

“Teaching American History”
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“Frontier Agriculture and the Environment”

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1. Environmental History

American popular culture gives us an unrelentingly positive view of the white pioneers who settled the trans-Appalachian frontier. From the Middle Tennessee area’s public history sites to Fess Parker’s turns as both Daniel Boone and Davy Crockett on the Disney television series, pioneers were hardy souls who created American civilization out of the wilderness through hard work and ingenuity. Their bequest to us, we assume, was entirely beneficial, a proud heritage we should aspire to live up to.

A few cranky academics, though, have tried poking holes in the pioneer legacy. They have argued that along with all the coonskin caps frontiersmen left unhealed wounds and unsolved problems. Most of us in the teaching profession are familiar with the frontier’s history of violent racial conflict. American pioneers developed a nasty streak of anti-Indian racism, and worked successfully to kill or drive Native Americans off the new nation’s western frontier. Culminating in Tennessee’s own Andrew Jackson forcing the southern tribes onto the Trail of Tears, frontier settlers were the driving force behind the United States’s ugly relations with its Indian neighbors.

Another attack on the reputation of the pioneers is a little less known, though – the critique of their environmental record. According to numerous observers from the period, those hardy pioneers tore a wide swath through the trans-Appalachian West, laying waste to trees, animals, and even the soil itself as they went. Most eastern travelers felt the pioneer’s squandering of the nation’s natural resources would come to an end when lazy and ignorant frontiersmen were pushed out by civilized, hard-working folk. Yet Wilbur Jacob’s, in his 1978 essay “The Great Despoliation:

Environmental Themes in American Frontier History,"¹ argues that the dubious ecological legacy of the pioneers was still with us near the end of the twentieth century. Pioneers, he asserts, exhausted our nation's precious natural resources out of simple greed for a quick cash return. Their exploitive attitude toward nature was reflected by the government, which spent the nineteenth century transferring public lands to greedy corporations at bargain rates. According to Jacobs, the environmental damage done by the pioneer mentality of kill, cut, plow, and then run has still not been repaired a century after the frontier came to a close.

In addition to forcing us to reconsider the pioneer heroes of popular legend, "The Great Despoliation" is a good starting point for understanding the field of environmental history. Environmental historians like Jacobs argue that the landscape around us has a history. To understand that history we need to consider the relationship that human beings have to the natural world. Jacobs' piece is older, of course, and reflects many assumptions that environmental historians are moving beyond. Nature, for Jacobs, is a static entity that functions best when left alone - Native Americans are environmentalists because they seem to have made so few changes to the American landscape. The story of human interaction with Nature is one of lesser or greater degrees of destruction that we inflict on the environment. In the past quarter-century, ecological science and environmental history have largely moved beyond this perspective. Nature, we now understand, is not static or delicately balanced. It is

¹Wilbur R. Jacobs, "The Great Despoliation: Environmental Themes in American Frontier History," *Pacific Historical Review* 1978 47(1): 1-26.

continually changing and developing, and humanity is just one more species transforming its environment. Rather than “leaving no trace,” we should strive to build a *sustainable* relationship between our technology, economy, institutions, culture, and the other species we share the planet with. Acknowledging this, environmental history can become a more complex and dynamic field of study. In that vein, then, we can go back to Jacobs’ condemnation of the pioneers and reassess their legacy for the American landscape and our nation’s history.

2. Economics of Frontier Farming

There are many ways in which scholars try to define a “frontier:” the leading edge of settlement expansion, a zone of cultural interaction, and many others. When you are trying to understand a frontier in environmental terms, it is best to look at it in the sense used throughout the 19th century by the U.S. Census Bureau: A frontier is a region of low population density.² This definition clearly makes much of eastern North America a frontier during the eighteenth and early nineteenth centuries. Native American communities were small in number and size compared to the centers of Indian life in Central America. Black and white population densities went down steadily the further one got from the eastern seaboard.

²The Census Bureau defined the frontier as the line west of which the average population dipped below two persons per square mile. I will not be adhering strictly to this number, but to the broader idea of low population density.

This low population density in the western United States during Era IV was crucial in shaping how human beings lived in and shaped the natural world around them. The key economic and environmental fact that people of all races faced was a heavy surplus of land over labor. Forests stretching for miles surrounded isolated communities on both sides of the “frontier line.” In this situation, it made economic sense for people to get the most return from their tiny stocks of human labor. Virginia planters, for instance, were in the habit of calculating their tobacco yields not in terms of crop per acre, but crop per worker, since the latter was their most precious asset. The land and the resources on it, on the other hand, could be wasted because there was always more. Where Europeans build with stone to preserve precious woodlots, Americans built their cabins out of wood and replaced them when they rotted away. If the cabins let in winter drafts, Americans compensated by feeding the forests into their enormous fireplaces. Even when they did not need wood, they hacked away the forest from around their farmsteads for little reason other than driving insects away from their doors.

