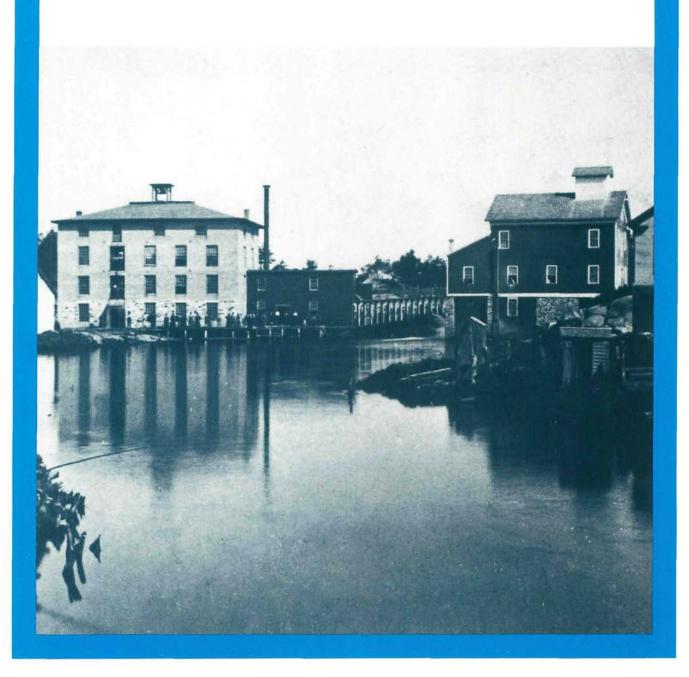
Landscape and Home

Environmental Traditions in Wisconsin

William Cronon



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The cover photograph by A.H. Armor is from the Iconographic Collections of the State Historical Society of Wisconsin. It depicts a portion of the Fox-Wisconsin canal at Portage in 1870, a place that influenced the careers and writings of John Muir, Frederick Jackson Turner, and Aldo Leopold.

Landscape and Home: Environmental Traditions in Wisconsin

By William Cronon

HINKING about "a sense of place in Wisconsin," I'm inevitably tempted—as an expatriate Wisconsinite—to reflect on my own experience of the state's landscape. My sense of this place is mainly that of a child and young adult growing up and coming of age here. My first visits to Wisconsin began farther back than I can remember, on the summertime excursions from my family's house in New England to my grandparents' cottage on Green Lake in the central part of the state. We moved to Madison when I was eight years old, so that most of my schooling and growing up happened in Madison and its environs. But my first really deep engagement with the Wisconsin landscape—with any landscape—came in a most peculiar way. When I was eleven years old, I fell in with a group of University of Wisconsin students and became a cave explorer. As I look back on that event from the distance of nearly a quarter century, I suddenly realize that spelunking—caving—was among the formative experiences of my life, and has informed my sense of place in Wisconsin ever since.

My first visit to a wild Wisconsin cave was to Pop's Cave, in Richland County. I still remember the trip quite vividly. After a drive along the Wisconsin River and through the hills of the Driftless Area, we parked our cars by an old church and headed out across the waisthigh weeds of a farmer's meadow. To reach the cave, we clambered through several barbedwire fences and climbed to the top of what then

seemed to me a very steep hill. There, we found a deep sinkhole filled with refuse. At the bottom was a narrow slit sending clouds of steam into the cold December air, and leading down into darkness. We lit our carbide lamps—modern remnants of Wisconsin's lead-mining days—and edged gingerly down into the world below.

Entering such a place is always magical. You're suddenly engulfed in darkness, and it takes a minute or two before your eyes adjust to the dim yellow glow of the lamps. If you've arrived as we did in the winter, the air at 47 degrees Fahrenheit is suddenly warm and very humid, with an indescribable odor of clay and damp stone that is like an ancient farm cellar but older and less human. Behind you, the blue light of day becomes ever fainter as you move away from the entrance. When the last glimmer vanishes and you realize that your lamp is now your only lifeline back to the outside world, you suddenly understand that you have entered a wild place, which people can visit but cannot call home. The contrast with the daylit countryside above could hardly be more stark.

