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TOWARD A POLICY OF DESTRUCTION

BUFFALOES, LAW, AND THE MARKET, 1803-83

ANDREW ISENBERG

When the United States purchased the Louisiana Territory from France in 1803, it acquired an abundance of natural resources that would help fuel American economic expansion for the rest of the nineteenth century. The fertile soil of the tallgrass prairie would support one of the most productive agricultural regimes in the United States. Lumberers would cut longleaf, shortleaf, loblolly, and slash pine from the west bank of the Mississippi River between New Orleans and St. Louis. Miners would discover deposits of gold and lead in Colorado, Montana, and South Dakota.¹ Yet the most prominent resource of the Louisiana Territory in the nineteenth century was located in the semiarid

shortgrass Plains west of the hundredth meridian. The 30 million buffaloes found on the High Plains in 1803 would prompt one western historian to call the acquisition of the Louisiana Territory, "the single largest purchase of livestock in history."² Yet eighty years after the Louisiana Purchase, the bison of the Great Plains had been nearly eliminated.

On its surface, the near-extirmination of the bison appears like other failures of resource management in the United States in the nineteenth century, when an instrumental economic mentality encouraged the unthinking depletion of resources. Yet the eradication of bison from the Great Plains was not unforeseen, but purposeful. In order to pacify the Plains Indians, the federal government sought to exterminate the buffalo. As early as the 1830s, Indian agents on the upper Missouri River had warned that the numbers of bison were declining precipitously under the pressures of Indian and white hunters.³ The pressure on the herds had increased after 1870, when the extension of railroads to the Plains and the invention of high-powered rifles and refined tanning technologies improved the marketability of buffalo hides. Despite mounting evidence that commercial hunters would soon render the North

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American bison extinct, state and federal authorities acting on the recommendations of the Department of the Interior and the Army did not pass protective legislation until after the number of buffaloes had been reduced to a few hundred—that is, until so few buffaloes remained that nomadic Indians of the Plains abandoned the hunt and surrendered to the reservation system.

Policy makers in the late nineteenth century accepted the extermination of bison as both reasonable and natural. Omar Conger, a member of Congress from Michigan, looked upon protective legislation as “utterly useless.” During Congressional debate in 1874 he said, “There is no law that Congress can pass that will prevent the buffalo disappearing before the march of civilization.” Yet at the time of the Louisiana Purchase to countenance the extermination of a species was unthinkable. Writing in 1787 Thomas Jefferson expressed his belief that the mammoth, the buffalo’s prehistoric analogue, was not extinct but could be found in the North American interior. “Such is the economy of nature, that no instance can be produced of her having permitted any one race of animals to become extinct, of her having formed any link in her great work so weak as to be broken.”⁴ The extinction of the bison, thought to be impossible in 1803, was considered inevitable at the end of the century.

Between the Louisiana Purchase in 1803 and the virtual extinction of the North American bison in 1883, prevailing interpretations of nature, Indians, and commerce conditioned economic and environmental regulation of the Great Plains. In the Jeffersonian era, most Americans thought nature was orderly, harmonious, and benevolent. They perceived Native Americans as noble savages who lived in spartan, egalitarian simplicity. Late eighteenth-century political economy sought to balance economic interests, maintain stability, and control economic development. The federal Indian factory system, which regulated the fur trade in the United States between 1795 and 1822, was a legal codification of this mechanistic world-

view. The factory system incorporated Indians, whites, and the natural environment into a stable, balanced system of regulated trade.

Beginning in the 1830s, however, a new paradigm shaped economic and environmental regulation of the Plains, a paradigm that emphasized conflict and competition. Most midcentury Americans believed nature to be turbulent and competitive. They saw Indians not as noble savages but as an inferior racial stock fated for extinction. They viewed the market not as an engine of equality, but as a trial that selected the fittest for survival. Similarly, the American legal order was transformed in the nineteenth century. By midcentury the legal system that had once mandated community harmony and economic stability advocated unleashing economic competition and opening natural resources to economic development.⁵ This Darwinian world view influenced lawmakers to facilitate the subjugation of the plains nomads and to open the market for the extermination of buffaloes; it sanctioned such actions as the survival of the biological and economic fittest.⁶

The shift from one dominant paradigm to another was not an absolute change, nor did other views of Indians or nature disappear. Although the dominant view of nature and Indians in the eighteenth century was of an orderly environment populated by noble savages, some Americans saw nature as a howling wilderness and Indians as Hobbesian brutes. Likewise, despite the dominance of the Darwinian paradigm in the mid-nineteenth century, the myth of the noble savage re-emerged in nineteenth-century literature.⁷ Dominant worldviews did not force all Americans into intellectual lockstep; rather, they were widespread attitudes and assumptions that guided political and economic decisions.

In Jefferson’s time, most people in the English-speaking world believed that nature was orderly and benign. That belief was a legacy of eighteenth-century students of nature like the Swedish botanist Carolus Linnaeus and the French naturalist Georges Louis LeClerc, the Comte de Buffon. Linnaeus and Buffon, the founders of modern natural history, saw in na-

ture an integrated order and benevolent plenitude. They classified thousands of plants and animals according to fixed categories and described nature as an immutable "system of laws." The natural order of Linnaeus and Buffon was stable, harmonious, and regular: the circulation of water from rainfall to rivers to oceans to rainfall again; the cycle of the seasons; the subsistence of plants upon the soil, animals upon plants, carnivores upon their prey, and hunters upon game. In North America, this mechanistic view of nature dominated. American naturalists such as Manasseh Cutler, Humphrey Marshall, John and William Bartram, Charles Willson Peale, Benjamin Smith Barton, and Alexander Garden incorporated New World flora and fauna into the Linnaean system of classification. Likewise, American landscape painter Washington Allston depicted the American countryside as a pastoral Arcadia. Consistent with a Deistic theology, most Americans in the late eighteenth century saw nature as a well-oiled machine designed to provide for humanity.⁸

Just as the late eighteenth-century worldview imposed order and benevolence upon the environment, it attributed similar qualities to "nature's children," Native Americans. The ideal of the noble savage, "unburdened by social conventions, sometimes toughened by a puritan simplicity, limited in his requirements, and content in a world that demanded nothing of him," dominated Jeffersonian America. J. Hector St. John de Crèvecoeur, in *Letters from an American Farmer*, first published in 1782, contended that Indians "live without care, sleep without inquietude, take life as it comes, bearing all its asperities with unparalleled patience. . . . They most certainly are much more closely connected to Nature than we are; they are her immediate children."⁹ The image of the noble savage persisted in American portraiture until the 1830s in the serene and aloof figures in the works of Charles Bird King and George Catlin.¹⁰ In the late eighteenth and early nineteenth century, Indians, like nature, were presumed to be essentially static, orderly, and benign.

