Before There Was Bluegrass: Central Kentucky Prior to European Settlement

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In 1810, at the age of 76, Daniel Boone visited Kentucky for the first time in more than a decade. He barely recognized the state. Boone told John James Audubon that he “rambled about to see if a deer was still living in the land. But ah! Sir, what a wonderful difference thirty years makes in the country!” Gone were the days when “you would not have walked out in any direction for more than a mile without shooting a buck or a bear. There were then thousands of Buffaloes…the land looked as if it never would become poor; and to hunt in those days was a pleasure indeed.”¹ The dramatic decline in game animals that Boone lamented was just one of a wide range of transformations that occurred on the land in the decades after American settlement. Buffalo, deer and turkey populations declined precipitously, while domesticated species such as cattle, horses, and chickens flourished. Fields of corn and hemp replaced canebrakes and savanna-woodlands were repurposed as shaded pastures carpeted by an introduced species known as bluegrass. By 1810 when Boone returned to Kentucky, the Bluegrass Region had been converted from its presettlement state into a complex agroecosystem subject to a range of cultural and natural influences. Most interpretations emphasize the

role of human actors, but moving beyond these to also examine the ecological factors, as Aldo Leopold did, reveals a more complex story.

In *A Sand County Almanac* (1949), one of the key works in the twentieth-century conservation movement, Leopold used the American settlement of Kentucky to illustrate the importance of developing an "ecological interpretation of history" that recognized that human actions depended on, and was embedded in, a complex web of environmental factors. He concluded, “plant succession steered the course of history” because of the way invasive European bluegrass outcompeted local varieties and subsequently formed the basis of the settlers' successful livestock gazing economy. In his view “the pioneer simply demonstrated, for good or ill, what succession inhered in the land" and prophesied that history would be taught in this spirit "once the concept of land as a community really penetrates our intellectual life."²

In many ways Leopold’s prophecy has been fulfilled. The lessons of ecology on the connections between humans and the natural world have made significant inroads in society’s consciousness, and environmental history has emerged as a thriving field of research. Interestingly, however, the ecological history of the “cane-lands Kentucky” has not been the subject of sustained scholarly analysis.

² Ibid., 243.
Revisiting the topic reveals an even more complex and lengthy story of connections and interactions between different human groups and the natural world than Leopold imagined.

Instead of the pristine wilderness Leopold envisioned, explorers and settlers moved into a region with a long history of human occupation. Flourishing native groups played a significant role in shaping the environment for millennia prior to whites’ arrival. The type and scope of ecological change shifted dramatically after Europeans landed on the Atlantic seaboard. Their arrival in North America touched off changes that decimated local native cultures and altered local environmental conditions long before the first European ventured into the region. The next wave of transformation began during the 1770s when white settlers and African American slaves introduced domesticated plant and animal species, a new conception of proper land use, and the labor to enact their vision. The combination helped create a new agroecosystem that applied the ecological production of the region to agricultural ends.

Leopold overlooked the long-term transformations that resulted from the evolving relationships between humans and their environment and therefore neglected the influences people had on the landscape prior to European arrival. By

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drawing on scientific, archaeological and historical sources, this study aims to trace the dramatic changes in the landscape that occurred before American settlers arrived to create an “agroecosystem” geared toward sustaining and enriching a growing populace. What emerges is a new periodization of central Kentucky’s ecological history. The landscape was not a static background factor passively awaiting European arrival; instead it underwent multiple transformations due to the changing interactions of human and natural influences. A better understanding of these alterations allows for a better understanding of the impacts the first white settlers made on the land.

**Fort Ancient Culture (1000-1700)**

The first significant changes to the Bluegrass Region began with the Fort Ancient culture. In his discussion of the Fort Ancient economy archeologist William E. Sharp explained that “[a]griculture was the main food source, and corn, beans, and squash were the important crops. Hunting, fishing, and gathering supplemented the diet…hunting focused on large game animals such as whitetail

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5 “Agroecosystem” can be defined as a modified ecological system designed and maintained for human benefit. The concept will be discussed in more detail in the section on “Post-Settlement Transformations.” See Donald Worster, “Transformations of the Earth: Toward an Agroecological Perspective in History,” in *The Wealth of Nature: Environmental History and the Ecological Imagination* (New York: Oxford University Press, 1993), 45-63.