Any ecosystem’s biotic productivity begins with the energy that its plants photosynthesize from the sun. That energy then flows from plant growth into supporting the host of other organisms that graze on or decompose those plants. When human beings pry food and shelter from the natural world, we try to divert that energy away from its previous pathways onto ones that lead to our own stomachs or wallets. Early American hunters killed the deer before wolves and wild cats could eat them. Cattle owners drove the deer from the forest so that their livestock monopolized the grazing. Farmers cut down the trees so that the crops they planted got all the sunlight. All this diversion takes work, of course, and the more labor one puts in, the more energy one can capture and control. There is a catch, though. Ecosystems concentrate energy as one moves up the food chain, making it fairly easy to “skim the cream” off the top, getting a high reward for little labor. Yet as one works harder transforming the ecosystem, the returns on one’s labor steadily diminish.

What one *can* do by investing more labor is increase the returns one gets from a single piece of land. Hunting can provide a lot of food without too much work, but one needs a *lot* of territory to support game animals. Agriculture, on the other hand, requires very little land area to produce a great deal of food. But it is a lot of work to chop down the trees, pull out the stumps, plow the soil, plant, weed, and harvest the crops, and on and on. What one has then is the opposition between what scholars in various disciplines call *extensive* and *intensive land use*. Hunting is extensive because it invests small amounts of labor over large stretches of land. Agriculture is intensive because it invests large amounts of labor in small pieces of land. If one is on a frontier with a low population density, land and its resources are cheap while labor is expensive, so it makes sense to practice extensive land use. As the country is settled and population increases, it makes more sense to invest the now abundant labor in wringing every bit of productivity one can from the increasingly scarce land. As a result, human beings drift toward more intensive land use as population increases. Our fourth president, James Madison, explained the history of Virginia agriculture in this very way in a speech he gave in 1818. Madison reminded his listeners that,

“Whilst there was an abundance of fresh and fertile soil, it was the interest of the cultivator to spread his labor over as great a surface as he could. Land being cheap and labor dear, and the land co-operating powerfully with the labor, it was profitable to draw as much as possible from the land. Labor is now comparatively cheaper and land dearer. Where labor has risen in price fourfold land has risen tenfold. It might be profitable, therefore, now to contract the surface over which labor is spread.”³

³James Madison, “Address to the Agricultural Society of Albemarle, Virginia,” 1818. Reprinted in Letters and Other Writings of James Madison, v. 3, Philadelphia: J. B. Lippincott and Co., 1865.

3. Native American Landscapes

Native Americans in eastern North America had very low population densities by the eighteenth and early nineteenth centuries. The most apparent cause for this were the epidemic diseases brought to the new world by Europeans. Infections like smallpox, influenza, and the like had been devastating Indian communities since the early 1500s. As population levels went down, the need to pursue intensive land use diminished. When De Soto marched through the South in the 1530s, he found settled agricultural peoples with large towns surrounded by miles of crop fields. French explorers and traders in the Mississippi Valley still found sizable towns and some large-scale farming among the Natchez and other native groups. Yet by the time of the American Revolution, though, most southern tribes were practicing shifting cultivation and relied heavily on hunting for both food and a commercial income. Tribes like the Creek and Cherokee lived in small “towns” near their agricultural fields. These core territories, though, were surrounded by large hunting areas that the tribe claimed. This state of low population density and extensive land use came to an end as white hunters, soldiers, and farmers moved in from the east, forcing tribes to defend or concede their increasingly precious hunting grounds and turn back to agriculture.

4. Slash & Burn Farming

Now, as one might guess from the historical change in Indian land use in the South, extensive and intensive is not an either/or choice. Instead it is a spectrum, as people with a declining population slowly abandon intensive methods, or people with an increasing population slowly develop ways to invest more labor in the hopes of increasing yields from valuable land. So different types of agriculture can be looked at as extensive or intensive. Agriculture involves diverting the natural productivity of an ecosystem away from the native vegetation and animals and toward the crops and livestock that humans want to grow. That diversion takes labor, of course, and the

question is: How much work does one do transforming the ecosystem compared to the yields that result? The basic principle remains that of diminishing returns – initially, small amounts of labor gives a large return, but the more work put in, the less the “land cooperated with the labor,” as Madison put it.