The ideals of the benevolent environment and the noble savage were part of the same system of thought that included Jeffersonian political economy. Late eighteenth- and early nineteenth-century political and economic ideology centered around conflictive ideas about commerce. For the most part, Americans of Jefferson's generation welcomed commercial activity as a harmonizing force. The widespread, rational pursuit of property, according to late eighteenth-century liberal ideology, insured against the aggregation of wealth in the hands of an aristocracy. At the same time, adherents to republican ideals harbored considerable misgivings about the effect of excessive commerce on republican government. Jeffersonians prized economic independence as the source of the civic virtue necessary to representative government. Only self-sufficient citizens, like yeoman farmers, could be expected to detach their private interests from the public good. "Corruption of morals in the mass of cultivators," Jefferson wrote in 1787, "is a phenomenon of which no age nor nation has furnished an example." Unchecked commercial activity, because it discouraged simple needs and self-sufficiency, and instead encouraged luxury and vice, threatened to undermine republican virtue. To forestall this fate, republicans hoped to arrest American economic development at the commercial agrarian stage. Indeed, Jefferson hoped that the Louisiana Purchase would provide enough land to insure that the United States would always be a nation of independent farmers.¹¹

Jeffersonian views of nature, Indians, and political economy depended upon many common assumptions. Stability and harmony figured importantly in the late eighteenth- and early nineteenth-century worldview. Nature operated according to unchanging laws, Indians existed in a perpetual state of harmony with the environment, and an agrarian democracy, Jefferson and others hoped, would form a stable, everlasting republic. Likewise, both nature and economy functioned according to rational strictures. In all, the mechanistic view of nature,

the ideal of the noble savage, and Jeffersonian political economy bore the imprint of late eighteenth- and early nineteenth-century consciousness: stability, harmony, order, benevolence, and rationality.

Jeffersonian culture shaped economic and environmental regulation and Indian policy in the late eighteenth and early nineteenth century. The Jeffersonian suspicion of commerce, with its attendant ideal of stability, was evident in Congress's enactment of the Indian Factory Act in 1795. The system provided for the licensing of private traders of good moral character and the establishment of federally owned trading posts, or factories. In exchange for furs, the factories provided Indians with goods at cost. Because they sought only to meet their expenses, the factories hoped to undersell private vendors and force them out of the fur trade. John Mason, the first superintendent of the factory system, believed that private traders were persons "of desperate character, who are debasing the habits of the Indians—and at the same time cheating them of their little earnings by constantly dealing out to them spirituous liquors." John C. Calhoun, Secretary of War under President James Monroe, was particularly concerned about the effect of private trade in the newly acquired Louisiana Territory, "the best region for furs and peltries on this continent." He wrote in 1818 that unregulated commerce in furs on the Great Plains would be disastrous. "Each trader, or association of traders, would endeavor to monopolize the trade within certain limits, and would exert their cunning and influence to render the savages their partisans, and the enemy of their rivals in trade. . . . A state of disorder and violence would universally prevail." For these reasons Jefferson commended the purpose of the factory system to "undersell private traders, . . . drive them from the competition," and thus, win "the goodwill of the Indians."¹²

Turn-of-the-century Jeffersonians believed that well-regulated commerce would pacify and civilize Indians; an unregulated market in furs would bring out the worst characteristics of both Indians and whites. Thus they proposed to cre-

ate a system that would bring order and stability to the fur trade. Like the late eighteenth-century mechanistic vision of nature, the factory system incorporated disparate elements into a coherent whole. It was designed to function like a well-oiled machine, stabilizing the interests of white traders, Indian hunters, and fur-bearing game.¹³

Between 1795 and 1808, all the federal trading posts were east of the Mississippi River. By 1808, however, private traders had opened the commerce in furs west of the Mississippi, and the trade in the East had declined precipitously as Indian and white hunters exhausted supplies of fur-bearing game. In that year, the Office of Indian Trade established a new factory in the Great Plains. The new post, Fort Osage, was located 330 miles up the Missouri River from St. Louis, at the mouth of the Kansas River. The villages of the Osages, Kansas, Otoes, and Pawnees were located in the region near the factory. These riverine villagers of the eastern Great Plains spent roughly half the year in their settlements, where the women planted corn, beans, melons, and squash and the men hunted the deer, elk, and small mammals found in the river valleys. In the summer months, the Indians abandoned their villages for the High Plains, where they hunted buffalo from horseback. In the autumn, they returned to their villages to harvest their crops. The production of the village was shared widely; bonds of kinship enjoined the fortunate to provide for the destitute.¹⁴ Between the various tribes, exchange cemented peaceful relations. In order to insure a "market peace," villagers extended ties of "fictive kinship" to commercial visitors.¹⁵

The factor at Fort Osage, George C. Sibley, was devoted to the goal of a well-regulated Indian trade. He attributed most Indian attacks on whites to the rapacity of private traders:

The extortion [sic] of the traders are always so exorbitant that 'tis not at all surprising that the Indians sometimes resort to robbery. In truth, the most of the difficulties that arise between the Indians and the whites may be traced to this very cause. The Factory System

as established by Jefferson, was designed to obviate this end, and to a great extent it has had that effect.

Sibley contended that the Kansas "are now undergoing a Reformation," under "the powerful influence of a better regulated Trade." The Kansas increasingly brought their deerskins, beaver pelts, and buffalo tallow to Fort Osage, where they obtained goods "at prices less than half what the traders extort from them."¹⁶ The Osages also ceased their hostilities against whites after the establishment of the trading post.

Accordingly, Fort Osage was a busy post. Between November 1807 and September 1811, the Office of Indian Trade supplied Fort Osage with merchandise worth \$25,539, more than any other factory in the system.¹⁷ Although trade was interrupted during the War of 1812, the post ranked as the most productive trading site in the factory system in 1817 and 1819.¹⁸ The Kansas, Pawnees, Otoes, and Osages traded their furs at Fort Osage rather than with private trading outfits because they received more goods for their pelts. At Fort Osage, Sibley added twenty-five percent to the value of the factory's goods to cover the costs of transportation and the maintenance of the post. The prices at Fort Osage therefore compared quite favorably with those of private trading outfits, which often sold their goods to Indians at 300 to 400 percent of their value.

In 1811, Sibley estimated that a trader with three thousand dollars worth of merchandise could in one season exchange those goods for ten to twenty-five packs of furs weighing one hundred pounds each. In St. Louis, the trader could sell those furs for eight to twelve thousand dollars.¹⁹ Indeed, private traders had bilked Plains Indians of their furs since the late eighteenth century. Between 1788 and 1803, St. Louis trading outfits annually garnered about \$200,000 worth of furs from the Plains tribes. In return, they sent about \$60,000 worth of merchandise up the Missouri.²⁰ Because the Indians received more merchandise for their goods at Fort Osage, they could supply themselves with manufactured goods at the cost of fewer

pelts. The factories thus discouraged the kind of overhunting that private traders engendered.

