showcased how she envisions Native knowledge contributing to ecological sustainability. McGregor observes that most Indigenous cultures include narratives about the importance of water to the creation and sustaining of life. Underscoring Anishinaabe knowledge about the importance of water to human life, McGregor writes eloquently about the Anishinaabe women who began walking around the Great Lakes in the early 2000s to raise awareness about the spiritual importance of water. This walk was inspired by Anishinaabe elder Josephine Mandamin and became known as the Mother Earth Water Walk. In addition to this type of consciousness raising activity, McGregor highlights how the Anishinabek Nation, an Indigenous organization that brings Native women's voices together, created the Women's Water Commission, a body that has had a significant impact on environmental policy around Ontario's Great Lakes region. The women's activism and political engagement that McGregor has brought to scholarly attention underscores the importance of water in Native American environmental politics. To reinforce this point, McGregor quotes Edward Benton-Banai's (Ojibwe) observation that "the Earth is said to be a woman. In this way it is understood that woman preceded man on the Earth. She is called Mother Earth because from her come all living things. Water is her lifeblood. It flows through her, nourishes her, and purifies her."[70] Water, like fire, is both a life-giving and cleansing force in Anishinaabe tradition, as it is in other Indigenous

cultures. Moreover, McGregor posits that the special connection that Indigenous women have with water inheres in them a wisdom that should receive serious consideration when governments consult with local communities on issues of "water management."[71]

The active engagement of Indigenous women in environmental conservation and sustainability has constituted the life work of another Anishinaabe woman, Winona LaDuke. Since speaking before the United Nations at the age of eighteen, Winona LaDuke has been one of the most prominent, influential, and insightful Native American activist writers on issues related to environmental sustainability, neocolonialism and tribal sovereignty, and women's health and well-being. Born in Los Angeles in 1959, LaDuke grew up in California and Oregon before receiving her college education at Harvard University. She is an enrolled member of the Mississippi Band of the Anishinabeg. She has served as the director of Honor the Earth and as the campaign director for the White Earth Land Recovery Project. Outside of Native America, LaDuke is best known for being Ralph Nader's running mate on the 1996 and 2000 Green Party presidential ticket.[72]

LaDuke has made her voice heard on environmental and tribal sovereignty issues in many different arenas. She speaks regularly on college campuses, has challenged the inertia that often defines mainstream American political responses to environmental challenges, and has written eloquently in both fiction and nonfiction formats.[73] Her language and writing is readily accessible to both academic and general audiences, and her insights are often quite profound. One scholar, in comparing her writing to that of Shepherd Krech, argues that if Krech is an "iconoclast," then LaDuke is "more of a romantic."[74]

Like Native American activist writers who have come before her, such as political scientist Vine Deloria (Standing Rock Sioux), LaDuke is engaged in a decolonization project that aims to reclaim Native lands and communities from what she sees as the neocolonial American state.[75] LaDuke has attempted to engage the structures of neocolonialism in the United States with language that is both scholarly and a call for action. She has urged increased ecological awareness, claiming, "Our bodies are a mirror of our mother, and of Mother Earth," and she has directly addressed the reality of global warming.[76] "Somewhere between the teachings of Western science and those of the Native community," LaDuke has written, "there is some agreement about the state of the world. Ecosystems are collapsing, species are going extinct, the polar icecaps are melting, the ozone layer is withering, and nuclear radiation has contaminated the land."[77]

LaDuke sees a clear connection between Indigenous cultural traditions and the political and economic issues that have confronted Native Americans in the late twentieth and early twenty-first centuries. "It's difficult to separate 'cultural' from other projects,"

LaDuke contends, "because they are so integrated."[78] LaDuke is thus a proponent of pressing Native American political agendas at all levels of society—from the political to the everyday. She has also expressed a belief in the importance of asserting Indigenous perspectives into the "mainstream" political agenda.[79] But if there is one factor that has enabled LaDuke to distinguish her thinking on the environment and issues of tribal sovereignty it is that lndigenous women have an active role to play.[80] To facilitate this engagement, LaDuke has actively promoted the Indigenous Women's Network, a grassroots collaborative that champions issues of major concern to Native women.

