

DANCES WITH MYTHS



Half-truths about American Indians' environmental ethic obscure the rational ways in which they have lived with and shaped the natural world.

by Terry L. Anderson

Hollywood images and romantic environmentalism would have us see American Indians as so in harmony with nature they left no mark on it. A Sierra Club book about forestry claims, "For many thousands of years, most of the indigenous nations on this continent practiced a philosophy of protection first and use second of the forest." According to former Secretary of the Interior Stewart Udall, "The Indians

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were, in truth, the pioneer ecologists of this country." Calling for an environmental ethic patterned after that of Native Americans, Sen. John H. Chafee (R-R.I.) quoted words allegedly spoken by 19th-century Indian Chief Seattle: "Man did not weave the web of life. He is merely a strand of it."

This image of a Native American environmental ethic, however appealing, is more myth than reality. The actual history of Native American resource use does not always mesh with the spiritual environmental ethos attributed to them. By focusing on myth instead of reality, environmentalists patronize American Indians and neglect the lessons of their rich institutional heritage encouraging resource conservation.

The impression that American Indians were guided by a unique environmental ethic often can be traced to the speech widely attributed to Chief Seattle in 1854. But Chief Seattle never said those oft-quoted words. They were written by Ted Perry, a scriptwriter, who acknowledged paraphrasing a translation of the speech for a movie about pollution. According to historian Paul Wilson, Perry's version added "a good deal more, particularly modern ecological imagery." For example, Perry, not Chief Seattle, wrote that "every part of the Earth is sacred to my people." (Perry, by the way, has tried unsuccessfully to get the truth out.)

The speech reflects what many environmentalists want to hear, not what Chief Seattle said. The poignant and romantic image created by the speech obscures the fact, fully acknowledged by historians, that American Indians transformed the North American landscape. Sometimes these changes were beneficial, at other times harmful. But they were almost always a rational response to abundance or scarcity.

For example, where land was abundant, it made sense to farm extensively and move on. Indians would commonly clear land for farming by cutting and burning forests. After clearing, they would farm the fields extensively until they depleted soil fertility; then the Indians would clear new lands and start the process again. From New England to the Southwest, wherever Indian populations were dense and farming was intense, deforestation was common. Indeed, the mysterious departure of the Anasazi from the canyons of southeastern Utah in the 13th century may have been due to their having depleted the wood supplies they used for fuel.

Similarly, where game was plentiful, Indians used only the

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choicest cuts and left the rest. When the buffalo hunting tribes on the Great Plains herded hundreds of animals over cliffs in the 18th and early 19th centuries, tons of meat were left to rot or to be eaten by scavengers—hardly a result consistent with the environmental ethic attributed to Indians. Samuel Hearne, a fur trader near Hudson's Bay, recorded in his journal in the 1770s that the Chipewyan Indians would slaughter large numbers of caribou and musk ox, eat only a few tongues, and leave the rest to rot.

Indians also manipulated the land to improve hunting. Upland wooded areas from east to west were burned to remove the undergrowth and increase forage for deer, elk, and bison. Indeed, because of this burning, it's possible that fewer "old growth" forests existed in the Pacific Northwest when the first Europeans arrived than exist today. In some cases, however, the improvements sought by burning were short term, because anthropogenic fire altered the succession of forests. In the Southeast, for example, oak and hickory forests with a higher carrying capacity for deer were displaced by fire-resistant longleaf pine that support

only limited wildlife. Biologist Charles Kay concludes that "Native Americans were the ultimate keystone species, and their removal has completely altered ecosystems, not only in the Intermountain West but throughout North America."

Generally the demand for meat, hides, and furs by relatively small, dispersed populations of Indians put little pressure on wildlife. But in some cases game populations were overharvested or even driven to extinction. Anthropologist Paul Martin believes that the extinction of the mammoth, mastodon, ground sloth, and the saber-toothed cat directly or indirectly resulted from the "prehistoric overkill" by exceptionally competent hunters.

Historian Louis S. Warren drives the final nail in the coffin of the "living in harmony with nature" myth: "[T]o claim that Indians lived without affecting nature is akin to saying that they lived without touching anything, that they were a people without history. Indians often manipulated their local environments, and while they usually had far less impact on their environments than European colonists would, the idea of 'preserving' land in some kind of wilderness state would have struck them as impractical and absurd. More often than not, Indians profoundly shaped the ecosystems around them."