In addition to discouraging overhunting, Fort Osage adapted its operations to the ceremonial aspects of Indian intertribal exchange. The factors sought not to profit from the fur trade but to gain the Indians' good will. John Mason wrote to Sibley in 1808, "The principle object of the government in these establishments being to secure the Friendship of the Indians in our country . . . let every transaction with them be conducted as to inspire them with full confidence in its honor, integrity, and good faith . . . [B]e conciliatory in all your intercourse with the Indians, and so demean yourself toward them generally and toward their chiefs in particular as to obtain and preserve their Friendship and to secure their attachment to the United States."²¹ For the Indians and for the Office of Indian Trade, exchanges served to facilitate and formalize friendship and alliance.

Proponents of the dependency theory of development and underdevelopment have argued that the United States established the factories to render Indians dependent on the federal government.²² There is some evidence for this idea: in 1803, Jefferson suggested to William Henry Harrison that the government factories would "be glad to see the good and influential Indians among them run into debt, because we observe that when these debts get beyond what the individual can pay, they become willing to lop them off by a cession of land." Despite Jefferson's musings, it seems unlikely that the factory system was designed to reduce Indians to dependence. Jefferson did not equate Indians' cession of lands with their economic marginalization. He believed that once Indians adopted techniques of intensive cultivation, they would no longer need to manage extensive hunting territories. "A single farm," he wrote, "will show more of cattle, than a whole country . . . can of buffaloes."²³

Indeed, the Osages regarded the factory not as an instrument to defraud them of their lands but as an institution designed to insulate them from the rapacity of St. Louis traders. In 1808, when the Osages agreed to cede territory to the

United States, it was not because they had run themselves into debt at the factory. In fact, they insisted that the federal government continue to maintain the post as one of the conditions of the treaty. Moreover, had it wished to ruin the Indians with credit, the federal government could have delivered them into the hands of private fur traders. Yet the factories were designed to eliminate credit, the profit motive, ruinous competition, and disreputable characters from the fur trade. The factory system was an attempt to promote peace with Indians through regulated commerce.

Yet Jeffersonian political economy maintained conflicting notions of commerce; it was both a source of corruption and a mechanism for equality and harmony. The factory system adhered to both ideas, and this internal contradiction eventually proved to be the system's downfall. From their inception in 1795, the factories tried to eliminate "Fraud, Trick, or deception" from the fur trade.²⁴ At the same time, in the interest of equal economic opportunity, federal Indian agents continued to license private fur traders. Although licensed to deal in the Great Lakes woodlands, private trading outfits carted their trade goods to the northern Great Plains where beaver and bison were plentiful.²⁵ Private traders not only defrauded Indians of their furs, but dealt liquor and extended credit to them, which stimulated overhunting and depleted supplies of fur-bearing game. "Our Indians," wrote Thomas L. McKenney, who became superintendent of Indian trade in 1816, "owe much of their misery to the half-way policy of the government."²⁶ Within the various bureaus of the federal government that managed Indian affairs, condemnation of private traders was nearly universal. Yet the traders' appeal to equal economic opportunity gained strength in the first decades of the nineteenth century. In 1821, despite the treaty that guaranteed the continuance of the Osage factory, Congress voted to disband the factory system.²⁷

The demise of the factory system and of the

eighteenth-century ideal of natural and commercial stability that it represented was part of the reformation of the American legal order in the early nineteenth century. The eighteenth-century concern for an ordered community and economic harmony gave way to a nineteenth-century emphasis on economic liberty. A spirit of economic development was ascendant in the United States in the early nineteenth century; it was accompanied by a changing conception of the law. American law in the late eighteenth century had derived largely from the anti-developmental English common law. Created to serve the interests of England's landed gentry, the common law had envisioned a static, agrarian conception of land. Beginning around 1820, the United States increasingly discarded common law principles in favor of instrumental statutes that facilitated the exploitation of public lands and natural resources for economic growth.²⁸ Absent from the nineteenth-century legal and economic order was the older concern for harmony and balance. Quite in contrast to earlier customs, after 1820 the law was unlikely to uphold the rights of individuals or corporations with established economic interests if those interests stood in the way of economic growth.

Ironically, while the Jeffersonian concept of mixed economic enterprise was undermined by the ideal of economic individualism and competition, when the federal and state governments abandoned economic interventionism in the 1820s and 1830s, they opened the field not to economic competition but to a handful of powerful corporations. The fur trade was particularly liable to corporate dominance because it required a large initial capital investment. The most influential of these fur-trading companies was John Jacob Astor's American Fur Company, which formed a Western Department to exploit the resources of the Upper Missouri in 1822. Thomas McKenney had complained in 1818 that the large fur companies possessed "a complete ability to keep out of the trade all *individuals*—yet, those very men are foremost in the clamour for a privilege for in-

dividual enterprise, whilst they all testify their hostility to Government Policy. I wonder how many *individuals* enjoy the benefits of Mr. As-tor's wide extended, and I may add very fruitful trade?"²⁹

In the decades after 1820, a new understanding of nature accompanied economic expansion in the United States. While eighteenth-century naturalists had described stability, harmony, and order, by the mid-nineteenth century naturalists saw in nature instability, turbulence, competition, and change. Charles Darwin wrote in *The Origin of Species* in 1859,

Nothing is easier than to admit in words the truth of the universal struggle for life, or more difficult constantly to bear in mind. We behold the face of nature bright with gladness, we often see superabundance of food; we do not see or we forget, that the birds which are idly singing round us live mostly on insects or seeds, and are thus constantly destroying life; or we forget how largely these songsters, or their eggs, or their nestlings, are destroyed by birds and beasts of prey.³⁰

Darwin was not alone in his view of nature as "red in tooth and claw." In his 1851 novel *Moby Dick*, Herman Melville depicted nature as dark and unfathomable. Romantic landscape paintings of the mid-nineteenth century, such as George Caleb Bingham's 1850 work *The Storm*, similarly confirmed that nature could be turbulent and destructive. Consistent with the new legal order that opened up the struggle for economic ascent, Americans saw in nature a desperate struggle for survival among species and among variations of a single species. Eighteenth-century naturalists believed that nature did not allow a species to change or to die out. Beginning in the middle of the nineteenth century, scientists and others came to believe that nature made no such provision for the survival of the weak; indeed, it sanctioned their extinction.