LaDuke has given these organizational activities their intellectual thrust through her writings and speeches. For over two decades, she has connected cultural, political, and environmental activism with her interpretations of traditional Indigenous spirituality and the importance of seasonal changes to Native understandings of the world. LaDuke maintains that such connections are not only important to Native American environmental activism, but are critical for women to make. "As a woman," LaDuke argues, "I think it makes sense for me to worry about whether my great-grandchildren can live here and whether indigenous communities can survive." She adds that environmental awareness and activism is as much a woman's issue as it is an Indigenous concern: "I also think the mainstream women's movement should be more concerned about the environment. That's a women's issue. Take breast cancer, for example. Women should be rioting. Instead, the disease gets overly personalized and all of the toxic dumping and environmental destruction that cause it get ignored."[81] The cultural and intellectual starting point from which LaDuke has urged greater ecological awareness is rooted in her understanding of traditional Indigenous knowledge systems. She explains that "Traditional ecological knowledge is the culturally and spiritually based way in which indigenous peoples relate to their ecosystems. This knowledge is founded on spiritual-cultural instructions from 'time immemorial' and on generations of careful observation within an ecosystem of continuous residence. I believe that this knowledge represents the clearest empirically based system for resource management and ecosystem protection in North America."[82] LaDuke's emphasis on the importance of traditional knowledge, empirical observations, and an awareness of "natural law" has remained a consistent thread in the way she addresses the relationship between human behavior and the environment. "The key to a sustainable society," she argues, "is accountability to natural law. Indigenous, or land-based societies (wherever they are found in the world or in history), understand that all life is accountable to natural law. Laws made by nations, states, provinces, cities, etc., are inferior to this supreme law."[83]

But how do Indigenous environmental activists define natural law? LaDuke defines it in reference to the cyclical nature of the seasons—of birth, death, and rebirth—in Native American philosophies. Natural law, LaDuke contends, is "An alternative interpretation of the world. . . [that involves] 'continuous rebirth.' This is how we traditionally understand the world and how indigenous societies have come to live with natural law." Importantly, LaDuke's understanding of Indigenous traditions is not that of static, unchanging cultures; instead, Native knowledge systems are dynamic, innovative, and adaptable. As LaDuke explains, "Two tenets are essential to this paradigm [of continuous rebirth]: cyclical thinking and reciprocal relations and responsibilities to the Earth and creation."[84]

Adapting traditional Indigenous philosophies about the environment to the modern world also magnify the significance of reciprocity in debates about ecological sustainability. In Western cultures, reciprocity is overshadowed by the principles of competition, the accumulation of wealth, and economic possessiveness. In contrast, Indigenous concepts of reciprocity in North America view nonhuman and human ecosystems as interconnected. Whether human or nonhuman, this worldview considers all life-forms as animate. And governing all of this, LaDuke explains, is an ethos: "You take only what you need, and you leave the rest."[85]

LaDuke has made these arguments in a systematic and sustained way in numerous books. In *Recovering the Sacred* (2005), she presents a series of case studies that demonstrate how the history of colonialism continues to have an impact on Native Americans. She observes that examples of academic bullying, corporate greed, the "jackhammer of industrial society," and the "binge of neocolonial expansion" that has gone on in recent coal mining and oil drilling operations all highlight how the concerns of American Indians are so often dismissed or simply treated with contempt.[86] In lobbying to retain access to land and water resources on tribal lands, LaDuke points out that universities, corporations, and governments all too often dismiss Native American viewpoints on the grounds that they are not authentic Indian perspectives, or because the profit-driven activities of corporate America prioritize economic growth as *the* critical component of national security ahead of environmental sustainability and respect for the sovereignty of Indigenous nations.