White pioneers moving into the sparsely settled interior of North America, then, succumbed to the same economic logic as Native Americans being decimated by disease. They shifted their land use from intensive to extensive. Many of the methods frontiersmen developed, in fact, were borrowed from the native tribes they came in contact with. Eighteenth and early nineteenth-century settlers practiced a kind of extensive, low-labor farming that scholars generally refer to as “shifting,” or more concretely, “slash-and-burn” cultivation.

Here is how slash-and-burn worked: If one wants to grow crops, one needs to make sure sunlight gets down to the plants. What’s the easiest way of doing that? *Girdling* – use an ax to cut a large circle of bark from the lower trunk of the tree. This kills the tree and the leaves, letting sunlight down to the forest floor where crops can be planted. Some pioneer farmers left it at that, planting corn and other crops amidst the dead trees. Most, though, followed Indian experience and figured out that a great deal of a forest ecosystem’s nutrients were stored in the trees, rather than the soil. So, was there an *easy* way to get those nutrients into the soil where crop plants could take them up? Yes – cut down the trees and burn them on the ground. This releases some crucial nutrients into the soil – potassium and phosphorus – and also reduces the acidity of the soil. Chopping down trees is not terribly hard work. So, what *was* hard work for frontier farmers? Getting stumps out of the ground – one has to dig around them, attach chains and pull them out with oxen. It is an enormous amount of backbreaking work, and most pioneer farmers did not bother. They just burned the tree trunks on the ground and planted in between the stumps. This meant, of course, that plows could not get through all those tree roots still in the ground. Most frontiersmen cultivated their newly-cleared “fields” with hoes. One just pulled the topsoil and ashes into a small hill

and planted corn, tobacco, and other crops in the hill. This hill will be very fertile, have a nice soil structure, and gives (at least for a few years) an abundant return for the amount of work put into it.

5. Frontier Animal Husbandry

Of course, even this level of labor was a dubious commitment to some people on the frontier. Many settlers found that hunting was a better investment of their labor. It meant less work (at least for the men) and more return in terms of food for the table or cash from skins or meat. Famous frontiersmen like Daniel Boone and Davy Crockett were notoriously sloppy farmers, preferring to head out on long hunting trips where they could eat better and make more money than by hacking a small clearing from the forest to plant some scraggly corn. As long as forests full of deer surrounded them, dropping the ax and hoe for the long rifle was a tempting proposition.⁴

Frontier farmers also adapted European livestock to the new circumstances of abundant land. Instead of going to all the effort of clearing and planting pasture, building barns, feeding these animals corn and grass, and so on, pioneers just let their cows and pigs run loose. The animals lived off the grazing in the forest and old fields, and when the pioneers needed some meat, they just went out and rounded up the beasts (or shot them, if they had gotten a little too wild). This is the reason why hogs played such a big role in the frontier diet. They go feral quicker and more successfully than cattle or sheep, because they are willing to eat anything and are generally much smarter. Now the hogs that evolved from this – “razorbacks,” or “piney-woods rooters” as settlers called them – were scrawny, mangy, and mean. But while one might not get plump hams or juicy bacon from them, they required very little work in exchange for the meat that one did get. The main things pioneers did do to improve the

⁴See John Mack Faragher, *Daniel Boone: The Life and Legend of an American Pioneer*, (New York: Henry Holt, 1992), for a survey of the prototypical frontiersmen’s decision-making.

range for their animals were both low-labor compared with clearing and planting pasture: They killed off dangerous predators like wolves (although a wild hog puts up with nothing from anyone, making the job less urgent), and they periodically set low-level ground fires in the forests around their cabins and fields to clear off underbrush and stimulate new plant growth.

In acknowledgment of the reality of how pioneers got a good deal of their food, most frontier communities maintained an “open range.” Under this system, farmers were legally required to fence in their *crops*, rather than their animals. Most counties and towns on the early frontier appointed local men to petty offices as “hog-reeve” (who was in charge of chasing down stray hogs and establishing their ownership), and “fence-inspector” (who certified that farmers maintained adequate fences around their crops in case they made a claim for damages from trespassing animals). These arrangements would only change later in the nineteenth century, when intensive farmers began complaining about wandering hogs and cattle grazing on their increasingly valuable land.