Of course, shaping doesn't have to mean despoiling. Whether this shaping encouraged conservation depended, for Indians as for humans everywhere, on the incentives created by the extant system of property rights. The historical American Indians did not practice a sort of environmental communism in tune with the Earth; yesterday, as today, they recognized property rights.

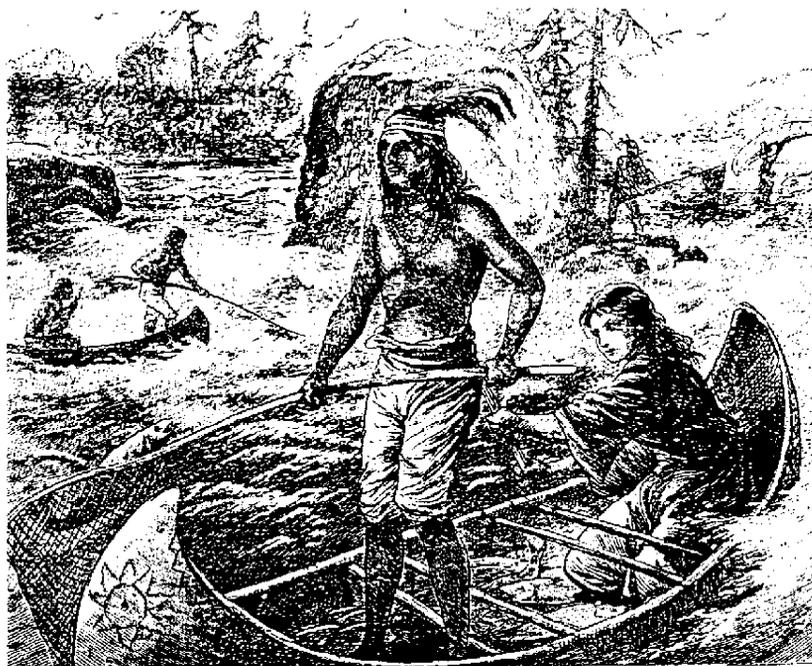
Today we refer to "Indian nations," but this term mostly reflects the U.S. government's desire to have another government with which to negotiate. In fact, Indian tribes were mainly language groups made up of relatively independent bands with little centralized control except at specific times when they might gather for ceremonies, hunts, or wars. And after the horse allowed small bands to efficiently hunt buffalo, even that level of centralization diminished.

Just because Indians lacked modern concepts of government doesn't mean they lacked rules. American Indian tribes produced and sustained abundant wealth because they had clear property rights to land, fishing and hunting territories, and personal property. Pre-Columbian Indian history is replete with examples of property rights conditioning humans' relations with the natural environment.

Where land was scarce and making it productive required investments, private ownership by family units was common. Families among the Mahican Indians in the Northeast possessed hereditary rights to use well-defined tracts of garden land along the rivers. Europeans recognized this ownership, and deeds of white settlers indicate that they usually approached lineage leaders to purchase this land. Before European contact, other Indian tribes recognized Mahican ownership of these lands by not trespassing.

In the Southeast and the Southwest, private ownership of land was also common. "The Creek town is typical of the economic and social life of the populous tribes of the Southeast," writes historian Angie Debo. "[E]ach family gathered the produce of its own plot and placed it in its own storehouse. Each also contributed voluntarily to a public store which was kept in a large building in the field and was used under the direction of the town chief for public needs." The Havasupai and Hopi also recognized private ownership of farmland as long as it remained in use. Clans identified their fields with boundary stones at each corner with their symbols painted on them.

Fruit and nut trees that required long-term investment and care were privately owned and even inherited. In one case a Northern Paiute Indian reflected that his father "paid a horse for a certain piñon-nut range," suggesting that the property rights were valuable and could be traded. Among Indians in California, families owned piñon, mesquite, screw-bean trees, and



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a few wild-seed patches, with ownership marked by lines of rocks along the boundaries. Though owners would sometimes allow others to gather food during times of abundance, trespass was not tolerated. John Muir, founder of the Sierra Club, even reports that the owner of a piñon tree killed a white man for felling his tree.

