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## Salmon Migrations, Nez Perce Nationalism, and the Global Economy

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In *The Art of Not Being Governed*, James C. Scott examines the world of self-governing peoples whose culture and social organization was a “history of deliberate and reactive statelessness.”<sup>1</sup> His account is largely focused on the hill peoples of Southeast Asia in a geographic area he calls *Zomia*, a swath of mountainous, high-altitude lands that extend from the Central Highlands of Vietnam to northeastern India. His argument is both controversial and suggestive of people who have not been fully conscripted or incorporated by the nation-state, and provides what he calls an anti “civilizational discourse” of peoples who he claims are “best understood as runaway, fugitive, maroon communities who have, over the course of two millennia, been fleeing the oppressions of state-making projects in the valleys—slavery, conscription, taxes, corvée labor, epidemics, and warfare.”<sup>2</sup>

Although the Nez Perce in the Pacific Northwest are a world away from the territories of the hill peoples and Southeast Asia, Scott’s work helps us contextualize the story of their interactions with nation-states and global environments. The Nez Perce story forces us to think about what a nation-state is, who belongs to it, and how nature and political culture are linked in dynamic yet inseparable ways. Cross-regional salmon migrations, for instance, help constitute Nez Perce sovereignty and nationalism, which in turn represent influential forces determining how the Nez Perce have dealt with outsiders, including corporations, state governments, and even other nations in an ever-changing political climate. Salmon migrations also help highlight why the Nez

Perce belong in a book about globalization and social and environmental change.

For the Nez Perce, economic, political, and environmental change in the twentieth century has been particularly troubling. The relationship between global, transnational actors and state and nonstate local actors in the form of Nez Perce nationalism is evident in the way state power has been extended with severe ecological impacts on Nez Perce life, particularly through twentieth-century dam building and its impact on migrating salmon. Moreover, the global effects of trade link the exertion of state power to state-sponsored dam building before and after World War II. The increasing lack of state-sponsored controls after World War II and in the twenty-first century expanded globalizing forces through neoliberal economic policies and trade with emerging global economies, such as China. Even the United States since World War II has shifted from sponsoring socialist-oriented dam-building projects that were generally viewed as public works projects for a public good to state-sponsored projects of dam building for the purpose of expanding free-market capitalism and trade, particularly with regard to connecting resources on Nez Perce lands to consumers in East Asia in the decades following the Second World War.

Over the years, a collision between an ecologically based community (that is, not “national”) with the demands of the nation-state for rationalized production and economic development has occurred. While the Nez Perce know they can work through the nation-state to (partially) realize their demands for restoration or compensation, they also realize the difficulty of doing so given the pressures of the global economy. In short, the Nez Perce’s salmon restoration efforts have a social, legal, and economic purpose and are their tools of cultural preservation, environmental preservation, and national definition. Escalating demand for salmon on both sides of Pacific has threatened the species’ very existence and undermined the Nez Perce’s historic claims to salmon.<sup>3</sup> The Nez Perce feel that salmon help define who they are, but their sense of identity can be attacked or reinforced on a number of different levels: local, national, and international.

This chapter first considers how the Nez Perce people developed a stateless, salmon-centric way of life that profoundly shaped the region and the environment. They did so with the building of extensive social relations and the modification of their homeland, and also through the formulation of expansive trade and commerce networks. Tracking Nez Perce historical change presents a new way of understanding cultural and political space and challenges the civilizational discourse of the Western concepts of progress, development, and modernization. Rather, the Nez Perce built their

indigenous society and culture around features of their own tribal cosmology and by the engineering of cultural landscapes since the end of the last Ice Age, and perhaps even before that time.

The question facing the Nez Perce today is more immediate: How do they maintain themselves as a sovereign tribal nation with a salmon-centric culture in light of the dramatic remapping of their homeland? Central to understanding the largest problems facing contemporary Nez Perce is the way the nation-state and global capitalism, working together, have profited enormously from the opening of the Pacific Northwest and by exerting global economic forces on Nez Perce people and resources. The Nez Perce's nature-salmon economy was critical to their ability to exercise a genuine sovereignty consistent with their identity across millennia. This chapter shows that the encroachment of the nation-state and global capital altered, but did not destroy, the connection between migrating salmon and Nez Perce life and culture.

This approach transcends national political boundaries and looks at the historical and ecological connections between humans and the natural world on the global level. It highlights and examines the strategies of the United States government's efforts to settle Nez Perce people and lands and shows how the nation-state achieved their goals, initially through violence, treaty negotiations, and allotment, and later through dam building and the development of a global agricultural empire. Consequently, this chapter draws attention to the political and environmental impacts of development by national and global actors operating on Nez Perce lands, and how this has shaped and continues to shape the natural world and nonhuman migrations of salmon.

### The Organization of Nez Perce Society

The Nez Perce encountered the nation-state and western expansion as a consequence of the Lewis and Clark expedition in 1805. The two parties met on the upper reaches of the Clearwater River in the Bitterroot Mountains of what is today north-central Idaho. Lewis and Clark represented the colonization of the American West through the demarcation of boundaries of state power and trade. They connected the developing nation-state to people and lands via a network of rivers and a swath of diverse territories and cultures that were systematically different from early US settler society.

A snapshot of the Nez Perce homeland and adjacent territories in 1805 would have shown dozens of interactions of autonomous tribes with long histories and great diversity. Anthropologists have shown that the tribes of

the interior Northwest were egalitarian, stateless societies that maintained themselves and their tribal economies by deliberately shaping their environments, including ensuring abundant returns of migrating salmon.