6 This periodization includes three general categories: the flourishing Fort Ancient culture (1000-1500), the decline of Fort Ancient society (1500-1750), and the arrival of American hunters and settlers (1750-1800). See pages 9-10 for further details. For the purposes of this study “central Kentucky” refers primarily to the geologic Inner Bluegrass, which most closely mirrors the modern political borders of six Kentucky counties: Fayette, Bourbon, Scott, Woodford, Jessamine and Clark. See A.J. Woods, J.M. Omernik, W.H. Martin, G.J. Pond, W.M. Andrews, S.M. Call, J.A. Comstock, and D.D. Taylor, *Ecoregions of Kentucky: color poster with map, descriptive text, summary tables, and photographs* (Reston, VA., U.S. Geological Survey, 2002)

deer, elk, and bear.”7 Fort Ancient culture did not exist in idyllic harmony with “nature,” but instead actively modified it. By partially clearing and maintaining rotating fields of corn, beans and squash, Fort Ancients tailored the environment to their needs.

Fort Ancient settlement patterns and agricultural techniques distributed these alterations widely, which avoided permanently degrading ecological systems. Villages were relatively small, numbering approximately 100-300 individuals, and relocated periodically.8 The temporary nature of these villages lessened the environmental impacts of native Kentuckians’ material economy. The practice of seasonal mobility in which family groups established winter hunting camps away from the main villages further spread Fort Ancient influence over an even wider area.9 Fort Ancient agriculture also followed “a shifting field strategy” in which a plot of land was only cultivated for a few years before returning to fallow.10 The extensive nature of these cultural adaptations created a landscape dotted with former fields in different stages of ecological succession and “open” patches of forest Europeans later found so remarkable.

7 Sharp,178.
8 Ibid., 167. For example, excavations at the Guilfoil site in Fayette county indicates villages contained 100-300 individuals and moved every 10-30 years, this helped avoid exhausting local agricultural land and eased pressures on game populations. Village sites might later be reoccupied or converted for agricultural use.
10 Sharp, 179.
Despite the appropriateness of the Fort Ancient cultural adaptations to the ecology of the region, archeological evidence suggests that tribal numbers began to decline as early as the sixteenth century. Sites dated from the period contained numerous artifacts of Euro-American culture, which suggested new connections with settlers on the eastern seaboard, and the number and size of Fort Ancient villages declined dramatically. Combining this evidence with reports from early travel narratives, Sharp argued the mere presence of European settlers on the continent devastated native populations. As was the case across the hemisphere, the “most important indirect effect of the European presence was the diseases they carried with them from the Old World. The common cold, small-pox, chicken pox, influenza, measles, and other diseases penetrated the mid-continent with disastrous effects long before the first ‘Long Hunter’ crossed the Appalachians into the Ohio River drainage.”¹¹ Thus, microscopic organisms struck the first blows for European “ecological imperialism” in Kentucky and significantly reduced the competition settlers like Boone eventually faced.¹²

**Pre-settlement landscape**

Scientific research into the environmental conditions in the region during the 1770s when European settlers arrived offers competing views on both the

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¹¹ Ibid., 181.
characteristics of the landscape and the factors that shaped it. One view emphasizes the relatively open aspects of the environment, describing it as open woodland with a lush understory of grasses broken up by dense canebrakes.\textsuperscript{13} It attributes these features to a complex set of factors ranging from the browsing habits of large herbivores to changes in climatic conditions over the course of millennia.\textsuperscript{14} Significantly, this view attributes little to no role to human influences in creating this pre-settlement landscape.

A competing view based on tree-ring data from remnant old growth vegetation argues the region was more heavily forested, with a thick canopy prior to European arrival and the open woodland landscape described by previous botanists was actually the product of settler influences.\textsuperscript{15} However, this view speculates that prior to the decline of the Fort Ancient culture "Native Americans may have had a substantial influence on the [Inner Bluegrass Region's] landscape, including creating and maintaining some degree of canopy openness."\textsuperscript{16}

Pioneer and settler records cannot definitively decide the debate. Thomas Hanson, who surveyed land near the North Elkhorn creek in central Kentucky in 1774, described the land as “so good that I cannot give it due praise.” He went on to