Likewise, in the mid-nineteenth century most white Americans assumed that the expansion of the United States at the expense of Native Americans was a process of natural selection. After 1820 white Americans no longer commonly accepted the ideal of the American Indian as a noble savage living in primitive purity. Instead, they adopted racist, pseudo-scientific characterizations of Native Americans as biological inferiors to whites. Charles Caldwell, a professor of natural history trained at the University of Pennsylvania, objected to the eighteenth-century notion that Indians were the equals, or at least the potential equals, of whites. He argued in 1830 that races had been created distinct and unequal. Indians, he contended, were inferior and therefore destined to die out. Physicians like the Philadelphian Samuel George Morton drew on pseudo-scientific ideas to argue that Indians were biologically deficient. Writing in 1839, Morton contended that Indians' intellectual faculties "appear to be of a decidedly inferior cast when compared with those of the Caucasian or Mongolian races." No amount of education, Morton believed, could improve the Indians; they were fated for extinction.³¹ Likewise, Alfred Russel Wallace, who formulated his own theory of natural selection independent of Darwin, argued in 1864,

It is the same great law of "the preservation of favoured races in the struggle for life" which leads to the inevitable extinction of all those low and mentally undeveloped populations with which Europeans come in contact. The red Indian[s] in North America . . . die out, not from any one special cause, but from the inevitable effects of an unequal mental and physical struggle.³²

Consistent with this view of Indians as savage impediments to progress, mid-century American painters such as Bingham, Seth Eastman, Charles Wimar, and Charles Deas depicted Indians as skulking, ferocious brutes.³³

In 1850, the British writer Herbert Spencer

lent an aura of providence to the concept of the extinction of the American Indians, much as Darwin, nine years later, would explain the extinction of unfit species as a healthy process of natural selection:

Suffering and death are the penalties attached by nature to ignorance, as well as to incompetence. . . . If there seems harshness in such ordinations, be sure it is apparent only, and not real. Partly by weeding out those of the lowest development and partly by subjecting those who remain to the never-ceasing discipline of experience, nature secures the growth of a race who shall both understand the conditions of existence and be able to act up to them.³⁴

Similarly, political economists in the middle of the nineteenth century believed that economic competition insured the growth and betterment of American society. Just as nature selected the fittest for survival, the operations of the market selected the efficient and productive for prosperity. The new political economy no longer esteemed self-sufficiency or spartan simplicity but called instead for economic specialization, commerce, and competition. Like Herbert Spencer, mid-century political economists argued that the productive must replace the inefficient if the United States were to prosper. Jeffersonian political economists had envisioned the incorporation of Native Americans within a network of regulated trade. The new political economists, in contrast, viewed the market not as a mechanism for harmony, but as a trial to separate the fit from the unfit.³⁵

Just as Jeffersonian views of nature, Indians, and economy had been united by shared assumptions of rationality and harmony, the views of nature, Indians, and economy in the middle of the nineteenth century also constituted a coherent worldview. Underlying the mid-nineteenth-century consciousness was a vision of atomization and conflict, however. Darwin saw

in nature an unending "struggle for life" among species and varieties of the same species. Political economists envisioned a national market that pitted all against all. Americans believed that, although cruel, the rigors of natural, racial, and economic competition were beneficial. Biology and the market alike selected the strongest for survival. Accompanying the view that natural, racial, and economic competition worked to the benefit of the whole was the belief that extinction was acceptable, perhaps even welcome.

Mid-century regulations bore the imprint of the Darwinian consciousness. Once the commerce in buffalo robes had been opened to private traders with the dissolution of the factory system in 1822, the trade operated largely free of governmental regulation. The Indian Trade and Intercourse Act, passed in 1834, purported to regulate commerce with Indians. It stipulated that only licensed traders could legally deal with Indians, and it outlawed liquor from the trade, but it remained largely unenforced. Moreover, in 1866, its strictures on Indian trade were lifted in an amendment attached to a Bureau of Indian Affairs appropriations bill. Like the factory system and the 1808 treaty with the Osages, the Trade and Intercourse Act was disregarded and later discarded in the interest of economic development, especially after the discovery of gold in Colorado, Montana, and the Black Hills between 1859 and 1874. Economic and environmental regulation of the Great Plains in the mid-nineteenth century thus endeavored to open up the region's natural resources to economic development at the expense of Native Americans, especially the nomads of the western Great Plains.³⁶

Unlike the village-dwelling Indians of the Missouri who had traded their furs at Fort Osage, during the nineteenth century the nomads of the Great Plains did not combine hunting and gathering with agriculture but instead relied almost entirely on the buffalo. Yet before the mid-eighteenth century these nomads—among them the Arapahoes, Atsinas, Cheyennes,

Crows, and Sioux—had combined planting with summer migrations to the High Plains to hunt bison. Likewise, the Assiniboinés and Blackfeet had spent much of the year hunting and gathering in the woodland-prairie border zone of Canada, and the Comanches and Kiowas had hunted and gathered in the Great Basin and Rocky Mountains. These tribes had similarly migrated to the Plains in the summer to hunt buffaloes. The Indians' former reliance on more than one resource had been a conscious land-use strategy, a system of ecological "safety nets." Economic specialization was dangerous, but by gathering and hunting as well as planting, or by gleaning their subsistence from two or more ecosystems, Indians could survive poor hunts or crop failures.³⁷

In the eighteenth century, in response to the European economic and ecological conquest of North America, the tribes that would become the nomadic Plains Indians abandoned their ecological "safety nets" to concentrate on equestrian buffalo hunting. The horses that Europeans had introduced allowed the Indians to adapt their movements to the migrations of the buffalo herds. At the same time, European diseases turned Indian villages into deathtraps. Faced with outbreaks of smallpox and measles, a number of village tribes in the eighteenth and early nineteenth century abandoned settled agriculture and become nomads. In addition, the lure of trade with Europeans induced many tribes to abandon planting to concentrate on the procurement of beaver pelts and buffalo robes.³⁸ Although plains nomads were indomitable, their livelihood rested almost entirely on the bison. After the Civil War, when the federal government sought to confine the nomads to reservations, their specialized economy and narrow ecological foundation proved to be a grave liability.

Before 1830 white fur traders found that the profitable market was in beaver pelts, yet Plains Indians sent about 5000 buffalo robes each year to St. Louis. Commerce in buffalo robes expanded after 1830, once the strictures of the

factory system had been lifted and plains beavers had been hunted out. From 1840 until the 1870s, plains nomads traded more than 100,000 robes each year to Missouri River merchants.³⁹ The opening of the market in buffalo robes hastened the commercialization of Plains Indian culture and led to increasingly heavy pressure on buffalo herds. In the 1830s the western Sioux relocated from the Missouri River to the upper Platte River region to exploit remaining herds. By the 1850s, when the upper Platte had been stripped of bison, these bands of the Sioux along with the Cheyennes began to pressure the Crows' herds in the Powder River region. The Blackfeet increased the size of their buffalo corrals to maximize the production of robes. Blackfoot hunters took more wives, and women's age of first marriage fell, as Blackfoot women were pressed into service to dress robes for trade. As the Blackfeet expanded their efforts to produce robes, they stopped making their own clothing, pottery, and baskets, preferring to trade for goods manufactured by whites.⁴⁰

In the early nineteenth century, the factory system had adapted to the aboriginal Plains gift economy and discouraged overhunting. With the breakdown of the system, both Indian and Euroamerican societies shifted from sustainable resource strategies to exploitative, market-oriented economic regimes. By the middle of the nineteenth century, the changing American legal and economic order had helped to transform Plains Indian societies into market-driven societies. Under the pressure of the market, plains nomads began to hunt the bison into extinction. Decades before white hunters, armed with powerful, accurate rifles, delivered the coup de grace to the herds, plains nomads' exploitation of the bison for trade had already proved to be unsustainable.⁴¹