5. The Frontier Environment

It was this kind of extensive land use that shaped the landscape and environment on the early American frontier. We should not think, of course, that the minimalist tendencies of extensive land use meant pioneers did not make dramatic and lasting changes to the American landscape. The enormous stretches of hardwood forest in the eastern portion of the North American continent were largely removed by girdling and timber-cutting. Environmentalists today are in a desperate struggle to save a few last remnants of “old growth” forest in the Appalachians (and even those are of dubious value) because frontier farmers removed nearly all of the old trees during the eighteenth and nineteenth centuries. The spectacular transformation of the habitat of the eastern woodlands had impacts throughout the region’s ecosystems. Within the animal kingdom, the loss of habitat was reinforced by the promiscuous hunting habits

of frontier settlers. Whether motivated by income from fur and skins, or by fear of predators, hunger for meat, or the love of sport, frontiersmen ripped apart food chains that, despite our best efforts in state and national parks, we have never been able to reassemble. Indeed, they probably never will be reassembled, as Europeans and Africans have imported a host of new organisms into North America: some intentionally, like cattle and hogs and wheat, some unintentionally, like bluegrass and a host of diseases afflicting humans, animals, and plants, and some intentionally with unintended consequences, like kudzu.

It is that third category of introductions that most interests modern environmental historians, and defines what I said earlier about the evolving relationship between human beings and the natural world. There is never a perfect fit between what we want the natural world to be and what we, in fact, turn it into. Our understanding of the ecosystems around us is terribly limited, and we are divided and vacillating about our goals. So there is not a simple path of causation – either from our minds to the environment we create, or from the natural world to our society and culture. Instead, we set out to alter ecosystems to fill what we perceive to be our needs. Our actions transform these ecosystems in ways we intended, and in ways we did not. We then are forced to adapt to the new landscape we have created, and to set about working on it again to meet our ever-changing desires. So one needs to go beyond asking how frontier agriculture changed the American landscape. It is also important to know how that new landscape shaped the lives of the people who lived in it – and how those changes effected the course of American history. In the case of frontier agriculture, that relationship was particularly dynamic because extensive cultivation could not support the kind of settled agriculture Europeans idealized.

Fields cleared by slash-and-burn methods were only fertile for a short time. Topsoil exposed to the rain eroded away into the streams and rivers. Crops took nutrients out of the soil which were then carted away for food or sale, leaving sterile ground behind them. Pioneer fields supported crops for a few years, after which they

had lost so much fertility that only briars, broom sedge, and other weeds could grow on them. Yet farmers found that as long as land prices remained low, abandoning exhausted fields and clearing new tracts from the forest was the best investment of their labor. American farmers certainly knew of methods by which they could not only maintain soil fertility year after year, but even increase it. But those methods ran into the rule of diminishing returns, and entailed an enormous amount of work when compared with clearing “new grounds.” As European and American farmers confronted rising land values and scarce resources, they adopted several techniques for stabilizing soil fertility. These included:

Crop Rotations – European farmers took their fields out of crop cultivation in a regular rotation and planted them in leguminous pasture grasses – plants that drew nitrogen from the air into the soil. For frontier farmers, though, taking fields away from cash or food crops was a waste of the labor they had spent clearing them. Instead, they just used crop progressions on their cleared fields, moving from demanding crops like tobacco and corn to less demanding ones like rye and oats as the seasons past and the soil in their clearing lost its fertility.

Manuring – Pasture grasses also became feed for livestock, who, when fenced into a pasture or penned in a barn, produced prodigious amounts of manure that could be plowed back into the soil to restore nutrients. For frontier farmers, though, planting pasture grass meant work, penning in livestock meant a great deal of work, and collecting and hauling manure was an enormous amount of smelly, unpleasant work. It was much easier just to move onto a new clearing and access the stored nutrients of the forest through another round of slash-and-burn.

Deep Plowing – Plowing up the soil extended the life of a field by turning lower layers of the soil up into the crop zone. Building large furrows also slowed soil erosion by channeling runoff between the ridges. For frontier farmers, though, any kind of plowing meant they had to confront the back-breaking task of stump-pulling.

So frontier farmers typically farmed their clearings till the soil was depleted from

exhaustion or erosion. They then cleared more of their own land, or else bought new tracts of forest to start the process all over again. This is why pioneers surrounded their fields with worm fences – the diagonal setup meant they did not have to dig postholes, and the fence was easy to pick up and move when new land was cleared. On the early frontier, fence rails outlasted the crop fields they marked. The clearings pioneers left behind became what were called “old fields,” where weeds invaded the bare soil. In the years after being abandoned, these old fields underwent ecological succession, as species followed species -- grass was replaced by scrub, scrub by loblolly and slash pine, and finally, after 75-100 years the pine by hardwoods like oak, hickory, maple, and chestnut as the forest returned to something approximating its original state.