CONCLUSION

Winona LaDuke's activism and writing continues to focus on environmental justice for tribal nations in the United States. Like the

White Plumes, she opposes the erosion of tribal sovereignty so that oil pipelines can cut through Indian Country or so trucks can transport dirty tar sands oil through Indian reservations without permits from Tribal Councils.[87] And like Deborah McGregor, LaDuke encourages Native peoples to connect with their traditions and to apply lessons millennia in the making to foster sustainable agricultural practices and the management of ecosystems in the twenty-first century. Such an approach involves local action that promises to have transnational consequences.[88]

The recent history of the Campo in California, the Oglala-Sioux at Pine Ridge, and the insightfulness of Indigenous women like Deborah McGregor and Winona LaDuke provide a broad framework for moving beyond the stereotypes associated with the ecological Indians and beginning to recognize that concepts such as ecology, environment, and sustainability are historically specific, culturally constructed, and yet intimately intertwined. Concepts like ecology, environment, and sustainability have lived meanings, and it is through specific human consciousness and cognition that these concepts receive validation and meaning. How an individual, or group of individuals, see the ecology of a particular place and how they narrate its value both shapes and is shaped by the dynamic nature of belief systems. This dynamism is particularly pronounced in Indigenous societies with traditions of oral storytelling, a narrative form that is the basis for human behaviors and a traditionally grounded, yet simultaneously modern, socially relevant, and meaningful, understanding of the nature-human balance.

I make these points not to reiterate the ahistorical mythologies associated with the "noble savage" and ecological Indian; instead I offer them as a reminder that the ecological knowledge accumulated in Native American communities is over two millennia in the making. This knowledge may well offer all Americans solutions to the environmental destructiveness wrought across North America by over four centuries of colonialism and offer insights into how to address the realities of global environmental changes in the twenty-first century. We would all be well served to shelve the stereotypes associated with the ecological Indian and instead heed the lessons of First Nations environmental groups such as the Women's Water Commission of the Anishinabek Nation, incorporate the ideas of Native Women like Debra White Plume, Deborah McGregor, and Winona LaDuke into local, national, and international discussions about rapid global climate change, and to engage in a meaningful dialogue with Indigenous communities and families living with unprecedented extremes in weather and dramatic modifications in ecosystems throughout North America.

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Notes

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1 Kimberly Tallbear, "Racialising Tribal Identity and the Implications for Political and Cultural Development" (paper presented at the Indigenous Peoples and Racism Conference, Sydney, Australia, February 20–22, 2001, 4).

2 V. F. Cardova, "Ecoindian: A Response to J. Baird Callicott," *Ayaangwaamizin: The International Journal of Indigenous Philosophy* 1, no. 1 (Spring 1997): 31; Nicholas James Reo and Kyle Powys Whyte, "Hunting and Morality as Elements of Traditional Ecological Knowledge," *Human Ecology* 40 (2012): 15.

3 Emilie S. Cameron, "Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation to the Human Dimensions of Climate Change," *Global Environmental Change* 22 (2012): 103–14.

4 In some quarters, the incorporation of TEK into the broader corpus of humanities, social scientific, and scientific work on the environment continues to be dismissed, as Jose M. V. Fragoso and Nicholas J. Reo discovered in the course of filing a grant application with the US National Science Foundation in the early 2000s. See Jose M. V. Fragoso and Nicholas J. Reo, "Complex Interactions between Biota, Landscapes, and Native Peoples," *Ecological Processes* 2 (2013): 28.