Throughout North America, Indians dependent on hunting and fishing had well-defined territories within which they practiced wildlife conservation. Hunting groups among the Montagnais-Naskapi of Quebec between Hudson Bay and the Gulf of St. Lawrence recognized family and clan hunting areas, particularly for beaver when it became an important trade item. Quoting Indian informants, anthropologists Frank Speck and Wendell Hadlock report that, for New Brunswick, "It was... an established 'rule that when a hunter worked a territory no other would knowingly or willfully encroach upon the region for several generations.' Some of the men held districts which had been hunted by their fathers, and presumably their grandfathers." They even had a colloquial term that translates to "my hunting ground." The Algonkian Indians from the Atlantic to the Great Lakes also had family hunting territories that passed from generation to generation. In these tracts, families sustained harvestable game populations by deliberate rotation systems. The Paiute Indians of the Owens Valley in California hunted together in groups with well-defined territories bounded by mountains, ridges, and streams. Distinct Apache bands had their own hunting grounds and seldom encroached on other territories.

In the Pacific Northwest, Indians had well-defined rights to spawning streams. To capture salmon returning from the ocean

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The White Mountain Apache of east-central Arizona have shown what can happen if you pay attention to incentives. This tribe is managing its trophy elk population and other wildlife opportunities on a sustainable basis—and making a profit. From 1977 to 1995, nontribal hunters have bagged 90 bull elk that made record books.

to spawn in freshwater streams, they placed fish wheels, weirs, and other fixed appliances at falls or shoals where the fish were naturally channeled. The Indians' technology was so efficient they could have depleted salmon stocks, but they realized the importance of allowing some of the spawning fish to escape upstream.

Relying on salmon as their main source of food, then, the coastal Tlingit and Haida Indians established clan rights to fishing locations where salmon congregated on their journey to spawning beds. (They also had rights to bear and goat hunting areas, berry and root patches, hot springs, sea otter grounds, seal and sea lion rocks, shellfish beds, cedar stands, and even trade routes.) The management units could exclude other clans or houses from their fishing territories. Management decisions were generally made by the yitsati, or "keeper of the house," who had the power to make and enforce decisions regarding harvest levels, escapement, fishing seasons, and harvest methods.

Indian salmon fishing rights stand in sharp contrast to the white man's law that supplanted them. When Europeans arrived on the Columbia River, they ignored Indian rights and simply placed their nets at the mouths of rivers, leaving no fish to spawn. To counter the overfishing, nets were outlawed at the beginning of the 20th century and ever since, fishermen have been encouraged to chase salmon around the open ocean in expensive boats equipped with sophisticated gear. The result is what economic historian Robert Higgs has called the "legally induced techni-

cal regress in the Washington salmon fishery."

Private ownership encouraged investment and production in personal property as well. The tepee of the Plains Indians, for example, was owned by the woman who might spend weeks or months collecting, scraping, tanning, and sewing together eight to 20 buffalo hides for the completed shelter. Time spent chipping arrowheads, constructing bows and arrows, and weaving baskets was rewarded with private ownership of the completed capital equipment.

The horse was the most vivid example of the benefits of private ownership to the American Indian. Acquired by Plains Indians in the latter half of the 18th century, the horse offered them a life of abundance. With the horse they could follow the vast buffalo herds and ride into the herd to harvest as many animals as they wanted. The horse became one of the Indian's most important sources of wealth. In Canada in the early 1800s, a buffalo horse cost more than 10 guns—a price far higher than any other tribal possession. A turn-of-the-century account of a wealthy Blackfoot man describes it as a "fine sight to see one of those big men among the Blackfeet, who has two or

three lodges, five or six wives, twenty or thirty children, and fifty to a hundred horses; for his trade amounts to upward of \$2,000 a year." Converting this amount to current dollars, such a man had an annual income of approximately \$500,000.

Just as private ownership encouraged resource conservation, positive rewards encouraged investment in human and physical capital. In the case of rabbit hunts, which required leadership skills and nets for catching the rabbits, the leader and owner of the net garnered a larger share of the catch.