Scientists call the landscape that resulted from all this clearing and abandonment a “Patchwork.” If one walked through a frontier district during this period, one would have seen a handful of semi-cleared fields were surrounded by a maze of old fields and second-growth forest in varying states of succession. Frontier America looked nothing like the intensively-farmed countryside of Great Britain, with its neat cottages, well-tended fields, and fat cattle. Instead, rural America was a scraggly mess of run-down shacks (why build something expensive and permanent when the family would just move on in another 10-15 years?), unkempt fields with measly crops poking out from amidst the tree stumps, and all surrounded by a host of old fields. Eastern American and especially European travelers were appalled by what appeared to them an unkempt landscape. They concluded that Americans in general, and pioneers in particular, were just too lazy to put in the honest work needed to clear their fields of stumps, pen in their mangy livestock, and conserve their soils. Yet these observers were thinking of good farming in terms of long-term crop yields *per acre*, as their background in heavily-populated regions had taught them to do. Frontier agriculture made efficient use of human labor, but was wasteful of frontier land and resources.

6. Families and Farms

And yet the economic logic behind frontier agriculture was reinforced by the circumstances and outlook of early American farmers. Many of their ancestors had been peasant farmers in Europe before being evicted from the lands of the aristocracy by enclosure or rack-renting. They learned the lesson that secure title to landed property was essential to maintaining a family, and came to British North America in the hopes of achieving that. In British society, owning land meant status as a “yeoman” farmer – a solid middle class respectability that included basic political rights.

Yet with their meager capital resources going towards purchasing even the cheap lands in eastern North America, little was left to invest in improving the value of their property. In particular, these newly-minted yeoman farmers were short of labor. Slaves were expensive and wage workers almost non-existent. Most had to rely on their own hands and backs and those of their families. With little or no spare capital or labor, extensive cultivation became the rule of the day for these “family farmers” across eastern North America. When the methods of intensive agriculture were first introduced during the early nineteenth century, they largely came from the U.S.’s wealthier gentlemen, who learned them from books and periodicals imported from Europe. These men in turn railed against the stiff-necked ignorance of the common farmer, apparently unable to comprehend why a poor family farmer would not just invest extra money in fertilizer and improved seed and livestock, or just work his children a little harder to conserve soils.

Instead, yeoman farmers hungered after more and more land. This desire was doubly reinforced by the cheap land available across the region. Children recognized the low cost of land and the high value of their labor, and none too subtly threatened that if their fathers could not provide them with an inheritance of landed property, they could go out and acquire it on their own. As a result, fathers hoping to keep their families together in the new world had very quickly to abandon the old English custom of *primogeniture*, by which the eldest son inherited the entire estate, and the other children had to work for him or fend for themselves. Instead, Americans adopted the

system of *partible inheritance*, whereby all the male children received equal portions of the estate (and generous portions were typically handed over to daughters as well). Farmers already exhausting their soils with extensive cultivation methods also had to keep an eye on the future, and be prepared to provide even *more* land when their children came of age.

We have an image in our minds of pioneers being single men, or at least very young families, who went west to establish themselves in the world. In fact, frontier migration was a middle-aged, or even old man's game. He farmed in the east, build up some capital, then spent it on acres of frontier forest as his sons reached maturity. Daniel Boone's family is an excellent example of this process. Boone himself was born to Quaker parents in eastern Pennsylvania. In 1750, when Daniel's father, Squire Boone, was fifty-five and Daniel was seventeen, Squire relocated the family to the new frontier of western North Carolina, where he purchased several thousand acres of uncleared forest that he gradually parceled out among his sons. Daniel Boone then remained in North Carolina until he was forty-one before leading the expedition that established Boonesborough in Kentucky. The party that blazed the Wilderness Road under Boone's leadership consisted largely of Boone's own sons, his in-laws, and various other family connections who hoped to acquire land for themselves from the adventure. Boone went bankrupt in Kentucky, and so in 1799, when he was sixty-five, he led his extended family out of the U.S. into Spanish Missouri, where he obtained a large land grant from the local governor and set his sons up on frontier farms.