The federal government did not fail to notice the plains nomads' increasing dependence on the diminishing herds. As early as 1837, Indian agents in the Plains noted the scarcity of buffalo. Thereafter, references to the mounting desperation of the nomads were included in

nearly every annual report of the Commissioner of Indian Affairs. One agent reported that in 1846 the scarcity of buffalo near the Missouri River reduced the Assiniboines to cannibalism.⁴² A few agents urged the government to adopt a policy of humanity, but many saw the destruction of the herds as a means of pacification. Columbus Delano, the Secretary of the Interior between 1870 and 1875, summed up the potential benefits of the destruction of the bison in his annual report for 1872:

The rapid disappearance of game from the former hunting-grounds must operate largely in favor of our efforts to confine the Indians to smaller areas, and compel them to abandon their nomadic customs. . . . So long as the game existed in abundance there was little disposition manifested to abandon the chase.⁴³

Texas Representative James W. Throckmorton echoed Delano's views in 1876, saying,

there is no question that so long as there are millions of buffaloes in the West, so long the Indians cannot be controlled, even by the strong arm of the Government. I believe that it would be a great step forward in the civilization of the Indians and the preservation of peace on the border if there was not a buffalo in existence.⁴⁴

At the same time that the federal government adopted a policy of ecological destruction, white hunters began to press the herds to extinction. Their entry into the business of buffalo hunting accompanied the extension of railroads into the southern Plains, which facilitated the shipment of hides to eastern markets. Improved tanning technologies made summer hides marketable and meant year-round pressure on the herds. The marketability of summer hides and the economic depression of 1873 that threw railroad construction laborers in the southern Plains out of work combined to drive hundreds of white hunters into the field. Between 1872 and 1874,

white hunters in the southern Plains shipped 1.3 million buffalo hides east.⁴⁵

Lawmakers in the southern Plains followed the advice of the Secretary of the Interior and other advocates of destruction. A bill in the Kansas state legislature outlawing the "wanton slaughter of the buffalo" was vetoed in 1872. The next year, the Texas state legislature considered a similar bill. General Philip Sheridan, stationed in San Antonio, reportedly told the legislature in Austin that the hide hunters

have done more in the last two years, and will do more in the next year, to settle the vexed Indian question than the entire regular army has done in the last thirty years. They are destroying the Indians' commissary; and it is a well-known fact that an army losing its base of supplies is placed at a great disadvantage. Send them powder and lead, if you will; but, for the sake of lasting peace, let them kill, skin and sell until the buffaloes are exterminated.⁴⁶

Some members of Congress believed that the policy of destruction was counterproductive; it merely drove desperate Indians to acts of violence. "I am not in favor of civilizing the Indian by starving him to death," Representative Greenbury Fort of Illinois said. In 1874 and 1876, Fort introduced resolutions banning commercial buffalo hunting in the Indian territories. In opposition, Ohio Representative and future President James Garfield cited the recommendations of the secretary of the interior and asked, "whether the very processes of civilization are not in their own course sweeping away the ground upon which Indian barbarism plants itself?"⁴⁷ The 1874 bill passed both houses of Congress but was vetoed by President Ulysses S. Grant. In 1876, Fort's bill passed in the House but was stalled in a Senate committee. Indian policy, in effect, was to allow the market in buffalo hides to proceed unfettered. Lawmakers acquiesced to a Darwinian worldview that sanctioned the subjugation of Indians and the extermination of buffaloes as "natural."

While the secretary of the interior and the Department of the Army persuaded governors, the Senate, and the President to allow the hide hunters' eradication of the herds to continue, Army officers in the Plains encouraged white hunters to destroy the "Indians' commissary." As early as 1867, Sir William F. Butler, a British officer, confessed to U.S. Army Col. Richard I. Dodge that he had shot more than thirty buffaloes on the North Platte. "I could not but feel some qualms of conscience at the thought of the destruction of so much animal life, but Col. Dodge held different views. 'Kill every buffalo you can,' he said; 'every buffalo dead is an Indian gone.'"⁴⁸ During the height of the slaughter of the southern herd, Dodge was responsible for keeping hide hunters from crossing the Arkansas River and hunting on its southern bank, designated the exclusive hunting territory of the Southern Cheyennes, Arapahoes, Comanches, and Kiowas in the Treaties of Medicine Lodge in October, 1867.⁴⁹

Nonetheless, Dodge did not prevent white hunters from entering the Indians' preserve. In 1873 he reportedly told Josiah Wright Mooar, the head of the largest hide hunting outfit in the southern Plains, "If I were a buffalo hunter, I would hunt where the buffaloes are." In 1868 General William T. Sherman, a member of Grant's peace commission to the Sioux, Cheyennes, and Arapahoes, and signatory to the Treaty of Fort Laramie of 1868, had conceded to the plains nomads "a right to hunt buffaloes as long as they last." Yet Sherman wrote to his brother, a U.S. Senator from Ohio, that "it will not be long before all the buffaloes are extinct."⁵⁰ Like the factory system, the treaties of 1867 and 1868 purported to restrain the exploitation of natural resources and preserve them for Native Americans. They were ignored by a midcentury legal order that overrode laws designed to control economic development and overlooked the social and ecological costs of economic growth.

The slaughter, therefore, continued unabated, moving from the southern Plains to the north. The hides were shipped east by rail and,

because buffalo leather is highly elastic, used to make belts to drive industrial machinery. When the buffaloes had been hunted out by 1883, homesteaders and Indians scavenged the Plains for their bones, which were sold to railroads for delivery to sugar refineries or fertilizer plants. In less than one hundred years, the most prominent resource of the Plains had been ground down to its salable parts and incorporated into the emerging American industrial system. Once the herds were eradicated, plains nomads were forced to go to reservations. Commerce, which Americans thought would be the Plains' engine of harmony in 1803, had become by 1883 an engine of destruction and impoverishment. During the nineteenth century, American commerce was transformed from an agent of peace to an agent of conquest.

Underlying the American extermination of the bison in the 1870s and early 1880s was an ecological irony. In terms of resource management, by the mid-nineteenth century the plains nomads shared important similarities with their contemporaries in United States society. Like the American industrial economy that relied on the unsustainable use of natural resources, nomadic societies had come to rely overmuch on a narrow ecological foundation, the buffalo herds. Like the emerging industrial society of the United States, which felled trees and mined coal and iron ore at an alarming rate, the Indians' subsistence was based on the exploitation of nature. In Americans' understanding, the plains nomads' reliance on the buffalo was the weakness of a primitive society. Yet when Americans slaughtered the buffaloes to pacify the Plains Indians they did not exploit the peculiar weakness of savages; when they capitalized on the plains nomads' ecological Achilles heel they exposed the fragility of all societies, including their own, that rely on the unsustainable exploitation of nature.