5 Deborah McGregor, "Indigenous Knowledge in Canada: Shifting Paradigms and the Influence of First Nations Advocates," *Proceedings of the 1999 Sustainable Forest Management Network Conference, 14–17 February, 1999*, ed. Terrence S. Veeman, Daniel W. Smith, Brett G. Purdy, Fiona J. Salkie, and Gillian A. Larkin (Edmonton: Sustainable Forest Management Network, 1999), 193, 195. See also Robert E. Johannes, "Traditional Ecological Knowledge: A Collection of Essays—Introduction," in *Traditional Ecological Knowledge: A Collection of Essays,* ed. Robert E. Johannes (Cambridge: IUCN Publication Services, 1989), 6; Marie Battiste, "Enabling the Autumn Seed: Towards a Decolonized Approach to Aboriginal Knowledge, Language, and Education," *Canadian Journal of Native Education* 22, no. 1 (1998): 16–27; Fragoso and Reo, "Complex Interactions between Biota, Landscapes, and Native Peoples," 28; Winona LaDuke, "Traditional Ecological Knowledge and Environmental Futures," in *The Winona LaDuke Reader,* ed. Winona LaDuke (Stillwater: Voyageur Press, 2002), 78; Charles R. Menzies and Caroline Butler, "Understanding Ecological Knowledge," in *Traditional Ecological Knowledge and Natural Resource Management,* ed. Charles R. Menzies (Lincoln: University of Nebraska Press, 2006), 1–2; Paul C. Rosier, "'Modern America Desperately Needs to Listen': The Emerging Indian in an Age of Environmental Crisis," The Journal of American History 100, no. 3 (December 2013): 711–735.

6 Roy Harvey Pearce, *Savagism and Civilization: A Study of the Indian and the American Mind* (1953; repr., Berkeley: University of California Press, 1988), 99; Robert F. Berkhofer, *The White Man's Indian: Images of the American Indian from*

Columbus to the Present (New York: Vintage, 1978), 110; Bernard Sheehan, *Savagism and Civility: Indians and Englishmen in Colonial Virginia* (New York: Cambridge University Press, 1980), 3; William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983), 4–5; Anthony Pagden, *European Encounters with the New World: From Renaissance to Romanticism* (New Haven: Yale University Press, 1993), 166–68; Karen Ordahl Kupperman, *Indians and English: Facing Off in Early America* (Ithaca: Cornell University Press, 2000), 20. Historian Joyce Chaplin observes that sixteenth-century English theorists hypothesized that Native Americans were in fact migrants to North America, thereby posing questions about their nativity and claim to the land and waterways of the New World. See Joyce Chaplin, *Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500–1676* (Cambridge: Harvard University Press, 2001), 178.

7 Minister John Cotton famously wrote that the Native Americans lived on "a vacant soyle." See Cronon, *Changes in the Land*, 56. See also Timothy Dwight, *Travels in New-England and New-York*, vol. 2 (London: William Baynes and Son, and Ogle, Duncan, and Co. Paternoster Row, 1823), 493–94; Louis S. Warren, "The Nature of Conquest: Indians, Americans, and Environmental History," in *A Companion to American Indian History*, ed. Philip J. Deloria and Neal Salisbury (Oxford: Blackwell, 2002), 287–306.

8 Deborah P. Fisk, ed., *The Cambridge Companion to English Restoration Theatre* (Cambridge: Cambridge University Press, 2000), 280; Joanna Lipking, "'Others,' Slaves, and Colonists in Oroonoko," *The Cambridge Companion to Aphra* Behn, ed. Derek Hughes and Janet Todd (New York: Cambridge University Press, 2004), 179; Darren J. Ranco, "The Ecological Indian and the Politics of Representation," in *Native Americans and the Environment: Perspectives on the Ecological Indian*, ed. Michael E. Harkin and David Rich Lewis (Lincoln: University of Nebraska Press, 2007), 32–51.

9 Terry J. Ellingson, *The Myth of the Noble Savage* (Berkeley: University of California Press, 2001), 81–82.

10 See, for example, Gaile McGregor, *Noble Savage in the New World Garden: Notes Toward a Syntactics of Place* (Bowling Green: Bowling Green State University Press, 1988); Stelio Cro, *The Noble Savage: Allegory of Freedom* (Waterloo: Wilfred Laurier University Press, 1990), x. See also Gregory Evans Dowd, "Wag the Imperial Dog: Indians and Overseas Empires in North America, 1650–1776," in *Companion to American Indian History*, ed. Deloria and Salisbury, 46–67.