Try for a moment to imagine the economic world of pioneer farmers like the Boones. Because they are short on labor and capital, they practice a kind of extensive farming that quickly exhausts the ecological resources of their property. So they need more land. They also have to provide for their hordes of children, who all want property of their own and threaten to leave, depleting the family's precious labor force, if they do not get it. So they need *more* land. For their part, the sons and heirs start off farming with little labor and no capital, so they reproduce the farming techniques they

learned from their fathers. They exhaust the resources of their own property, and they start having large families of their own. So the next generation needs *even more* land. Where are they going to find land that is both low in price, *and*, ecologically rich enough to reward the kind of extensive farming they have to practice? Only in the uncleared forests in the interior of the continent. So the pressure builds up, economic and environmental – go west, go west! This pressure became an overwhelming force that dominated the life of the young republic. When Jefferson bought Louisiana from Napoleon, he thought it was a place Indian tribes could be removed to, because no white men would get out there for decades and decades. In the longer run, he thought the territory would provide enough land to supply the nation’s family farmers for, quite literally, *centuries*. Of course, Daniel Boone and his family were out there before the U.S. even bought it. And as it turned out, Congress was dividing the Purchase up into territories and states less than two decades after the United States bought it.

7. Frontier Farming and the United States in Era IV

The continual need for more and more fresh land to replace exhausted and eroded old fields, and to supply coming generations with new property to continue this system, was one of the foundations of the mind set of white Americans during Era IV. In turn, the leaders of the young American Republic realized that if they were going to get and maintain the support of the mass of the people, they were going to need to fill that need. Unlike the British imperial authorities who had reported to aristocrats and merchants back in Europe, American statesmen answered to a swarm of pioneer farmers and people who hoped to become pioneer farmers. The territorial expansion of the United States and the westward movement of its people was largely the result of the environmental problems created by frontier farming’s strategy of extensive land use. Early nineteenth-century American politics and diplomacy were engines that ran on a fuel of fresh soils under uncleared western forest.

In the first place, pioneer land hunger dictated U.S. policy toward Native

Americans throughout this period. Before the Revolution, British imperial authorities had been unsympathetic toward white settlers' desire for land, seeing it mainly as a source of conflict with native tribes that the government in London would have to settle with expensive negotiations and troop deployments. As a result, they chose usually to blame aggressive settlers for conflicts, and tried, as with the Proclamation Line of 1763, to restrict settlement expansion. The new government of the United States worried about the problem in the same way, as evidenced by a congressional committee report analyzing the country's problems with Native Americans in 1787:

*"An avaricious disposition in some of our people to acquire large tracts of land, and often by unfair means, appears to be the principal source of difficulties with the Indians . . . various pretences [sic] seem to be set up by the white people for making those settlements, which the Indians, tenacious of their rights, appear to be determined to oppose."*⁵

Yet despite their suspicions about western motives, American politicians were unable to resist the popular demand for an anti-Indian policy. Making an about-face, they began seeking public approval by adopting an aggressive, multi-faceted strategy to strip Native Americans of their land.

American leaders, particularly men like the first Secretary of War Henry Knox, third President Thomas Jefferson, and Indian agents like James White and Benjamin Hawkins, tried to ease their consciences by setting up elaborate schemes to "civilize" Native Americans. Yet under the guise of this "benevolence," their plans also served the interests of frontier settlers hungry for Indian land. For early American leaders, "civilization" meant settled agriculture, so they used gifts of cash, seed, and farm equipment to encourage tribes to abandon hunting for cultivation. Such a move, of course, meant that native peoples would need much less land to support themselves

⁵"The committee consisting of Mr. Kearney, Mr. Carrington, Mr. Bingham, Mr. Smith, and Mr. Dane, to whom was referred the report of the secretary at war, and sundry papers relative to Indian affairs in the Southern Department; and also a motion of the delegates from the state of Georgia, report ..." *Journals of the Continental Congress*, (New York, 1787), 587.

(intensive agriculture versus extensive hunting), and the excess could be handed over to the U.S. for distribution to white farmers. As Jefferson put it in an 1803 letter to a territorial governor on the frontier:

*"We wish to draw [the Indians] to agriculture ... When they withdraw themselves to the culture of a small piece of land, they will perceive how useless to them are their extensive forests, and will be willing to pare them off from time to time in exchange for necessaries for their farms and families."*⁶

In fact, the perception Jefferson hoped for only took hold among some factions in the eastern tribes. Across the nation, Indian nations split into warring factions as wealthier chiefs who had committed themselves to agriculture bargained away hunting grounds in exchange for cash, gifts, and promises of peace. Opposing them were younger warriors who needed hunting grounds to support their families and establish their manhood. These kinds of divisions are crucial to understanding Tennessee's frontier history in particular. Most early attacks on white settlers along the Cumberland River were carried out by the "Chickamauga," a faction of the Cherokee. Many Cherokee rejected the 1775 Treaty of Sycamore Shoals, in which Cherokee elders sold their claims to the hunting grounds of Kentucky to Richard Henderson. Under the leadership of a young war chief named Dragging Canoe these dissidents left the Cherokee towns on the Little Tennessee and migrated down to Chattanooga, where they carried on a war of resistance against settlement expansion. The Creek War of 1813-14, in which Andrew Jackson cemented his reputation, sprang from a similar source. Creek opponents of Benjamin Hawkins' agricultural program revolted against leaders who had adopted agriculture and bargained away hunting grounds. Calling themselves the Redstick, they burned the farmsteads and killed the cattle of their Creek opponents before