NOTES

1. For the use of natural resources in the nineteenth-century United States, see William Cronon, *Nature's Metropolis: Chicago and the Great West* (New

York: Norton, 1991) and Joseph M. Petulla, *American Environmental History: The Exploitation and Conservation of Natural Resources* (San Francisco: Boyd & Fraser, 1977), pp. 69-216. For the history of lumbering in the United States, see Michael Williams, *Americans and Their Forests: A Historical Geography* (New York: Cambridge University Press, 1989).

2. Francis Haines, *The Buffalo: The Story of the American Bison and their Hunters from Prehistoric Times to the Present* (New York: Crowell, 1975), p. 89. Most estimates of the nineteenth-century bison population were too high. Tom McHugh, *The Time of the Buffalo* (Lincoln: University of Nebraska Press, 1972), pp. 16-17, used range managers' estimates of Plains "grazing capacity" to arrive at a figure of thirty million bison in the Plains. His estimate accounted for the varying quality of forage and competition from other grazers such as elk, deer, and pronghorn. Dan Flores, "Bison Ecology and Bison Diplomacy: The Southern Plains from 1800 to 1850," *Journal of American History* 78 (September 1991): pp. 465-485 used livestock figures from the 1910 agricultural census to estimate a population of 28 to 30 million bison in the prehorse Great Plains. No less than population estimates, nomenclature has stirred debate. The American buffalo belongs to the genus *Bison*. Scientists refer to the animal as the bison to distinguish it from the African Cape buffalo, the wild Indian buffalo, the domesticated water buffalo, and other ruminants that belong to the *Bos* genus. Actually, the American buffalo belonged to the *Bos* genus before being reclassified, and members of the *Bos* and *Bison* genera share similar chromosomal structures and blood types. To complicate matters further, two subspecies of the *Bison* genus were found in nineteenth-century North America: the plains buffalo (*Bison bison bison*) and the wood buffalo (*Bison bison athabasca*). A European subspecies, the wisent, was once classified as a separate species but is now known as *Bison bison bonasus*. See McHugh (above), pp. 27-38. Nineteenth-century observers consistently used the term "buffalo." Although scientists prefer "bison," it is certainly no less correct to refer to the *Bison bison* as the buffalo than it is to call the indigenous inhabitants of the Americas "Indians." For the purposes of this study, the terms bison and buffalo are used interchangeably.

3. See the report of Joshua Pilcher, Indian agent on the upper Missouri River, *Annual Report of the Office of Indian Affairs*, 25th Cong., 2nd Sess., 1837, S. Doc. 1 (Serial 314), p. 553; or the report of William S. Hutton, Indian sub-agent on the upper Missouri River, *Annual Report of the Office of Indian Affairs*, 31st Cong., 1st Sess., 1849, S. Exdoc. 1 (Serial 550), p. 1074.

4. Omar Conger, 10 March 1874, *Congressional Record*, 43rd Cong., 1st Sess., p. 2107; Thomas Jefferson, *Notes on the State of Virginia*, ed. William Peden (New York: Norton, 1972), pp. 53-54.

5. J. Willard Hurst, *Law and the Conditions of Freedom in the Nineteenth-Century United States* (Madison: University of Wisconsin Press, 1956); Morton Horowitz, *The Transformation of American Law, 1780-1860* (Cambridge: Harvard University Press, 1977).

6. I employ the term "Darwinian worldview" not because I attribute the changing attitudes of the mid-nineteenth century entirely to Charles Darwin, but because both as a product and as a proponent of that worldview he best exemplified the midcentury consciousness. See Donald Worster, *Nature's Economy: A History of Ecological Ideas* (New York: Cambridge University Press, 1985). Most studies of nineteenth-century wildlife law and Indian policy have not placed the law in a broader cultural context. Instead, they have been largely static and nonideological. See James A. Tober, *Who Owns the Wildlife? The Political Economy of Conservation in Nineteenth-Century America* (Westport: Greenwood Press, 1981). For Indian policy, see Francis Paul Prucha, *The Great Father: The United States Government and the American Indians* (Lincoln: University of Nebraska Press, 1984); or Prucha, *Indian Policy in the United States: Historical Essays* (Lincoln: University of Nebraska Press, 1981); or Prucha, *American Indian Policy in the Formative Years: The Indian Trade and Intercourse Acts, 1790-1834* (Lincoln: University of Nebraska Press, 1962). For an excellent example of Indian policy placed in its social and cultural context, see Frederick E. Hoxie, *A Final Promise: The Campaign to Assimilate the Indians, 1880-1920* (New York: Cambridge University Press, 1989); Bernard W. Sheehan, *Seeds of Extinction: Jeffersonian Philanthropy and the American Indian* (New York: Norton, 1974); or the opening chapter of Alan Trachtenberg, *The Incorporation of America: Culture and Society in the Gilded Age* (New York: Hill & Wang, 1982), pp. 11-37.

7. Robert F. Berkhofer, *The White Man's Indian: Images of the American Indian from Columbus to the Present* (New York: Knopf, 1978), pp. 86-90.

8. LeClerc, Georges Louis, Comte de Buffon, *Natural History, General and Particular* (London: 1812). Buffon's *Histoire naturelle* was first published in France in 1761. Carolus Linnaeus, "Specimen academicum de Oeconomia Naturae," *Amoenitates Academicae* II (1751), pp. 1-58. For an analysis of Linnaeus, see Worster, *Nature's Economy* (note 6 above), pp. 26-55. For an analysis of Buffon, see Clarence J. Glacken, *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century* (Berkeley:

University of California Press, 1973), pp. 655-705. For an analysis of late eighteenth-century natural history, see Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences* (New York: Vintage, 1970), pp. 128-32. For the influence of eighteenth-century natural history in America, see Arthur J. Ekirch, Jr., *Man and Nature in America* (New York: Columbia University Press, 1963), pp. 10-21. The works of eighteenth-century American naturalists largely consisted of inventories of plants and animals in accordance with the Linnaean system. Among them are Benjamin Smith Barton, *Fragments of the Natural History of Pennsylvania* (Philadelphia: 1799); John Bartram, *A Journey from Pennsylvania to Onondaga in 1743* (Barre, 1793); William Bartram, *Travels Through North and South Carolina, Georgia, East and West Florida* (London: 1792); Manasseh Cutler, "An Account of Some Vegetable Productions Naturally Growing in the Part of America, Botanically Arranged," in *Memoirs of the American Academy of Arts and Sciences* (Boston: 1785); Charles Willson Peale, *Introduction to a Course of Lectures on Natural History* (Philadelphia: 1799); Peale, *Introduction to a Course of Lectures on the Science of Nature* (Philadelphia: 1800); James E. Smith, ed., *Correspondence of Linnaeus and Other Naturalists* (London: 1821). For Washington Allston, see Jared B. Flagg, *The Life and Letters of Washington Allston* (New York: Scribner's, 1892); William H. Gerdts and Theodore E. Stebbins, Jr., "A Man of Genius": *The Art of Washington Allston (1779-1843)* (Boston: Museum of Fine Arts, 1972).