For hunting larger game with bow and arrow, not only did the archer have to spend hours chipping arrowheads, making arrows, and constructing his bow, he had to perfect his shooting and riding skills. The proficient hunter was rewarded for his investment with the buffalo's skin and the choicest cuts of meat. To establish his claim on an animal, the archer marked his arrows with distinctive symbols. Those without horses or without riding and shooting skills assisted in the butchering and thereby earned a right to lower cuts. The Omaha tribe developed an elaborate nomenclature to describe rewards for those who killed and butchered buffalo.

In sum, faced with the reality of scarcity, Indians understood the importance of incentives and built their societies around institutions that encouraged good human and natural resource stewardship. Though ethics and spiritual values may have inculcated a respect for nature, more than mysticism encouraged conservation of scarce resources. Rather, an elaborate set of social institutions that today would be called private property rights

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discouraged irresponsible behavior and rewarded stewardship. As historian Louis Warren puts it, "Among other things, Indian history is a tale of constant innovation and change.... If there is a single, characteristic Indian experience of the environment, perhaps it is the ability to change lifeways in radical fashion to maintain culture and identity."

Unfortunately, this historic innovation and adaptation have been lost today in a morass of bureaucratic controls emanating from Washington. Throughout Indian reservations, especially in the West, Indians control abundant natural resource and environmental amenities that could be better managed if tribes would return to their rich heritage of positive rewards for good stewardship instead of relying on romantic world views promoted by non-Indian environmentalists.

Wildlife management on Indian reservations offers a distinct contrast between lessons lost and lessons learned from the history of Indian culture and institutions. In many respects, Indians on reservations have tremendous resources. Relying on treaties signed in the 19th century, courts have granted Indians sovereign rights to fish and wildlife, both on and off reservations. Indians have rights to half the harvestable salmon and steelhead in the Pacific Northwest. They may use gillnets not available to non-Indian fishers in the Great Lakes. They may hunt walrus and polar bears without regulation by the state of Alaska. In Wisconsin, they have special hunting privileges on public lands, including an 85-day deer season and the right to hunt from vehicles.

On most reservations, however, wildlife managers have lost sight of the value of the sort of private property institutions Indians used to rely on. Modern reservations are often a wildlife "commons" where ownership is only established by killing animals. Often, that policy results in the decimation of wildlife populations. Indian gillnetting for salmon on the West Coast has wiped out major runs of salmon on the Klamath/Trinity river system. An Alaska Fish and Game Department report documented one case of 214 caribou carcasses left to rot and "counted 24 caribou left whole—there was a snow machine track to each one.... Most had been there a considerable time."

On most western reservations, big game species are almost nonexistent despite excellent potential habitat. On the Crow Reservation in Montana, for example, very few big game animals

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such as deer and elk remain. According to a tribal wildlife official, non-Indians are not allowed to hunt on the reservation, but tribal members can hunt all year without limits. The few big game animals there are wander in from outside; they are not managed on a sustainable basis.

Outdoor writer Ted Williams describes what happens when wildlife belongs to everyone until it is harvested: "Over the past 25 years Shoshones and Arapahoes, equipped with snowmobiles, ATV's and high-powered rifles, have virtually wiped out elk, deer, moose and bighorns on the 2.2 million-acre Wind River Reservation in Wyoming. Repeated motions for modest self-regulation emanating from within the reservation have been defeated by vote of the tribal leaders.... [I]n one confined area 31 dead elk were found. In another, a retired Indian game warden mowed down an entire herd of 14. Meat piled up at local dumps. Antlers were exported to the Orient where antlers and horns are ground to a powder and hawked as an aphrodisiac."

The White Mountain Apache of east-central Arizona, by contrast, have

shown what can happen in Indian country if you pay attention to incentives. This tribe is managing its trophy elk population and other wildlife opportunities on a sustainable basis—and making a profit. The Fort Apache Reservation covers 1.6 million acres—diverse habitat ranging from oak chaparral at lower elevations to mixed coniferous forests at the heights. This habitat supports about 12,000 free-ranging elk.

To get some idea of the success elk hunters enjoy, consider the reservation's track record. From 1977 to 1995, nontribal hunters have bagged 90 bull elk that made either Boone and Crockett or Safari Club record books. In comparison, this is about the same number of record elk taken from the entire state of Montana since record keeping began in 1932. Since 1980, nontribal hunters have enjoyed a 90 to 95 percent success rate. The average score for antlers has been 366 Boone and Crockett points. Such scores are the equivalent of a foursome averaging three under par for a round of golf.