As caves go, Wisconsin's are a humble and unpretentious lot. The glacier did away with most that might have existed outside the Driftless Area, so there are only a few hundred left. Our thinly bedded dolomites just can't compete with the great limestones of Kentucky or New Mexico, so our caves have none of the mileage or grandeur one finds elsewhere. More



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Turn-of-the century visitors to a cave near the Mississippi River.

than a century of human vandalism has removed most of the calcite formations they once contained. Pop's Cave is fairly typical. The steeply sloping entrance room leads down to a series of chambers and tight crawlways for a total of about eight hundred feet. Thick wet mud covers nearly every surface, and soon covers you as well. Soda straw stalactites hang next to a few dew-covered bats from various places on the ceilings, and water drips everywhere. At the far back of the cave are some wonderfully delicate rimstone pools, where calcite has built up in a series of steps to produce a frozen cascade of water, like nothing so much as a Yellowstone hot spring. Elsewhere, the floor is covered with broken slabs of stone, grim reminders that the ceiling is gradually collapsing as the cave migrates upward. Eventually, it will produce new sinkholes and then cease to exist altogether.

The attractions of such a place are completely lost on some people. You either feel them or you don't. Indeed, I should confess to some ambivalence about them myself. I never, for instance, got over a lingering fear of the dark. The thought of my lamp going out was akin to the dread of being caught without a night-light to hold back the terrors that lurk behind the closet doors of every child's bedroom. I never lost a mild claustrophobia, the fear that I might be "buried deeper cheaper," as we cavers said with our gallows wit. I worried



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A cave in the limestone rock near Maribel (Manitowoc County), 1929.

that I might catch rabies from a bat. And I was openly terrified of heights, the places where we had to use ropes and ladders to drop into dark pits in order to continue our explorations.

ALL of these, of course, were actually about a much more basic fear—the fear of dying. Caves, I think, remind us all too easily of the grave, and there are many people who have no eagerness to look into that place any sooner than they have to. But the places that most remind us of death are often the places where we also confront our own fears and discover the strength we need to live in their presence. The wilderness—

for that is what these caves were to me-is always a place of adventure, where young people especially learn to push the limits of their own courage in a struggle with nature and the self which is finally about growing up. The thought that I walked across a perfectly ordinary cornfield and suddenly dropped down into an extraordinary secret world below had all the wonder of Alice's unexpected trip down the rabbit's hole, Bilbo Baggins' near-fatal encounter with Gollum, or Lucy's discovery of Narnia at the back of the wardrobe. At the outermost edge of my daylight world, caves were a wonderful passage into the realm where childhood fantasy met grownup adventure. Even their terrors were compelling.



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Exploring Castle Rock Cave, Grant County.

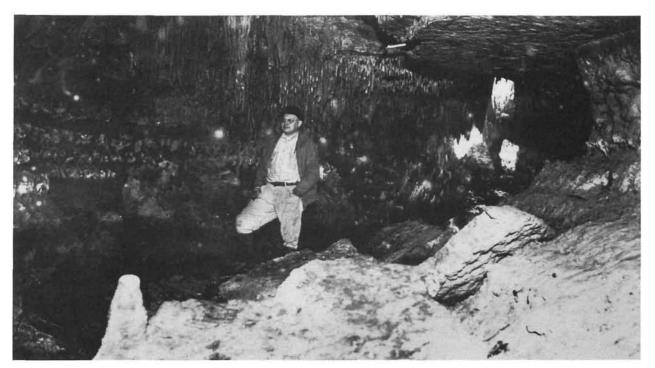
I was soon spending an inordinate amount of time driving around southwestern Wisconsin with my new spelunker friends looking for caves. In between our weekend excursions, I spent endless hours reading about caves, making lists and maps cataloging where they might be found, and planning new expeditions. My parents were wise enough not to interfere with this peculiar new hobby, and in fact even encouraged me in it without revealing too many of their own fears about it. And so I moved on from plain spelunking to speleology, the more serious study of caves, becoming involved with the Wisconsin Cave Survey in a collective effort to locate and describe all the caves of the state.