Contemporary Nez Perce culture is therefore rooted in a small-scale, egalitarian, and democratic society that had successfully lived in the Columbia and Snake River drainages for millennia. The Nez Perce organized their society primarily to support and reproduce households while safeguarding the environment. Population densities remained relatively low, and the Nez Perce organized themselves into linguistically affiliated bands, interspersed throughout the region by correlating watersheds, or sub-basins. Prior to contact and colonization, Nez Perce subsistence required deliberate, seasonal migrations and demanded a broad utilization of rich, subsistence resources. In turn, a cultural complex of water, salmon, game, and roots became the ideological and material foundations on which the Nez Perce built their society and economy.<sup>4</sup>

Salmon have not always been a rich and predictable food source. The drainages of the Columbia and Snake Rivers experienced great flooding and climatic change throughout much of history, impacting the predictability of returning salmon. About 10,000 years ago, summers in the region became warm and dry, and winters were unusually cold. This pattern persisted for nearly 4000 years and by about 6000 years ago the Northwest climate gradually cooled and began to offer an optimal environment for people to shape and ensure abundant salmon runs.

There are several theories about how salmon became a primary food source. Many argue that to utilize salmon, indigenous societies must have developed economies that invested in efficient fishing technologies and highly developed social organizations.<sup>5</sup> This system was designed around the harvesting, procurement, and trading of several salmon species. The Nez Perce, for example, developed a complex fishing technology harvesting species of chinook, coho, chum, and sockeye salmon; cutthroat, lake, dolly varden, and steelhead trout; and different varieties of whitefish, sturgeon, suckers, lamprey eels, and pikeminnows. The archaeological record and early ethnographic account supports pre-contact fish consumption for Nez Perce adults at roughly 500 pounds per year.<sup>6</sup>

Ultimately, the Nez Perce use of fish resources led to subsistence intensification, the building of extensive kinship networks, and the formulation of an expansive trade and commerce network of Nez Perce use and intertribal influence.<sup>7</sup> With the addition of the horse around A.D. 1700, the Nez Perce emerged as a powerful tribal entity in the interior Northwest. The Nez Perce were the largest tribal society in the region, with population estimates of nearly 6000 by the contact period in the late eighteenth century.<sup>8</sup> Without doubt,

early Nez Perce society exemplified the smallest-scale condition of indigenous lifeways, but late pre-contact Nez Perce social practices centered on a complex and democratic system of communal housing, food storage, village life, named positions of leadership associated with the redistribution of resources, and encampments of more than 1000 people made up of various aboriginal groups linking the Nez Perce both symbolically and economically with other tribal entities on the Columbia Plateau.

### Contact, Violence, Treaty Negotiations, Allotment

In the Nez Perce homeland, contact meant that a stateless society was caught up in the “play of forces larger and more powerful than themselves.”<sup>9</sup> This interplay among contact, violence, and treaty negotiations, then on to the allotment of Nez Perce lands and, finally, to dam building illustrates Scott’s statement that “the modern state, in both its colonial and its independent guises, has had the resources to realize a project of rule that was a mere glint in the eye of its precolonial ancestor: namely to bring nonstate spaces and people to heel.”<sup>10</sup> By viewing native and nonnative encounters this way, colonization serves to integrate and bring a monied economy to people, lands, and resources on the margins of the nation-state so that they become contributors or *rentable* to foreign exchange and gross national product.<sup>11</sup> Therefore, whenever and wherever it could, the United States, in combination with the global economy, made certain that resources and people were made available for capitalist modes of production and consumption.

Notwithstanding this, Nez Perce interactions with global capitalism began long before dam building, with their active fur trading with the Canadian-based North West Company in the early nineteenth century, resulting in considerable changes to Nez Perce social life and economy. By the early 1800s, fur-trading companies were encouraging Nez Perce men to marry more wives and become “chiefs” to increase the pace at which pelts were trapped, processed, and bought from native producers, and sold for greater profit to nonnative consumers. The fur industry depleted vast populations of beaver and other fur-bearing animals, and by the mid-1840s few animals of value remained in the region. The fur trade brought relative prosperity to a minority of Nez Perce, and trade with the newcomers was in the form of voluntary exchange rather than coercion. While some benefited, however, such encounters were also directly responsible for an unprecedented depopulation of Nez Perce people. Epidemics brought in by nonnative trappers ravaged various Nez Perce villages, and by 1841, population estimates had dwindled to 2000 from the 1805 estimate of 6000.<sup>12</sup>

Many Nez Perce suffered the impact of pandemic disease. In the late eighteenth and early nineteenth centuries, missionaries provided food and medical care to sickly Nez Perce individuals, and in turn were able to successfully convert large numbers of Nez Perce to Christianity. By the 1830s, the Presbyterian missionaries Henry Harmon Spalding and Asa Bowen Smith had established successful missions along the confluence of Lapwai Creek and the Clearwater River and further upstream on the Clearwater River in Kamiah. Moreover, this new form of enclosure prohibited religious converts from engaging in most forms of Nez Perce culture or religion.

In the 1850s, increasing pressure on the US government to acquire Nez Perce land and resources prompted the nation-state to respond with policies of removal and treaty agreements. The treaties codified unequal power in two ways: first, in the domestic undermining of Nez Perce sovereignty and nationality; and, second, in making sure the Nez Perce ceded large amounts of tribal traditional lands to the larger, more powerful US government. They also drew the ungoverned Nez Perce from the periphery into newly formed provincial territories and encouraged them to develop alternative modes of subsistence (i.e., monocrop agriculture). This incorporation meant a radical change to Nez Perce traditional lifeways, impacting their seasonal rounds of fishing, hunting, and foraging. Even so, the Nez Perce notions of the sovereignty and the importance of fish were preserved in the 1855 treaty:

The right of taking fish in all the streams where running through or bordering said reservation is further secured to said Indians; as also the right of taking fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land.<sup>13</sup>

Idaho became a territory in 1863 and US officials ratified the 1855 treaty. With ratification came an extreme reduction in Nez Perce land, reducing the treaty's original boundary of almost 5 million acres to roughly 800,000 acres.<sup>14</sup> Ratification produced a schism within Nez Perce tribal community,<sup>15</sup> pitting pro-Christian tribal members against non-Christian traditional factions. Acculturated forces decisively split the Nez Perce into antagonistic entities. Nez Perce acculturation, however, to some extent changed tribal attachments to natural resources, including land, but attachments to salmon prevailed.