9. Sheehan, *Seeds of Extinction* (note 6 above), p. 90 (quoted); Berkhofer, *White Man's Indian* (note 7 above), pp. 72-80. Also see William Brandon, *New Worlds for Old: Reports from the New World and Their Effect on the Development of Social Thought in Europe* (Athens: Ohio University Press, 1986); J. Hector St. John de Crèvecoeur, *Letters from an American Farmer and Sketches of Eighteenth-Century America*, ed. Albert E. Stone (New York: Penguin, 1981), p. 215.

10. Julie Schimmel, "Inventing the Indian," in William H. Truettner, ed., *The West as America: Reinterpreting Images of the Frontier, 1820-1920* (Washington: Smithsonian Institution Press, 1991), pp. 148-89. For King, see Andrew F. Cosentino, *The Paintings of Charles Bird King* (Washington: Smithsonian Institution Press, 1977); Herman J. Viola, *The Indian Legacy of Charles Bird King* (Washington: Smithsonian Institution Press, 1976). For Catlin, see George Catlin, *North American Indians: Being Letters and Notes on Their Manners, Customs, and Conditions, Written During Eight Years' Travel Amongst the Wildest Tribes of Indians in North America, 1832-1839* (Philadelphia: Leary, Stuart, 1913). Although Catlin continued to paint and market his works into the

mid-nineteenth century, his pacific view of Native Americans was decidedly the product of an earlier era.

11. Jefferson, *Notes on Virginia* (note 4 above), p. 165. For an interpretation of republicanism that emphasizes suspicions of commerce, see Bernard Bailyn, *The Ideological Origins of the American Revolution* (Cambridge: Harvard University Press, 1967) or Bailyn, *The Origins of American Politics* (New York: Vintage, 1968). Also T.H. Breen, *Tobacco Culture: The Mentality of the Great Tidewater Planters on the Eve of Revolution* (Princeton: Princeton University Press, 1985) and Lance Banning, *The Jeffersonian Persuasion: Evolution of a Party Ideology* (Ithaca: Cornell University Press, 1978). For an interpretation of republicanism that emphasizes liberalism and egalitarianism, see Joyce Appleby, *Capitalism and a New Social Order: The Republican Vision of the 1790s* (New York: New York University Press, 1984). For an attempt to synthesize these two interpretations, see Drew McCoy, *The Elusive Republic: Political Economy in Jeffersonian America* (Chapel Hill: University of North Carolina Press, 1980).

12. John Mason to William H. Crawford, Secretary of War, 6 March 1816, U.S. Bureau of Indian Affairs. *Superintendent of Indian Trade. Letters Sent, 1807-1823*, Vol. C: 485-88. National Archives, Washington, D.C.; John C. Calhoun, "Alteration of the System for Trading with the Indians," 8 December 1818, *American State Papers: Indian Affairs*, Vol. 2 (Washington: Gales and Seaton, 1832-34): 181-85; Jefferson, "Trade," 18 January 1803, *American State Papers: Indian Affairs*, Vol. 1: 684.

13. For the factory system, see Katherine Coman, "Government Factories: An Attempt to Control Competition in the Fur Trade," *Bulletin of the American Economic Association*, 4th ser., 2 (April 1911): 368-88; Edgar B. Wesley, "The Government Factory System Among the Indians," *Journal of Economic and Business History* 4 (May 1932): 487-511; Royal B. Way, "The U.S. Factory System for Trading with the Indians, 1796-1822," *Mississippi Valley Historical Review* 6 (September 1919): 220-35; Herman J. Viola, Thomas L. McKenney, *Architect of America's Early Indian Policy: 1816-1830* (Chicago: Sage, 1974), pp. 6-70; Ora Brooks Peake, *A History of the United States Indian Factory System, 1795-1822* (Denver: Sage, 1954). The factory system envisioned the state working actively in the economy to serve the public good. In the early republic, the federal government conceded most economic regulation to the states. See Louis Hartz, *Economic Policy and Democratic Thought: Pennsylvania, 1776-1860* (Cambridge: Harvard University Press, 1948). The federal government pursued "mixed economic activity" in areas outside states'

authority. Congress regulated commerce with foreign nations, between the states, and with the Indian tribes.

14. Richard White, *The Roots of Dependency: Subsistence, Environment, and Social Change among the Choctaws, Pawnees, and Navajos* (Lincoln: University of Nebraska Press, 1983), pp. 157-77.

15. W. Raymond Wood, "Plains Trade in Prehistoric and Protohistoric Intertribal Relations," in W. Raymond Wood and Margot Liberty, ed., *Anthropology on the Great Plains* (Lincoln: University of Nebraska Press, 1980), pp. 98-109. See also E.M. Bruner, "Differential Change in the Culture of the Mandan from 1250-1953," in Edward H. Spicer, ed., *Perspectives in American Indian Culture Change* (Chicago: University of Chicago Press, 1961).

16. George C. Sibley, "Notes of an Official Excursion from Fort Osage to the Kansas, Pawnees, and Osages," George C. Sibley Papers, Box 1, 1803-1828, Missouri Historical Society, St. Louis.

17. U.S. Bureau of Indian Affairs. *Superintendent of Indian Trade. Letters Received, 1807-1823*. National Archives, Washington, D.C. Document no. 157.

18. "Statement showing the amount and costs of the goods furnished annually to each factory," 12 April 1820, *American State Papers* (note 12 above), Vol. 2: 208.

19. Sibley, "Notes of an Official Excursion" (note 16 above).

20. Merrill G. Burlingame, "The Buffalo in Trade and Commerce," *North Dakota Historical Quarterly* 3 (July 1929): 266.

21. Mason to Sibley, 24 May 1808, *Indian Trade. Letters Sent* (note 12 above), Vol. A: 144-47.

22. See Introduction to White, *Roots of Dependency* (note 14 above), pp. xiii-xix, and William Cronon and Richard White, "Indians in the Land: A Conversation between William Cronon and Richard White," *American Heritage* 37 (August-September 1986): 24.

23. Jefferson to William H. Harrison, 27 February 1803, in *The Writings of Thomas Jefferson*, Vol. 10, ed. Andrew A. Lipscomb and Albert E. Bergh (Washington, D.C., 1905), pp. 369-70. Jefferson, *Notes on Virginia* (note 4 above), p. 61.

24. Mason to Sibley, 24 May 1808, *Indian Trade. Letters Sent* (note 12 above), Vol. A: 144-47.

25. Brig. Gen. H. Atkinson, "Fur Trade," *American State Papers: Indian Affairs*, Vol. 2 (8 March 1826): 661.

26. McKenney to Sibley, 7 April 1821, *Indian Trade. Letters Sent* (note 12 above), Vol. F: 173-74.

27. See "Operations of the Factory System," *American State Papers: Indian Affairs* (note 12 above),

Vol. 2 (8 March 1822): 326-64; also see *History of Congress*, 17th Cong., 1st Sess. (March 1822), 317-31.