11 William DeLoss Love, *Samson Occom and the Christian Indians of New England* (Boston: The Pilgrim Press, 1899), 46, 92. On the Brothertown movement, see David J. Silverman, *Red Brethren: The Brothertown and Stockbridge Indians and the Problem of Race in Early America* (Ithaca: Cornell University Press, 2010); Linford D. Fisher, *The Indian Great Awakening: Religion and the Shaping of Native Cultures in Early America* (New York: Oxford University Press, 2012).

12 Pearce, *Savagism and Civilization*, 172.

13 McGregor, *Noble Savage in the New World Garden*, 120.

14 Pearce, *Savagism and Civilization*, 192.

15 Pearce, *Savagism and Civilization*, 147; David A. Gerstner, *Manly Arts: Masculinity and Nation in Early American Cinema* (Durham: Duke University Press, 2006), 26.

16 Ronald A. Bosco and Joel Myerson, eds., *The Later Lectures of Ralph Waldo Emerson, 1843–1871*, vol. 2, *1855–1971* (Athens: University of Georgia Press, 2001), 58. See also Pearce, *Savagism and Civilization*, 147. See also p. 120; Greg Garrard, *Ecocriticism: The New Critical Idiom* (New York & London: Routledge, 2004), 120.

17 Such ideas helped to rationalize Native American dispossession in the early nineteenth century and embed what Mark Rifkin calls "settler common sense" in American popular and political culture. Mark Rifkin, *Settler Common Sense: Queerness and Everyday Colonialism in the American Renaissance* (Minneapolis: University of Minnesota Press, 2014), xvi.

18 Cronon, *Changes in the Land*, 61–62; Philip B. Kunhardt and Peter W. Kunhardt, *P. T. Barnum: America's Greatest Showman* (New York: Alfred A. Knopf, 1995), 176–78; L. G. Moses, *Wild West Shows and the Images of American Indians, 1883–1933* (Albuquerque: University of New Mexico Press, 1996), 3–6; Louis S. Warren, *Buffalo Bill's America* (New York: Alfred A. Knopf, 2005), 195; Peter C. Rollin and John E. O'Connor, eds., *Hollywood's Indian: The Portrayal of the Native American in Film* (expanded ed., Lexington: University of Kentucky Press, 2003); Edward Buscombe, *Injuns! Native Americans in the Movies* (London: Reakton Books, 2006). See also Philip J. Deloria, *Playing Indian* (New Haven: Yale University Press, 1998).

19 Shepard Krech III, *The Ecological Indian: Myth and History* (New York: W.W. Norton, 1999), 22.

20 Krech, *The Ecological Indian*, 16.

21 Ibid., 22.

22 Ibid., 21, 204–5.

23 A sampling of the reviews that touch on the politicized nature of Native American history over the past generation include Colin Calloway, "The Ecological Indian: Myth and History," *Natural History* 108, no. 8 (October 1999): 64; Andrew Gulliford's review in *Environmental History* 5, no. 3 (July 2000): 415–16; Roger L. Nicols's review in *Montana: The Magazine of Western History* 51, no. 1 (Spring 2001): 79; Ray Miles's review in *Louisiana History* 42, no. 4 (Autumn 2001): 488–90; Dan Flores's review in *Journal of American History* 88, no. 1 (June 2001): 177–78; Finis Dunaway, "Gas Masks, Pogo, and the Ecological Indian: Earth Day and the Visual Politics of American Environmentalism," *American Quarterly* 60, no. 1 (2008): 92; Annette Kolodny, "Rethinking the 'Ecological Indian': A Penobscot Precursor," *Interdisciplinary Studies in Literature and Environment* 14, no. 1 (Winter 2007): 1–23; Joseph Nicolar, *The Life and Traditions of the Red Man,* ed. Annette Kolodny (Durham: Duke University Press, 2007), 102, 108, 203. See especially the debate among Baird Callicott, "Indigenous Worlds or the Indigenous World: A Reply to My 'Indigenous' Critics," *Environmental Ethics* 22 (2000): 291–310; Lee Hester, Dennis McPherson, Annie Booth, and Jim Cheney, "Indigenous Worlds and Callicott's Land Ethic," *Environmental Ethics* 22 (Fall 2000):273–90; and Cardova, "Ecoindian: A Response to J. Baird Callicott," 31–44.