In the meantime, native and nonnative violence continued to escalate, and in 1877 the Nez Perce War was waged by the US Army against the non-treaty bands to "root-out" all the nonacculturated factions of Nez Perce resistance.

Battles were fought at Whitebird near the Salmon River and across the Bitterroot Mountains in the valley of the Big Hole. US military policy was to kill all Indians—including women and children. The war on Nez Perce factions appalled warriors, since traditional warfare strategy never involved the direct killing of civilians. Chief Joseph realized his people could fight no more and surrendered forty miles from the Canadian border at the Bear Paw Battlefield in northern Montana. The survivors of Joseph's band were eventually detained in Oklahoma, where more lives were lost due to the extreme heat of a foreign climate.<sup>16</sup> It was not until 1885 that Chief Joseph and his people were permitted to return to the Pacific Northwest and the Nez Perce homeland and reservation.

With most Nez Perce now confined to reservation life and subject to federal oversight, the US government came up with a highly effective strategy to reduce communally owned reservation land. Designed by federal policy makers, the Dawes Act of 1887 allotted each head of an Indian household 160 acres of land; individuals over eighteen years of age, eighty acres; and those under eighteen, who were mostly orphans, forty acres. The Dawes Act, or "allotment," was a carefully crafted policy aimed at dividing up communally owned land and destroying tribal traditional relations.

During this period Nez Perce populations dropped to an all-time low, making large portions of communally owned reservation land available to non-native individuals. Before 1800, the Nez Perce successfully managed more than 28 million acres of ancestral territory. After the allotment, the Nez Perce received a sum of \$1,626,222 in exchange for roughly 500,000 acres of unallotted land—nearly 75 percent of the reservation. Of the 800,000 acres of reservation land, the Nez Perce were left with a only 204,587 acres, or 27.4 percent of the land base within the reservation.<sup>17</sup> Over the next century, they continued to suffer staggering land losses. By 1975, Indian-owned land on the Nez Perce reservation was down to a meager 80,000 acres. Within only a few generations, Nez Perce land considered too sacred to be bought and sold was mostly in the hands of nonnative individuals and under federal oversight.

What happened to Nez Perce interactions of salmon and water during the nineteenth-century governmental campaigns of contact, treaties, and allotment? To be sure, treaties are documents signed and negotiated between two nations. Thus, one can read these events as negotiations between two nations. On the one hand, the Nez Perce were not easily drawn into the larger nation-state and world economy: the production, consumption, and trade of salmon had remained a primary occupation throughout the nineteenth century, even during allotment. Moreover, the great salmon rivers of Nez Perce ancestral territory remained dam-free throughout the nineteenth and early twentieth

centuries. The challenge facing the Nez Perce throughout much of twentieth century became how to maintain their sovereign status and nationhood, with its salmon-centric culture, in light of the dramatic remapping of their homeland.

### Large Dams as a Global, State-Making Process

The hegemony of large dams came about via a combination of statecraft and the remapping of the Nez Perce homeland by global economic forces. As a consequence, state control over Nez Perce land increasingly led to the control of Nez Perce people. In turn, the abundance of arable farmland in the homeland led to the development of fixed-grain agriculture, and by the 1890s, wheat became the region's most important agricultural commodity.

The story of the cultivation and transportation of wheat, along with the construction of hydroelectric dams, is one of appropriating Nez Perce land and redefining the relationships between salmon migrations and the larger world economy. Monocrop agriculture bound Nez Perce cultivators to monotonous rhythms of long, hard labor. Fishing, on the other hand, involved constant movement alongside migrating salmon. It also created symbolic and material ties to human and animal relationships of antiquity.

Wheat cultivation and large dams transformed the Nez Perce salmon-centric society in profound ways. First, global economic forces and the nation-state converted the Nez Perce reservation from a site of small-scale hunting, fishing, and agrarian enterprise to a large-scale, global agribusiness. Second, large dams were part of a state-making enterprise of controlling rivers, supporting regional populations, and encouraging growth in the global agricultural economy. Dams were an expression of twentieth-century economic growth and represented national defense. Regional and national actors used hydropower to support defense-related industries, supplying ample amounts of energy for the production of aluminum (i.e., Alcoa) and aircraft (i.e., Boeing), and to the Hanford site, a US nuclear-production complex during World War II and the Cold War.

In particular, the key technological changes from small- to large-scale farming involved the replacement of naturally reproducing, self-sufficient farm inputs of human labor and horses with fossil-fuel-powered farm machinery and agricultural chemicals. Factory farming produced higher yields and greater surpluses. From 1910 to 1987 wheat yields in the Nez Perce homeland nearly tripled.<sup>18</sup> Agricultural intensification destroyed more than two-thirds of the small-scale farms and replaced them with fewer and more powerful large-scale farms. Economies of scale resulted in the removal of nearly 14,000 people from



small-scale farming and damaged the economic self-sufficiency and viability of many small towns throughout the Nez Perce reservation.

As a result, the Nez Perce suffered economic disparities produced before and after World War II. Beyond global economic forces, the Nez Perce faced an increasing demographic presence of nonnatives owning and controlling a large majority of reservation land. They lacked the financial muscle to meet the capital-intensive requirements of factory farming. Large-scale agribusiness required the use of fossil fuels and globally manufactured products. The costs of fuel and farm machinery and the increasing use of chemical fertilizers and pesticides were economic impossibilities for most Nez Perce. Strikingly, the Nez Perce reservation consumed virtually no chemical fertilizers or fossil fuels 1910, but those chemicals accounted for 31 percent of all farm inputs thirty years later.