28. Hurst, *Law and Freedom* (note 5 above); Horwitz, *Transformation of American Law* (note 5 above); Paul W. Gates, "An Overview of American Land Policy," *Agricultural History* 50 (January 1976): 213-29; Harry N. Scheiber, "Property Law, Expropriation, and Resource Allocation by Government, 1789-1910," *Journal of Economic History* 33 (March 1973): 232-51. For an analysis of American cultural, economic, and legal attitudes toward the environment, see the introduction to Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press, 1979), pp. 6-8.

29. See McKenney to Calhoun, 9 May 1818, *Indian Trade. Letters Sent* (note 12 above), Vol. E: 31-33. For an analysis of the American Fur Company from the perspective of business history, see John D. Haeger, "Business Strategy and Practice in the Early Republic: John Jacob Astor and the American Fur Trade," *Western Historical Quarterly* 19 (May 1988): 183-202.

30. Charles Darwin, *The Origin of Species By Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life* (1859), ed. Charlotte Irvine and William Irvine (New York: Ungar, 1956), p. 19.

31. Charles Caldwell, *Thoughts on the Original Unity of the Human Race* (New York: 1830); Samuel George Morton, *Crania Americana or, A Comparative View of the Skulls of Various Aboriginal Nations of North and South America. To Which is Prefixed an Essay on the Varieties of the Human Species* (Philadelphia: 1839); cited in Reginald Horsman, *Race and Manifest Destiny: The Origins of American Racial Anglo-Saxonism* (Cambridge: Harvard University Press, 1981), pp. 116-129.

32. Alfred Russel Wallace, "The Development of Human Races under the Law of Natural Selection," *Anthropological Review* 8 (May 1864); rpt. *Contributions to the Theory of Natural Selection: A Series of Essays* (London: 1870).

33. See Barbara Groseclose, "The 'Missouri Artist' as Historian," in Paul C. Nagel, et al., ed. *George Caleb Bingham* (New York: Abrams, 1990), pp. 56-60. Also see Schimmel, "Inventing the Indian" (note 10 above), pp. 148-89.

34. Herbert Spencer, *Social Statics* (1850; rpt. New York: Appleton, 1910).

35. Henry Carey, *Principles of Social Science* (Philadelphia: 1871). For an analysis of Carey, see Daniel Walker Howe, *The Political Culture of the American Whigs* (Chicago: University of Chicago Press, 1979),

pp. 108-22, and Paul K. Conkin, *Prophets of Prosperity: American's First Political Economists* (Bloomington: Indiana University Press, 1980), pp. 261-307.

36. For economic policy in the mid-nineteenth century United States, which redistributed wealth into the hands of entrepreneurs, see Horwitz, *Transformation of American Law* (note 5 above), pp. 253-54.

37. Cronon and White, "Indians in the Land" (note 22 above), p. 21.

38. For the European ecological conquest of North America, see Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (New York: Cambridge University Press, 1986). For the responses of Native Americans, see George E. Hyde, *Indians of the High Plains: From the Prehistoric Period to the Coming of Europeans* (Norman: University of Oklahoma Press, 1959), pp. 57-60; Preston Holder, *The Hoe and the Horse on the Plains: A Study of Cultural Development among North American Indians* (Lincoln: University of Nebraska Press, 1970), pp. 90-109; Francis Haines, "The Northward Spread of Horses Among the Plains Indians," *American Anthropologist* 40 (1938): 429-37; Symmes Oliver, *Ecology and Cultural Continuity as Contributing Factors in the Social Organization of the Plains Indians*, University of California Publications in American Archaeology and Ethnology vol. 48, no. 1 (Berkeley: University of California Press, 1962), pp. 6-18; John C. Ewers, "The Influence of Epidemics on the Indian Populations and Cultures of Texas," *Plains Anthropologist* 18 (1973): 104-15; Richard White, "The Winning of the West: The Expansion of the Western Sioux in the Eighteenth and Nineteenth Centuries," *Journal of American History* 65 (September 1978): 319-43.

39. See Richard I. Dodge, *The Plains of the Great West and Their Inhabitants* (New York: 1877); E. Douglas Branch, *The Hunting of the Buffalo* (Lincoln: University of Nebraska Press, 1962).

40. Remi Nadeau, *Fort Laramie and the Sioux* (Lincoln: University of Nebraska Press, 1967), pp. 20-42; Joseph Jablow, *The Cheyenne in Plains Trade Relations, 1795-1840* (New York: Monographs of the American Ethnological Society, 1950) vol. 19: 1-50, 78-89; Oscar Lewis, *The Effects of White Contact on Blackfeet Culture with Special Reference to the Role of the Fur Trade* (New York: Monographs of the

American Ethnological Society, 1942) vol. 6: 34-59.

41. Flores, "Bison Ecology and Bison Diplomacy" (note 2 above), pp. 480-82, suggested a number of ecological factors such as competition from horses for pasturage, bovine diseases, fire, and wolf predation that, combined with the pressures of market hunting, may have killed off many bison in the mid-nineteenth century. Chief among those factors was a drought in the late 1840s and early 1850s that likely reduced the bovine carrying capacity of the Plains significantly. The problem resembled that of commercial fisheries in California that ignored changing environmental conditions and pressed on with unsustainable harvests. See Arthur F. McEvoy, *The Fisherman's Problem: Ecology and Law in the California Fisheries* (New York: Cambridge University Press, 1986), pp. 156-84.

42. Alfred J. Vaughan, *Annual Report of the Commissioner of Indian Affairs* 33rd Cong., 2nd Sess., 1854, S. Exdoc. 1 (Serial 746), pp. 290-91.

43. Columbus Delano, *Report of the Secretary of the Interior* 42nd Cong., 3rd Sess., 1872, H. Exdoc. 1 (Serial 1560), p. 5.

44. James W. Throckmorton, 23 February 1876, *Congressional Record*, 44th Cong., 1st Sess., 1239.

45. Dodge, *Plains of the Great West* (note 39 above) p. 155.

46. John R. Cook, *The Border and the Buffalo: An Untold Story of the Southwest Plains* (Chicago: Donnelley, 1938), pp. 163-64. See also Mari Sandoz, *The Buffalo Hunters: The Story of the Hide Men* (New York: Hastings, 1954), pp. 172-73.

47. Greenbury Fort, James Garfield, 10 March 1874, *Congressional Record*, 43rd Cong., 1st Sess., 2107.

48. Sir William Butler: *An Autobiography* (New York: Scribner, 1913), p. 97.

49. Charles Kappler, ed., *Indian Affairs: Laws and Treaties* Vol. 2 (Washington: Government Printing Office, 1904): 977-89.

50. J. Wright Moorar, "Buffalo Days," as told to James Winford Hunt, *Holland's* (1933), quoted in Wayne Gard, *The Great Buffalo Hunt* (Lincoln: University of Nebraska Press, 1968), p. 132; Rachel Sherman Thorndike, ed., *The Sherman Letters* (New York: Scribner's, 1894), p. 320.