⁶Thomas Jefferson to William Henry Harrison, 1803, Merrill D. Peterson, ed., *Thomas Jefferson: Writings*, (New York: Literary Classics of the U.S., 1984), 1117-1119.

launching raids against white settlers encroaching on Creek hunting grounds in the Tennessee Valley.

In the end Indian rebels were proven right, as white American land hunger overwhelmed the somewhat charitable intentions of the civilization schemes. Western leaders and their constituents demonized Native Americans and set their sights on completely removing them from the southern forests to make way for white farmers. Frontier politicians like Henry Clay and Andrew Jackson interpreted the War of 1812 not in terms of trade rights or impressment, but as a chance to even scores with Indian tribes by striking at their supposed backers, the British. The ultimate goal, though, remained seizing Indian hunting grounds and settling them with white farmers. After defeating the Redstick Creek at the Battle of Horseshoe Bend in 1814, Jackson told the Tennessee volunteers under his command:

*"The fiends of the Tallapoosa [the Redstick] ... have disappeared from the face of the Earth ... the wilderness which now withers in sterility and seems to mourn the desolation which overspreads it, will blossom as the rose & become the nursery of the arts."*⁷

After he forced land cessions from Creek leaders (few of whom had not participated in the revolt), many of Jackson's officers and men migrated to Alabama. They bought land there from Jackson's friend and military right-hand-man, John Coffey, who finagled an appointment from the federal government as head of the Huntsville land office. When Jackson became President, of course, he continued his land-grabbing strategy by forcing through the final removal of tribes throughout the U.S. to Indian territory in Oklahoma, clearing the way for a great rush of white settlement in the upper Midwest and "old" Southwest.

Once they had acquired these lands, white settlers faced no pressure to intensify

⁷Andrew Jackson to the Tennessee Troops in the Mississippi Territory, 2 April 1814, reprinted in Harold Moser, et al., eds., *The Papers of Andrew Jackson*, vol. 3, (Knoxville, TN: University of Tennessee Press, 1991), 58.

their farming, and continued on with their old methods. When the famous British geologist Charles Lyell visited the coast of Georgia in 1845, he found the state's rivers running red with clay washed down from piedmont fields. His host, coastal rice planter James Hamilton Couper, attributed the erosion to the removal of the Cherokee and the flood of poor white farmers into the upcountry. Lyell concluded:

*"no sooner had the Indians been driven out and the woods of the old hunting grounds begun to give way before the ax of the new settler, than the Ocmulgee [River] ... became turbid."*⁸

In addition to seeking support from pioneers by bashing neighboring Indian tribes, the young Republic's political leaders also supported frontier land-hunger by rapidly expanding the borders of the nation in order to make land easily available to settlers. Jefferson conceived of the Louisiana Purchase as a means of providing land for generations of farmers, as noted above. And when western settlement progressed faster than Jefferson had anticipated, Polk's administration pushed further, annexing Texas, cementing a claim to the Oregon Territory, and going to war with Mexico to grab the modern Southwest. Under intense pressure from western farmers, federal administrations also worked to get this land quickly and cheaply into private hands. Jefferson's administration in particular began a policy of liberally distributing public lands that culminated several decades later with the Homestead Act of 1862, which promised *free* land in small chunks to frontier settlers.

Even these aggressive actions on the part of the federal government were not

⁸Charles Lyell, *A Second Visit to the United States of North America*, 2 vols., (New York: Harper and Bros., 1849), I, 256.

enough to keep land-hungry settlers fully happy with the U.S. Back in the 1790s, western land speculators had secretly flirted with the Spanish authorities in New Orleans. Daniel Boone himself abandoned the U.S. for a Spanish land grant in Missouri in 1799. The “founding fathers” of Texas refused to wait for U.S. expansion when they poured into Mexican territory during the 1820s and 1830s. Right down to the Civil War, Southern politicians and filibusterers continued to scheme to conquer or annex territory in central America and the Caribbean. To the north, thousands of American farmers abandoned the U.S. for Canada during the 19th century in their search for fresh soils under virgin forests. On the frontier, loyalty to the United States was conditional on the federal government’s ability to open new land for extensive farming.