Dams had the second greatest impact on Nez Perce nationalism and salmon. New Deal era dams were designed to meet increasing demands of national defense, hydroelectric production, and agricultural intensification. Before World War II, regional farmers and the transportation industry moved wheat largely by railcar, and before that, by steam-powered river barges. From its inception, wheat production in the Inland Northwest was aimed for global export. Agricultural commodities left the Nez Perce reservation in great quantities, heading in a downriver, westward direction to Portland, Oregon, and from there to global markets (i.e., Great Britain, Japan, and later China). Thus, during the 1860s steam-powered river barges and then railcars transported grain from the Nez Perce homeland to global industrial centers.

The concentration of labor and of political and economic power have enabled the United States to build more than 200 dams and water diversion projects in the drainages of the Columbia and Snake Rivers over the past 150 years of nonnative development. Four dams located on the lower Snake River, adjacent to the Nez Perce reservation and along the lowest reach of the river in southeast Washington, are the primary focus of Nez Perce dam removal policy. The nation-state convinced private and public interests that placing dams on the lower Snake would help meet the growing demands of a maturing world economy and national defense by supplying defense-related contractors and the Hanford Site regional hydropower from Snake and Columbia basin dams. Even so, the lower Snake River is at the heart of the Nez Perce homeland and serves as a bottleneck for all the great salmon-producing rivers of central Idaho, including the Clearwater and Salmon Rivers and the main-stem Snake River, which originates from deep cold-water springs hundreds of miles upriver in the Greater Yellowstone ecosystem. It is not surprising, therefore, that this region is also rich in early archaeological sites, including some dating back

11,500 years. Prior to contact, the Nez Perce claimed the lower Snake River as a central place in their ancestral territory and homeland. It remains a critical source of power and cultural continuity in the maintenance of Nez Perce tribal relations—in part due to the importance of salmon.

Despite the fact that the lower Snake River as a central Nez Perce fishing site and way of life, the nation-state appropriated the necessary funds in 1947 to construct four large dams. This plan required that the US Army Corps of Engineers form the largest construction district in its history.<sup>19</sup> The dams on the lower Snake River merited this project for two important reasons: first, to increase the scale of agricultural commodities by river transportation and, second, to intensify the production of hydropower for consumption by regional homes and businesses and by large-scale industry. Once the dams were built, Lewiston, Idaho, would become a year-round inland seaport. More importantly, agriculture commodities would meet the demands of newly expanding global markets in East Asia, including China.

Beyond growth in the world agricultural economy and regional industry, proponents of dams also touted their use in national defense. Dam supporters launched an aggressive campaign to convince others that hydroelectric dams on the lower Snake River would solve Hanford's growing energy needs.

From the Nez Perce perspective, the dams on the lower Snake River were and are a significant obstacle to sovereignty, treaty rights, and cultural well-being. Since time immemorial the Nez Perce have revered migrating salmon and healthy watersheds as a paramount symbol of their cultural and religious identity. This ancient relationship was built upon three main elements: salmon as food, as an object of trade, and as a necessary component of traditional religious expression. After 1975, the Nez Perce began to push for the removal of all four dams on the lower Snake River. This effort fulfilled a larger campaign based on treaty rights and twentieth-century legal precedents to restore salmon and other endangered fish to the Columbia and Snake Rivers basins. Furthermore, the Treaty of 1855 guaranteed the Nez Perce and other Columbia Basin tribes the "right of taking fish" at their "usual and accustomed" fishing sites. Roughly a century later, in *Washington v. Washington State Commercial Passenger Fishing Vessel Association*, the US Supreme Court ruled that the original treaties entitled Northwest tribes to one-half the total Columbia Basin salmon harvest and approved the use of modern fishing equipment.<sup>20</sup>

Nez Perce policies on salmon are based on the belief that restoring populations to harvestable levels is the best solution to meeting federal treaty obligations and, more importantly, to maintaining tribal identity, culture, and sovereignty. The Nez Perce realize that if harvestable stocks are not restored,

the federal government and US taxpayers may be obligated to compensate the tribes for lost cultural and legal rights to harvest salmon.

More recently, the Nez Perce and other Columbia Basin tribes have refused on religious grounds to estimate an appropriate monetary amount, but the repatriation dollar value may be between \$6 and \$12 billion. Furthermore, the Institute for Fisheries Resources conducted a study in 1996 entitled "The Cost of Doing Nothing" using widely accepted economic methods to calculate a net asset value of \$13 billion for Columbia Basin salmon.<sup>21</sup> Historically, Snake River salmon accounted for half of all salmon in the Columbia Basin. Therefore, a net asset value for salmon in the Snake River Basin has been pegged at \$6.5 billion. Tribal claims of the Nez Perce and others could also include lost land value because, by the late 1800s, Northwest Indian tribes had ceded over 6 million acres of communally managed land to the United States. The Institute for Fisheries Resources attached a value of \$2,000 per acre and estimated that the value of tribal land cessations to be an additional \$12 billion. In short, if harvestable stocks are not restored, the federal government and its taxpayers could be responsible to compensate the tribes for roughly \$23 billion. Compensation ties into a discussion of sovereignty by reinforcing it, and is one of the reasons the Nez Perce continue fighting for sovereign tribal nation status.

In the 1990s, Nez Perce leaders set a legal precedent when they instituted their fight for healthy watersheds, and the Nez Perce Tribe and the federal government "spent \$10 million preparing their water case for trial and will spend an additional \$2 million per year in the years ahead."<sup>22</sup> The two major legal battles facing the Nez Perce Tribe are securing adequate flows of water in the Snake River basin and upholding a duty of fiduciary trust on behalf of the US government. The Nez Perce support free-flowing rivers because, without adequate habitat, salmon and other anadromous fish fail to successfully reproduce and survive. Furthermore, the failure to restore free-flowing rivers demonstrates the federal government has violated its responsibilities as a benevolent guardian of the Nez Perce Tribe. The damming of the Snake River and Columbia River basins disregarded several promises enshrined in the Treaty of 1855. The Nez Perce Tribe has promised that it will if necessary pursue litigation against the federal government for breach of trust. Tribal leaders conclude that the federal Snake River management plan is geared to protect dams and the status quo, rather than salmon. In sum, dams are unacceptable to the Nez Perce Tribe because they violate their 1855 treaty rights and harm migrating salmon.