The White Mountain Apaches have a large resource base, prime habitat and, according to reservation biologists, an elk herd whose genetics are ideal for producing trophy elk. But entrepreneurship and incentives have played a pivotal role on Fort Apache.



Before 1977, elk hunting on the reservation was better than on nearby national forest lands, but nowhere near its quality today. At that time, the state of Arizona issued about 700 nontribal hunting licenses, priced at \$150 each, for hunting on the reservation. The state permits were required in addition to a tribal license, but the tribe received none of the revenue collected by the state. Each license entitled the bearer to shoot a bull elk regardless of size. Typical of state agencies, this policy maximized the number of hunter opportunities rather than the value of the hunt.

Fortunately for both the tribe and the elk, tribal leaders decided that they could capitalize on the market for trophy elk. In 1977, tribal Chairman Ronnie Lupe, with the backing of the 11-member tribal council, informed the state that the tribe would allow elk hunting without a state permit and would control all hunting and fishing on the reservation. The state opposed this but eventually acquiesced after a federal court decision.

The tribe's first order of business was to reduce the hunting pressure on immature bulls by ending the general elk hunt and replacing it with the trophy elk hunt. Elk hunting permits were reduced dramatically from 700 under state management to 30, and the price per permit was increased from \$150 to \$1,500. Revenue from the sale of these reservation permits went to the tribe's general fund.

The trophy elk hunting program blossomed. Mature bulls as a percentage of all bulls increased to 73 percent, and the number of record-book elk taken increased from three in the final six years of state management to eight per season. In addition to promoting trophy elk production, the tribe also designed a fine hunting experience, free from the crowded conditions on public lands.

The tribe tapped into the mother lode of hunter demand. In 1995, revenue from trophy elk hunting totaled well over \$850,000. Sixty-six hunters paid \$12,000 each for a seven-day trophy hunt. A special auction for four additional openings was also held, with an average winning bid of \$24,000 and a high bid of \$30,000. In spite of the \$12,000 price tag, there is a five-year waiting list of hunters.

Less-expensive hunting opportunities exist too. These offer a way to maintain the proper bull-to-cow ratio in the herd and to manage other wildlife species. For example, the tribe periodically issues 100 antlerless permits priced at \$300 each, which have

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a hunter success rate of 80 percent. The tribe also offers hunting permits for bear (\$150), javelina (\$75), and wild turkey (\$750). It costs \$50 per season or \$5.00 per day to hunt quail, squirrel, and cottontail rabbits.

In addition to hunting, the tribe manages other resources for amenity values and collects fees. While most reservation lakes and streams are open to bait fishing, certain select waters are restricted to flies and lures. Fish species include native Apache cutthroat, brown, brook, and rainbow trout, and some Arctic grayling. Yearly fishing permits are priced at \$80, summer permits at \$50, and day permits at \$5.00. There is even a rent-a-lake program which allows Cyclone and Hurricane lakes to be rented for \$300 a day with a three-day minimum. Fishing rights have proved lucrative, generating \$600,000 in revenue in 1995.

When revenue from other services such as camping, boating, river rafting, and photographic safaris are added, amenity-based recreation enterprises generated nearly \$2 million in 1995. This is comparable to the tribe's logging operation, casino, and

ski resort as an important source of revenue and jobs. Entrepreneurship and management institutions that conserve wildlife have benefited both the White Mountain Apache and the wildlife on the reservation.

American Indian history shows that calls for spiritual awakenings aren't enough for the environment; you need workable institutions that provide positive incentives for good stewardship. Because American Indians adapted their institutions to resource constraints, they were able to sustain life, often in hostile environments. Property rights are an integral part of American Indians' heritage. Refocusing on these institutions, as the White Mountain Apache have done, offers the best way for Native Americans to manage their resources on a sustainable, profitable basis.

Non-Indians also would do well to stop promulgating myths about the Indians as a solution to modern environmental problems. Devolution of authority and responsibility offers the best hope for resource conservation. Rather than shunning property rights solutions for mythical spiritual ones, we should embrace them, as did our Indian predecessors on this continent. ♦

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