Even more dangerously for the Republic, the race for western lands helped spur the sectional crisis that led to the Civil War. Southern planters in particular worried that the soil erosion and exhaustion brought on by extensive staple crop agriculture would undermine southern society. Several southern statesmen privately blamed Nat Turner’s Rebellion of 1831 on the soil exhaustion that had been decimating the tobacco farms of eastern Virginia since the Revolution. Thousands of small farmers had abandoned the state for Kentucky and the Midwest after using up the soils on their Virginia lands. This steadily tilted the Old Dominion’s racial balance, and, many believed, emboldened Turner and his followers to revolt. Unless more land was made available to slaveholders, they believed the westward push of extensive farmers would leave planters defenseless against their slaves. The sectional crisis of the 1850s, of course, revolved largely around the issue of slavery in the western territories. Southern politicians took the most aggressive stance, working to break the Missouri Compromise of 1820 and open more unsettled territory to slavery.

For their part, northern farmers and the politicians they elected feared plantation expansion’s impact on pioneer settlement. If allowed into the western territories, they reasoned, wealthy planters with slaves would monopolize the best lands. Small farmers would be unable to acquire property, or be forced onto marginal tracts their

low-labor farming methods would quickly exhaust. Unable to profit from their land, or to acquire more for their children, under this scenario farm families would have drifted down into tenancy, wage labor, or worse – in the rhetoric of a few Republican rabble-rousers, becoming the slaves of arrogant plantation aristocrats themselves. Rallying instead around the Republican party’s slogan of “Free Land, Free Labor, Free Men,” Northern farmers used both ballots and bullets during the 1850s and 1860s to force the closure of the west to slavery entirely.

8. Teaching Environmental History

Even once you have seen the connections here, the question remains: How do you teach this? We have been dealing with some abstract scientific and economic concepts that will be beyond most primary and a lot of middle school students. I think you can approach environmental history in a way that surmounts these challenges, though. Obviously both students and the state have certain expectations about what history is. They assume it means “traditional” history – the kinds of political, economic, and military events discussed above. For these students and for the kinds of standards and tests they will face, they will learn environmental history to the extent that they succeed in connecting our relationship with the natural world to that “traditional” history. BUT, the other side of the coin is that students think that history is boring. Here, an environmental history approach can give you a real advantage. There are two basic steps, I think, to teaching U.S. history with an environmental approach that will both engage students and help them better understand the trends and events they need to learn.

What has always worked in my classes, and I suspect would be even more successful with elementary and middle school students, is working to connect students’ own experiences with the natural world with the way people lived in the early nineteenth century. Even with all of the technological changes in our daily lives since the early 19th-century, we still have a much stronger understanding and closer

connection with the fields, forests, and streams around us than we can ever really have with the words of someone like James Madison. But we both – ourselves and Madison – have seen an oak tree, touched the mixed clay soils of the American South, and watched corn and wheat growing in a field. So the first step is to find your students' own experiences with the natural world around their homes, around their school. Get them outside to talk a little bit about land use around your school – or set them off to ask their parents and neighbors about the “history” of the landscapes around their homes and other places they go regularly. How many of their families still farm? How many of them have been bush-hogging with their dads? How many of them have gone camping, or perhaps even hunting? By approaching things in this way, you get them looking at the natural world while thinking about what people *do* with the environment around them.

Next, go to the primary sources that describe the landscape of Tennessee in the 19th-century. I will include some suggestions when this talk is put up on the web site, but mention one of the best right now: Frederick Law Olmsted's *Journey in the Backcountry*. Olmsted is best known as one of America's pioneer landscape architects, the designer of Central Park in New York City. During the 1850s, though, he toured extensively in the South writing travel accounts for various newspapers. Although his writings are hardly objective – he wrote to criticize slavery and southern agricultural practices – his descriptions of the southern countryside are largely accurate and memorably vivid. After reading a few selections from Olmsted, talk with your students about what he saw, what human actions and natural factors created the landscape he saw, and how he chose to interpret it all. Olmsted is one of the best examples out there of a primary source you can use to talk about the dynamic between what people want the landscape to be and what they actually see around them.

The standards put together by Michelle Ungurait and her colleagues challenge teachers and students to put historical events in a context of economic, social, cultural, and geographic developments. Teaching the environmental history of pioneers and

Native Americans during Era IV is one of the best ways of bringing these separate themes together. My own students, though, often struggle connecting theories about ecosystems and human economics with past land use strategies and the historical events that result from them. Taking the path I just outlined for you, though, offers a less abstract way to understand the connections between the human interaction with the natural world and the events of American history.

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