While these environmental battles are fought in court, the Nez Perce continue to witness the collapse of a once-plentiful salmon fishery. Prior to Euro-American settlement, 10 to 16 million adult salmon entered the river each year.<sup>23</sup> Of those, roughly 8 to 10 million were adult Chinook salmon. In early

summer large runs of eighty-pound Chinook salmon, appropriately named “June hogs” by early Euro-American settlers, would enter the Snake River each year. For countless generations the Nez Perce fished for these giant salmon, but now the June hogs are extinct and have not returned to the rivers of the Nez Perce homeland since the last dam was completed on the lower Snake River in 1975. Moreover, fishery biologists failed to acquire hatchery stocks prior to the total disappearance of June hogs from the Columbia and Snake drainages. In 1993, remaining Chinook salmon counts were at an all-time low. Only 450,000 fish returned to the Columbia River basin, and roughly 250,000, or half of the total run of Chinook salmon, were harvested.

As a result, large sums of money are currently being invested to restore salmon throughout the Pacific Northwest. In the Columbia Basin this has resulted in skyrocketing costs and few tangible results. Well-intentioned fishery managers have relied on hatcheries and fish passage systems to solve the problem of declining salmon brought on by international trade and the politics of US government. However, neither approach is solving the current salmon crisis. A retired Army Corps of Engineers fishery biologist recently stated that roughly 8 to 10 billion dollars has already been spent to improve fish passages on the lower Snake River.<sup>24</sup> A fish screen was put in at McNary Dam to facilitate juvenile salmon returning to the Pacific Ocean. This improvement cost the federal government and US taxpayers roughly 18 million dollars.

Given such data, the key question becomes who benefits from the maintenance and perpetuation of large dams in the Nez Perce homeland? To be sure, the nation-state, individual actors, and private institutions benefit exponentially from the dams, while the majority of the native and nonnative population pays enormous costs in the form of “perverse subsidies.”<sup>25</sup> These subsidies are “perverse” in that economic growth through subsidies harms both the environment and the nonelite majority. Agribusinesses, large-scale industry, electricity-generating corporations, and resource-management institutions receive a federal subsidies with state-sponsored dams and in turn derive exponential sources of revenue and even social power at the expense of migrating salmon and social well-being in the Nez Perce homeland.

Moreover, on the Snake and Columbia Rivers, a transnational river-barge industry continues to transport wheat and other agricultural commodities to global markets. Of the total amount of grain produced on Nez Perce reservation lands by nonindigenous farmers, more than 90 percent is exported from the United States.<sup>26</sup> Those who profit argue that any discussion of dam removal on the lower Snake River must consider that the increased cost of shipping grain by railroad and highway versus river barge would raise the price per bushel of wheat, for example, by 8 percent to 10 percent. Unless the federal government

is willing to cover these costs, farmers will be forced to pay higher prices to ship their commodities to the consumer. Thus, large-scale farmers, a transnational shipping industry, and other agribusinesses that profit enormously from the maintenance of dams on the lower Snake River resist dam removal and, in so doing, resist alternative forms of development in the Nez Perce homeland as well as Nez Perce sovereignty.

In combination with the agricultural economy, several federal agencies, including the Bonneville Power Administration, have an interest in maintaining dams in the Pacific Northwest. Dams on the Columbia and Snake Rivers produce more hydropower than any in other river system in the United States and the world. Since the late 1930s, Bonneville Power Administration has held a monopoly over the sale of energy produced by large dams in the Pacific Northwest. This monopoly, in turn, gives Bonneville Power Administration tremendous power over others, including tribal campaigns of dam removal on the lower Snake River. Furthermore, the transformation of the Nez Perce homeland to a system of large-scale farms, dams, and declining numbers of salmon is an example of how the nation-state, according to Scott, “tames nature” and “gradually gets a handle on its subjects and their environment.”<sup>27</sup>

### Nez Perce Futures

The Nez Perce embrace their salmon-centric culture to ensure a more resilient, alternative future, and they are developing strategies to tackle the long-term effects of more than 200 years of external policies of state-making and global-scale development. Contemporary Nez Perce policies are designed to address environmental issues by solving salmon-related problems, including those historically brought on by dam building and agricultural development in the region as well as those that anticipate the increasing vulnerabilities of global climate change and other environmental disasters. In doing so, the Nez Perce are actively managing resources of great cultural importance at all the “usual and accustomed places” associated with traditional-use areas, both on and off the reservation. The Nez Perce are effectively building a strong sovereign nation and shaping a vigorous future economy.

The primary goal of Nez Perce environmental programs is to restore several species of migratory salmon in the Nez Perce homeland. In collaboration with the Columbia River Inter-Tribal Fish Commission, Nez Perce Fisheries provides scientific, technical, and policy inputs to protect reserved rights of salmon and water in the Columbia River basin. Moreover, the Nez Perce Tribe operates fifteen fish hatcheries, both on and off the reservation, and monitors

the harvest of half the available adult salmon migrating in the Columbia and Snake drainages each year.

The Nez Perce and other Columbia Basin treaty tribes have also provided recommendations for the protection and restoration of all salmon populations listed under the federal Endangered Species Act. Consultation about shared resources between the Columbia River treaty tribes and federal agencies has resulted in federal court mandates and the issuance of biological opinions on the survival and recovery of listed salmon species.

The aim of biological opinions is to ensure that any federal action (i.e., dams on the Snake and Columbia Rivers) is not likely to reduce the survival and recovery of the listed species. The Nez Perce and Columbia Basin treaty tribes therefore generally oppose large dams and other water development projects that negatively affect migrating salmon and water quality.