24 Ranco, "The Ecological Indian," 35.

25 Ibid., 35–36.

26 Melissa Nelson, "Ravens, Storms, and the Ecological Indian at the National Museum of the American Indian," *Wicazo Sa Review* 21, no. 2 (Autumn 2006): 50.

27 Cajete has written extensively on issues of science, education, and ecology. See Gregory Cajete, *Look to the Mountain: An Ecology of Indigenous Education* (Durango: Kivaki Press, 1994); *Ignite the Sparkle: An Indigenous Science Education Curriculum Model* (Durango: Kivaki Press, 1999); *Native Science: Natural Laws of Interdependence* (Santa Fe: Clear Light Publishers, 2000); *Spirit of the Game: Indigenous Wellsprings* (Durango: Kivaki Press, 2004). See also Cajete's edited volume *A People's Ecology: Explorations in Sustainable Living* (Santa Fe: Clear Light Publishing, 1999). Leroy Little Bear's thinking has been particularly influential in the field of Aboriginal land rights and sovereignty. See Leroy Little Bear,

Menno Boldt, and J. Anthony Long, *Pathways to Self-Determination: Canadian Indians and the Canadian State* (Toronto: University of Toronto Press, 1984); Leroy Little Bear, *The Relationship of Aboriginal People to the Land and the Aboriginal Perspective on Aboriginal Title* (Ottawa: Royal Commission on Aboriginal Peoples, 1994); *Naturalizing Indigenous Knowledge: Synthesis Paper* (Saskatoon: Canadian Council on Learning, 2009). See also Menno Boldt, J. Anthony Long, with Leroy Little Bear, *The Quest for Justice: Aboriginal Peoples and Aboriginal Rights* (Toronto: University of Toronto Press, 1985).

28 Nelson, "Ravens, Storms, and the Ecological Indian," 52–53. See also Tallbear, "Racialising Tribal Identity," 5–6.

29 Gregory Cajete observes that the dramatic impact that science and technology has had on the earth has Native American thinkers, like scientists and intellectuals from other racial and ethnic groups, "exploring alternative cosmologies, paradigms, and philosophies in search of models that may sustain nature rather than destroy it." See Cajete, *Native Science*, 211.

30 Cameron, "Securing Indigenous Politics, 104.

31 Robert Reinhold, "Indians and Neighbors Are at Odds over Proposed Reservation Dump," *New York Times*, January 8, 1990.

32 *The Spokesman Review*, January 17, 1990, A5.

33 Reinhold, "Indians and Neighbors Are at Odds." See also Dan McGovern, *The Campo Indian Landfill War: The Fight for Gold in California's Garbage* (Norman: University of Oklahoma Press, 1995), 18, 25, 46, 151–52; Rebecca Tsosie, "Tribal Environmental Policy and National Development Priorities," in *War and Border Crossings: Ethics When Cultures Clash*, ed. Peter A. French and Jason A. Short (Lanham: Rowman & Littlefield, 2005), 277–78. On the issue of Native sovereignty, the federal appellate court for the District of Columbia invalidated the Environmental Protection Agency's decision to treat Native tribes as states when issuing rules for solid waste programs. See Sarah Krakoff, "Tribal Sovereignty and Environmental Justice," in *Justice and Natural Resources: Concepts, Strategies, and Applications*, ed. Kathryn Mutz, Gary Bryner, Douglas Kenney (Washington, DC: Island Press, 2002), 176.