LOOKING back on that time in my life—having now gone well over a decade without entering a wild cave, and not missing it very much—I would be inclined to chalk all this up to the outlandish enthusiasms of youth were it not for something about caves and cavers that has stayed with me. Despite their fascination for the underground, cavers

spend most of their time *above* ground, traveling to their destinations. As we drove around looking for caves, we were actually learning as much about the landscape above as about the caverns below. And it was that experience—not caving, but *looking* for caves—that gave me my first purposeful encounter with the Wisconsin landscape. From it I gained the grownup sense of place that still marks me as a person.

AS you might expect, cavers look at the world in a rather eccentric way. Like anyone else who comes to an intimate knowledge of place through a particular activity or obsession, we learned to read the Wisconsin landscape with a probing but selective eye. To find caves you have to know rocks, and so we become skilled students of Wisconsin's geology—but not all of its geology.¹ There are few caves outside the Driftless Area, so we

¹Our bible was Lawrence Martin's classic, *The Physical Geography of Wisconsin* (3rd ed., Madison, 1965).



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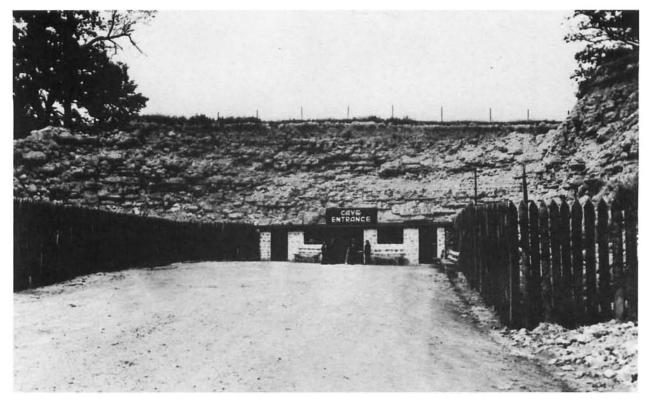
Carl Brechler in Cave of the Mounds.

rarely visited the glaciated parts of the state. Almost all caves of any size are limited to three strata from the Ordovician period: the St. Peter sandstone, and the Galena and Prairie du Chien dolomites. We learned to recognize these on sight and developed a considerable enthusiasm for their peculiarities. We haunted the limestone landscapes of Wisconsin far more than any others. I still know little of the ancient granites and basalts in the northern reaches of the state, and find myself surprisingly unengaged (geologically speaking) as I travel over the igneous and metamorphic terrain of New England, even after more than a decade in its midst. I long for the sedimentary landscape of ancient sea bottom, where the geology is more peaceful and the history of the local earth more easily readable. I feel at home with Wisconsin's rocks as with no others.

But limestone or dolomite are not enough. If you're looking for caves, you read the land-scape for very particular signs of the world that might lie below. For instance, cavers have a special affection for roadcuts and quarries, those scars in the earth where human activity has suddenly exposed the underlying bedrock.

Especially when these are new, they can reveal caverns never before seen by human eyes. The state's best-known cavern, Cave of the Mounds, was discovered in just this way in 1939, when local dynamiters suddenly found that their quarry had an entirely different profit potential than they had imagined. People have been paying to see it ever since. Its much less successful neighbor-Blue Mounds Cave, first called Pokerville Cave and then Lost River Cave as its owners desperately sought to place it on the tourist map-was found during the construction of state highway 18-151. Wisconsin's most beautiful wild cave, Bear Creek Cave, was found during quarrying as well. One of the great attractions of quarry and roadcut caves like these is that they have escaped the long years of human visitation and vandalism that gradually strip them of their more delicate beauty. Even now, I catch myself eagerly scanning limestone roadcuts for crevices and openings that might be secret doorways into an unknown world within.