Water remains a central concern for the Nez Perce. In 2005 the Nez Perce negotiated an agreement between nonnative water users, the Idaho State Senate, and the US Congress in the Snake River Basin Adjudication—a water rights case initiated in 1986 to settle more than 150,000 outstanding claims to water in the Snake River drainage. The Nez Perce Tribe, in return, drew from its cultural connections to salmon and water and formed an agreement under which the Bureau of Reclamation may lease up to 427,000 acre feet of water from the state to increase flow in the Snake River drainage and help endangered salmon. Additional water in the Snake River facilitates salmon migrations and improves Nez Perce fish and habitat projects.

Even so, the greatest vulnerability to both salmon and people in the twenty-first century stems from the projected impacts of global environmental change, including global warming (i.e., climate change). In the Pacific Northwest, the Nez Perce and other native nations are reacting to climate change by adopting novel and innovative policies while simultaneously asserting tribal sovereignty.<sup>28</sup> First, adjudicating water rights for salmon is a powerful tool in a modern reality of increasing demands and declining supplies. Second, the federal Endangered Species Act is a valuable legal framework for the Nez Perce and other native nations aiming to protect salmon populations. Additional legal structures, such as contract law, may provide another means by which to secure in-stream flows for migrating salmon. Furthermore, in the spirit of protecting salmon, the Nez Perce and other tribes are implementing policies to designate off-reservation landholdings as federally protected National Parks, National Monuments, and Wild and Scenic Rivers.

Intergovernmental and intertribal cooperation has resulted in the Nez Perce and other tribes participating in the co-management of salmon-based resources through the Columbia River Inter-Tribal Fish Commission and other

collaborations with such federal agencies as the National Oceanographic and Atmospheric Administration and the National Fish and Wildlife Service. In salmon restoration, these partnerships are effective in co-managing hatchery programs and in developing long-range management strategies of problems at the nexus of the nation-state and environmental problems. The Nez Perce, for example, have developed and implemented strong policies on future dams and related irrigation projects, have lobbied to enforce dam operators to release more water when needed to improve fish passage, and, when necessary, have litigated for the decommissioning of dams as a measure of last resort.

To counteract climate change, the Nez Perce tribe has committed to twenty-nine forest-restoration projects and set aside nearly 5000 acres for carbon sequestration as a means to have forestry and reforestation practices remove carbon dioxide from the atmosphere. Tribal efforts to plant Douglas fir and ponderosa pine saplings are projected to absorb a year's worth of carbon dioxide from nearly 500,000 cars, trucks, and SUVs.<sup>29</sup> The Nez Perce tribal government also aims to have corporations offset their greenhouse gas emissions by paying the Nez Perce to keep trees growing and for forests to remain intact. Few American companies are presently mandated to curb greenhouse emissions with carbon sequestrations. The Nez Perce efforts are models of the value in keeping forests alive, thus providing integrity to salmon watersheds and critical habitat.

### Regional and Global Socio-Environmental Change

Salmon and water lie at the heart of the Nez Perce homeland, characterized by its spectacular forests, abrupt topographical changes, and freshwater resources. Continued stress, however, from more than two centuries of commercial growth in the present global economy, and the projected impacts of global climate change, presents the Nez Perce with urgent and challenging problems. The Nez Perce know that their response to such problems will influence both salmon stocks and their own survival in an uncertain and unknown future.

The Pacific Northwest presently has 10 million inhabitants—three orders of magnitude greater than the total native population in was in 1750.<sup>30</sup> By the late nineteenth century the immigrant population exceeded the indigenous population, and by the early twentieth century the total population of the region was more than one million people. Before World War II, economic expansion and population growth fueled state-expansionist projects to build large dams in the Columbia basin. After World War II per-capita energy consumption in the Pacific Northwest increased dramatically, with the regional economy nearly doubling between 1985 and 2003.

Two centuries of state-sponsored commercial growth degraded ecosystems, diminished the opportunities for many small-scale ranching, farming, and forest-based communities and partially destroyed the great Columbia River salmon fishery.<sup>31</sup> Moreover, massive change in historic ecosystems has removed from 80 percent to 90 percent of the old growth coniferous forests in the Nez Perce homeland, and timber cutting, grazing, and fire suppression have made the remaining forests prone to disease and fire. Ninety percent of the sagebrush steppe in the Inland Northwest and 99 percent of the Palouse Prairie steppe, a unique grassland ecosystem in the heart of Nez Perce ancestral territory, have been removed, mostly for urban and agricultural development. In addition to the looming extinction of salmon, dramatic environmental changes in native habitat have led to the extinction of fourteen bird and mammal species from Washington and Oregon, and Oregon lists forty-two additional mammals and birds and as “species of concern.”<sup>32</sup> In coming decades the social and environmental sustainability of the entire region will be further challenged by the combined effects of population growth, large-scale development, and the projected impacts of global climate change.<sup>33</sup>

For the Nez Perce, salmon ecosystems define cosmology, labor, energy, and economy. Salmon link biodiversity and productivity because salmon store in their bodies and transport and move “materials, and energy and nutrients between marine, aquatic, and terrestrial ecosystems.”<sup>34</sup> Historically, spawning salmon transported more than 100 million kilograms of energy and materials from marine to terrestrial ecosystems (10 to 16 million fish) annually in the Columbia River basin, making it the world’s richest inland fishery.<sup>35</sup> Before the arrival of European-American settlers, these rich ecosystems supported some 200,000 indigenous peoples diversified into forty-seven cultural sub-areas and representing eleven language families.<sup>36</sup> Factoring in the impact of European disease, the pre-contact population may have been twice this size.<sup>37</sup> As the indigenous population declined, so did the salmon. Columbia Basin salmon runs measure 20 percent of their historic levels of 10 to 16 million before 1805, with as few as 200,000 fish returning annually.<sup>38</sup> The current decline in Columbia Basin salmon—and the Nez Perce population—can be attributed to the impacts by hydroelectric dams, irrigation projects, and overall habitat loss.<sup>39</sup> Saving one may be a way to preserve another.