34 *The Prescott Courier*, April 30, 1993, 4B; McGovern, *The Campo Indian Landfill War*, 196–97.

35 Dan McGovern, *The Campo Indian Landfill War*, 89.

36 Scholars of environmental justice observe that corporations often seek out Native American reservations for waste management facilities because they tend to be free from federal and state environmental regulations. On this point see Luke W. Cole and Sheila R. Foster, *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement* (New York: New York University Press, 2001), 138. The official website of the Campo Kumeyaay Nation rejects such claims, insisting that the landfill is protected by "stringent regulatory oversight." See Campo Kumeyaay Nation: Campo Landfill, accessed September 24, 2014, www.campo-nsn.gov/campolandfill.html.

37 Angelika Sauer, "The Wattle and the Maple in the Garden of the Empire," in *Shaping Nations: Constitutionalism and Society in Australia and Canada*, ed. Linda Cardinal and David Headon (Ottawa: University of Ottawa Press, 2002), 125–26; Russell McGregor, *Imagined Destinies: Aboriginal Australians and the Doomed Race Theory, 1880–1939* (Melbourne: Melbourne University Press, 1997); Warwick Anderson, *The Cultivation of Whiteness: Science, Health, and Racial Destiny in Australia* (Durham: Duke University Press, 2006), 80; Patrick Brantlinger, *Dark Vanishings: Discourse on the Extinction of Primitive Races, 1800–1930* (Ithaca: Cornell University Press, 2003), 6.

38 Eva Marie Garroutte, *Real Indians: Identity and the Survival of Native America* (Berkeley: University of California Press, 2003).
39 Vine Deloria, *Custer Died for Your Sins: An Indian Manifesto* (Norman: University of Oklahoma Press, 1969), 1; Christina T. Beard-Moose, *Public Indians, Private Cherokees: Tourism and Tradition on Tribal Ground* (Tuscaloosa: University of Alabama Press, 2009), 33–34.
40 Alfred Runte, *National Parks: The American Experience,* 4th ed. (Lanham: Rowman & Littlefield, 2010), 106.
41 Garroutte, *Real Indians,* 78; Bonita Lawrence, *"Real" Indians and Others: Mixed-Blood Urban Native Peoples and Indigenous Nationhood* (Lincoln: University of Nebraska Press, 2004), 3.
42 Nelson, "Ravens, Storms, and the Ecological Indian," 47.
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46 Gary P. Nabhan, *Enduring Seeds: Native American Agriculture and Wild Plant Conservation* (Tucson: University of Arizona Press, 1989), xxvi–xxvii; Erik Trump, "'The Idea of Help': White Women Reformers and the Commercialization of Native American Women's Art," in *Selling the Indian: Commercializing and Appropriating American Indian Cultures,* ed. Carter Jones Meyer and Diana Royer (Tucson: University of Arizona Press, 2001), 176.
47 Mankiller, *Every Day Is a Good Day,* 35.
48 Donna Barbie, "Sacagawea: The Making of a Myth," in *Sifters: Native American Women's Lives,* ed. Theda Perdue (New York: Oxford University Press, 2001), 62. On this point see also Wilma Mankiller (and Michael Mallis), *Mankiller: A Chief of Her People* (New York: Macmillan, 2000), 211.
49 Renee S. Flood, *Lost Bird of Wounded Knee: Spirit of the Lakota* (Jackson: Da Capo Press, 1998), 301–3.
50 Lori Murphy, "Enough Rope: Why the United States v. White Plume Was Wrong on Hemp and Treaty Rights, and What it Could Cost the Federal Government," *American Indian Law Review* 35, no. 2 (2010–2011): 769. Recent data from a Colorado State University study confirm White Plumes' assertions. "The Reservation," "Red Cloud Indian School," accessed August 28, 2012, http://www.redcloudschool.org/page.aspx?pid=432.
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