\textsuperscript{14} Ibid., 30-32.
\textsuperscript{16} Ibid., 971-972.
describe the diversity of the forest; “Its timber is honey locust, black walnut, sugar tree, hickory, ironwood, hoopwood, mulberry, ash, and some oak.”\textsuperscript{17} Others focused on the open nature of the landscape. For example, Levi Todd recalled that during the 1770s, “The face of the country was…delightful beyond conception, nearly one half of it covered with cane, but between the brakes, spaces of open ground as if intended by nature for fields. The ground appeared fertile, and produced amazing quantities of weeds of various kinds, some wild grass, wild rye and clover.”\textsuperscript{18} Some accounts noted the “pretty open woods,” and the many comments about the grazing potential of cane and wild grasses suggest the existence of a savanna-like forest in which significant sunlight penetrated the canopy to the understory.\textsuperscript{19}

The two interpretations offered by botanists differ significantly, yet they need not be mutually exclusive. The main difference between the two is one of degree, not kind. Each recognized that the land supported a mixture of open, savanna-like woodlands and denser, largely closed-canopy forests, but disagreed on the relative proportions of each. A synthesis is possible. Namely, prehistoric

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\item[\textsuperscript{17}] Thomas Hanson interview, vol. 24, box 85, Series CC: "Kentucky MSS," \textit{Lyman C. Draper Manuscript Collection}, (Chicago: University of Chicago, Department of Photographic Reproduction, 1949) on microfilm at the University of Kentucky Special Collections Department, Lexington (hereafter cited as \textit{DC}).
\item[\textsuperscript{18}] Levi Todd interview, vol. 15, box 84, Series CC: "Kentucky MSS," \textit{DC}.
\item[\textsuperscript{19}] William Clinkenbeard interview, vol. 11, box 83, Series CC: "Kentucky MSS," \textit{DC}. For an example of praise for the natural grazing potential of the landscape see John Filson, \textit{The Discovery, Settlement and Present State of Kentucky} (New York: Samuel Campbell, 1784), 23.
\end{itemize} \end{footnotesize}
climatic conditions created an open canopy forest that allowed for cane and grasses to grow in the understory, as average temperatures dropped and precipitation increased over the course of millennia some areas transitioned into a dense forest, but the other savanna-like sections remained because of the influences of both Fort Ancient agriculture and large herbivores. The decline in Kentucky’s native population after Europeans arrived on the Atlantic coast likely meant the open sections were shrinking in the period before white settlement. This trend reversed, however, when white pioneers began to clear portions of the landscape.

What emerges from this synthesis is a new periodization of Kentucky’s early ecological history. Previous scholarship has tended to argue that the arrival of Europeans during the eighteenth century was the sole cause of the region’s major environmental changes. Incorporating recent scientific findings with archeological and historical evidence, however, reveals a three-stage process of repeated transformations. Significantly, each transformation stemmed from a combination of human and ecological factors.

First, vegetation and animal populations during the Fort Ancient period were influenced by the native culture’s system of agricultural production and hunting. The system created a degree of openness in the landscape as rotating fields left relatively vacant patches behind. Second, the higher rates of disease that came with
increased trade with Europeans during the sixteenth and seventeenth centuries caused a decline in the Fort Ancient culture and reduced their impacts on the ecology of the region as the land was increasingly utilized solely as a hunting an “agroecosystem” suited to their needs.

Aldo Leopold correctly highlighted the ecological factors that contributed to American settlement of Kentucky and in the process successfully argued for a greater appreciation of the role of environmental influences on every aspect of life. In the specific case of pioneer Kentucky, accounts from the eighteenth century to the twenty-first have stressed human actors such as Daniel Boone’s adventures fighting Native Americans and presented the changes in the landscape as solely the product of Euro-American action. While Leopold’s account added an important ecological component to the story, his limited focus on a single process of secondary succession meant he overlooked much of the complexity of interactions between natural and cultural influences over the long term.

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Bibliography

Document Collections

Draper Manuscript Collection. Series CC: “Kentucky MSS.” University of Kentucky Special Collections Library, Lexington.

Periodicals

The Palladium. Frankfort, KY. Hunter and Beaumont, 1798.

Memoirs & Travel Accounts


Secondary

Andrew P. Patrick


Campbell, Julian J.N. “Historical Evidence of Forest Composition in the Bluegrass Region of Kentucky” presented at the Seventh Central Hardwood Forest Conference, Southern Illinois University, Carbondale, Illinois, March 5-8, 1989.


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Wharton, Mary E. & Roger W. Barbour. *Bluegrass Land and Life: Land Character, Plants, and Animals of the Inner Bluegrass Region of Kentucky*,
Andrew P. Patrick