How will global climate change affect salmon and in turn a salmon-centric Nez Perce culture? Climate change in the Columbia and Snake Rivers is projected to redistribute stream flows and reduce the amount of annual freshwater cycling.<sup>40</sup> Sharp variations in water are affected by the reduction in annual snow pack.<sup>41</sup> Pacific Northwest average annual air temperatures warmed by between .7 and .9 degrees Celsius in the twentieth century, and climate models suggest



that additional increases from 1.5 and 3.2 degrees Celsius will occur by the mid-twenty-first century.<sup>42</sup> These higher air temperatures could harm salmon during spawning, incubation, and rearing stages of their life. Warmer temperatures create earlier snowmelt and less moisture falling as snow. Increases in rain versus snow will lead to increased winter peak flows that scour stream and riverbeds and obliterate salmon eggs. A reduction in snow pack results in diminished flows in summer and fall, decreasing the availability of suitable spawning habitat and expediting increases in water temperatures.

Little is known about the ability of salmon to adjust to global climate change. The negative effects of climate change are projected to be most pronounced in the higher and more pristine tributaries of major river systems. In the Nez Perce homeland, rivers and streams are markedly cooler and higher, and they provide a more suitable habitat for spawning salmon than warmer, lower-elevation streams further downstream in the lower Columbia River basin. Perturbations in climate and increases in average temperatures will likely challenge the remaining salmon stocks in the next 50 to 100 years. Recent research in the Pacific Northwest on chinook salmon populations suggests declines between 20 percent and 40 percent by 2050.<sup>43</sup> The Nez Perce and other Columbia Basin tribes depend on chinook salmon for their large size and high fat content. A significant decline in chinook salmon and other fishes threatens Nez Perce's future food security and salmon-centric, autonomous culture.

## Conclusion

First, it is critical to consider how migrating salmon have shaped the history of an entire region and how a rapidly expanding global economy altered but did not destroy the relationship between salmon-centric environments and Nez Perce life and culture. The United States made every effort to make subjects out of the Nez Perce and to convert and utilize their homeland for the expansion of the global economy. The Nez Perce, recognizing the human right to cultural expression and survival, exercised genuine sovereignty in both historical and modern contexts, in spite of state-sponsored efforts to bring them and valuable resources under firm control.

Second, it is critical to connect the hegemony of large dams and a global agricultural economy and economic growth in the twenty-first century. China is the newest actor in this regard. The recent growth of China's economy and the renewed importance of Snake and Columbia dams as shipment corridors links the two powerful, global economies for some time into the future. Nearly

ten years ago, in 2004, the *Seattle Post-Intelligencer* reported, “Already this year, China has accepted 1.8 million metric tons of US wheat—nearly 17 times as much as all of last year. And about 60 percent of it was funneled through Columbia River ports. For the first time in 30 years, China has entered the Pacific Northwest wheat market on a dramatic scale.”<sup>44</sup>

Larger structural changes shape this trend, too. China has a substantial wheat economy, but internal demands of rapid urbanization and an increasing affluent population has encouraged China to import more wheat than any other country in the world. China’s wheat imports account for roughly 10 percent to 15 percent of the world trade.<sup>45</sup> Beyond affluence and consumption, China has decreasing farmlands and increasing problems associated with drought and water shortages. Without doubt, the magnitude of China’s environmental and economic disasters associated with food production is staggering.

China, in turn, has become the newest consumer of Nez Perce wheat. Transnational shipping industries move wheat by river barge through dams to international shipping ports in Portland, Oregon. From there, Hanjin Shipping, among other large shipping companies, transport Northwest wheat to East Asian consumers. China, in the present century with its unprecedented growth and consumer demand has enormous political and environmental impact on Nez Perce cultural and natural resources. Development by national and global actors therefore shapes and informs the future of dams and salmon-related resources and the sustainability of the Pacific Northwest region.

Furthermore, transnational actors at both local and global levels have greatly challenged Nez Perce nationalism and sovereignty with the dramatic remapping of their homeland. For most of their existence the Nez Perce avoided living in a world in which stratification and development were the norm. Rather, their social structure encouraged subsistence routines that maximized well-being and freedom for the largest numbers of people. They lived in a homeland that, until 200 years ago, was out of the reach of state intervention. Considering the size of the tribe, the Nez Perce have been remarkably successful in resisting full encroachment of the nation-state and global capital by not allowing transnational forces to completely alter or destroy their connections to migrating fish and their salmon-centric way of life.

#### NOTES

1. James C. Scott, *The Art of Not Being Governed* (New Haven, CT: Yale University Press, 2009), x.
2. *Ibid.*, ix.
3. Benedict J. Colombi and James F. Brooks, *Keystone Nations: Indigenous Peoples and Salmon across the North Pacific* (Santa Fe: School for Advanced Research Press, 2012).

4. Allan Gould Marshall, "Fish, Water, and Nez Perce Life," *Idaho Law Review* 42 (2006): 763–93.

5. Gordon W. Hewes, "Indian Fisheries Productivity in Pre-contact Times in the Pacific Salmon Area," *Northwest Anthropological Research Notes* 7 (1973): 133–55; Schalk, Randall F. "Structure of an Anadromous Fish Resource," in *For Theory Building in Archaeology*, ed. Lewis R. Binford (New York: Academic Press, 1977), 207–49; Deward E. Walker, Jr., "Mutual Cross-Utilization of Economic Resources in the Plateau: An Example from Aboriginal Nez Perce Fishing Practices," in *Report of Investigations* (Pullman: Washington State University Laboratory of Anthropology, 1967), no. 41.

6. Hewes, "Indian Fishery"; Walker, "Mutual Cross-Utilization."

7. Alan Gould Marshall, "Unusual Gardens: The Nez Perce and Wild Horticulture on the Eastern Columbia Plateau," in *Northwest Lands, Northwest Peoples: Readings in Environmental History*, ed. Dale D. Goble and Paul W. Hirt (Seattle: University of Washington Press, 1999), 173–87.

8. Deward E. Walker, Jr., "Nez Perce," in *Handbook of North American Indians*, ed. Deward E. Walker, Jr. (Washington, DC: Smithsonian Institution, 1998), 420–38.

9. John W. Cole and Eric R. Wolf, *The Hidden Frontier: Ecology and Ethnicity in an Alpine Valley* (New York: Academic Press, 1974), 1.

10. Scott, *Art of Not Being Governed*, 4.

11. *Ibid.*

12. Walker, "Nez Perce."

13. Horace Axtell, et al., *Treaties: Nez Perce Perspectives* (Lewiston, Idaho: Confluence Press, 2003), 117.

14. Archie Phinney, "Numipu among the White Settlers" *Wicazo Sa Review* 17 (2002): 21–42.

15. Deward E. Walker, Jr., *Conflict and Schism in Nez Perce Acculturation: A Study of Religion and Politics* (Pullman: Washington State University Press, 1968).

16. J. Diane Pearson, *The Nez Percés in the Indian Territory: Nimiipuu Survival* (Norman: University of Oklahoma Press, 2008).

17. Emily Greenwald, *Reconfiguring the Reservation: The Nez Percés, Jicarilla Apaches, and the Dawes Act* (Albuquerque: University of New Mexico Press, 2002).

18. John H. Bodley, *The Power of Scale: A Global History Approach* (New York: M. E. Sharpe, 2003).

19. Keith C. Petersen, *River of Life, Channel of Death: Fish and Dams on the Lower Snake* (Lewiston, Idaho: Confluence Press, 1995).

20. Charles F. Wilkinson, *American Indians, Time, and the Law: Native Societies in a Modern Constitutional Democracy* (New Haven, CT: Yale University Press, 1987), 73.

21. Hans D. Radtke and Shannon W. Davis, *The Cost of Doing Nothing: The Economic Burden of Salmon Declines in the Columbia River Basin* (Eugene, OR: Institute for Fisheries Resources, 1996).

22. Daniel McCool, *Native Waters: Contemporary Indian Water Settlements and the Second Treaty Era* (Tucson: University of Arizona Press, 2002), 79.

23. Jim Lichatowich, *Salmon without Rivers: A History of the Pacific Salmon Crises* (Washington, DC: Island Press, 1999).

24. Conversations with the author, April 25, 2003.
25. Norman Myers and Jennifer Kent, *Perverse Subsidies: How Tax Dollars Harm the Environment and the Economy* (Washington, DC: Island Press, 2001).
26. Benedict J. Colombi, "Dammed in Region Six: The Nez Perce Tribe, Agricultural Development, and the Inequality of Scale" *American Indian Quarterly* 29 (2005): 560–89.
27. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT: Yale University Press, 1998).
28. Jonathan M. Hanna, "Native Communities and Climate Change: Protecting Tribal Resources as Part of National Climate Policy," in report published by the Natural Resources Law Center (Boulder: Colorado Law School, University of Colorado, 2007).
29. Joshua Zaffos, "Tribes Look to Cash in with 'Tree-Market' Environmentalism," *High Country News* 13 (2006): 5.
30. John H. Bodley, "Scale, Power, and Sustainability in the Pacific Northwest," paper presented at the annual meeting for the Society for Applied Anthropology, Vancouver, British Columbia, March 27, 2006.
31. Xanthippe Augerot, *Atlas of Pacific Salmon: The First Map-Based Status Assessment of Salmon in the North Pacific* (Berkeley: University of California Press, 2005).
32. Constance Iten et al., "Extirpated Species of Oregon and Washington," in *Wildlife-Habitat Relationships in Oregon and Washington*, ed. David H. Johnson and Thomas A. O'Neill (Corvallis: Oregon State University, 2001), 452–73.
33. Edward A. Parson et al., "Potential Consequences of Climate Variability and Change for the Pacific Northwest," in *Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change*, ed. National Assessment Synthesis Team, U.S. Global Change Research Program (Cambridge: Cambridge University Press, 2001), 247–80.
34. Jeff C. Cederholm et al., "Salmon and Wildlife-Ecological Contexts, Relationships, and Implications for Management," in *Wildlife-Habitat Relationships in Oregon and Washington*, ed. David H. Johnson and Thomas A. O'Neil (Corvallis: Oregon State University Press, 2001), 628–84.
35. Lichatowich, *Salmon without Rivers*, 180.
36. Alfred L. Kroeber, *Cultural and Natural Areas of Native North America* (Berkeley: University of California Press, 1939).
37. Robert T. Boyd, "The Introduction of Infectious Diseases among the Indians of the Pacific Northwest 1774–1874," PhD diss., University of Washington, 1985, 324–413.
38. Augerot, *Atlas of Pacific Salmon*, 2.
39. Michael Blumm, *Sacrificing the Salmon: A Legal and Policy History of the Decline of Columbia Basin Salmon* (Den Bosch, Netherlands: BookWorld Publications, 2002); Lichatowich, *Salmon without Rivers*.
40. Edward A. Parson et al., "Potential Consequences of Climate Variability and Change for the Pacific Northwest," in *Climate Change Impacts on the United States:*

*The Potential Consequences of Climate Variability and Change*, ed. National Assessment Synthesis Team, U.S. Global Change Research Program (Cambridge: Cambridge University Press, 2001), 247–80.

41. Philip W. Mote et al., “Preparing for Climatic Change: The Water, Salmon, and Forests of the Pacific Northwest.” *Climatic Change* 61 (2003): 45–88.

42. James Battin et al., “Projected Impacts of Climate Change on Salmon Habitat Restoration,” *Proceedings of the National Academy of Sciences of the United States of America* 104 (2007): 6720–5.

43. Ibid.

44. Brad Wong, “State Wheat Supply in Demand: China’s Appetite for Grain Could Be Northwest’s Gain,” *Seattle Post-Intelligencer Reporter*, November 23, 2004.

45. Jikun Huang et al., “China’s Food Economy to the Twenty-First Century: Supply, Demand, and Trade,” *Economic Development and Cultural Change* 47 (1999): 737–66.