The other great landscape sign is the one through which we entered Pop's Cave: sinkholes. These are places where a cavern's roof



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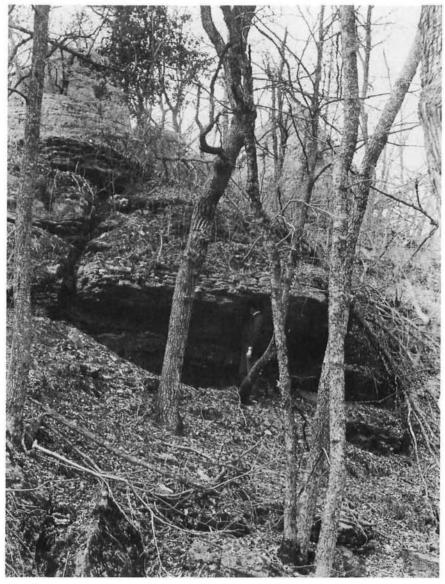
The entrance to Cave of the Mounds.

has collapsed all the way to the surface, so that a sizable depression appears at any time. Probably the most dramatic one in Wisconsin is E Pit, an impressive underground room measuring 20 by 40 feet and a full 34 feet high. (You enter it through the roof!) It is named for the county trunk highway that lies immediately above it, and was discovered when a large piece of road machinery almost fell into it as the cave's roof collapsed to a form a new sinkhole.

From the caver's point of view, sinkholes have the great virtue of being tremendously inconvenient for farmers trying to plow their fields. It's not usually practical to fill a sinkhole—it just keeps sinking if you try—and so a farmer has little choice but to leave it alone. Often it serves as a dumping ground, filled with cans, bottles, and old washing machines. It also becomes a haven for weedy vegetation, and usually plays host to several trees in otherwise treeless cropland. Its very neglect makes it a natural anomaly in the midst of an orderly agricultural countryside, so that it instantly an-

nounces its existence to the trained eye. To this day, I cannot pass through a limestone land-scape without scrutinizing any odd clumps of trees that don't seem to fit the intended patterns of their owner's fields. Any one of them might be a sinkhole, at the bottom of which I might find a new opening into an unknown cave.

And then there is an entirely different part of the landscape that is no less helpful for finding caves. Most of the state's caves have been known to local residents at some time or another far into the past, which means that one can locate them either by talking to people who live nearby, or by digging through the historical record to find what people have said about them in the past. Caves exist not just in natural space, but in human time. Our collective fascination for their mysteries means that people cannot resist telling *stories* about them. No matter what the cave, no matter how small or unimpressive it may be, you can always learn any number of tales about it if you talk with the



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A cave in the Platteville vicinity.

neighbors. You'll hear about the child who got lost for half a day before being rescued. You'll learn of the cow that fell into that blasted hole. Often there is the suggestion that the cave contains secret rooms, which lie just beyond that mysterious blocked crawlway at the end of the farthest passage. Folks say there might be treasure there, so you might just want to have a look. Everyone has a story to offer.

Often the historical narratives are even more intriguing, being a strange jumble of fact and fiction that cannot always be disentangled. There are, for instance, caves that supposedly once served as refuges for Civil War draft dodgers, or as stops on the Underground Railroad. At least two Wisconsin caves were once described as counterfeiters' dens. Some of the state's old lead mines survive remarkably intact, with very clear human narrative that can be read from the tracks, buckets, and other equipment that lies rusting in their passageways. And then there are the fabulous reports of large



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A photographer's feeling for the environment: Spring Green vicinity, May 20, 1962. A photo by Paul Vanderbilt.

caverns discovered during the early days of Wisconsin's settlement. Some survive in intriguingly altered form. Early newspaper accounts suggest that you could once walk upright in some passages of Richardson's Cave, near Verona, which are now so filled with mud that you can barely crawl through them. Other early caves seem to have disappeared altogether. Nineteenth-century tourist guidebooks report that the sandstone cliffs of the Wisconsin Dells once contained several caves into which you could float a boat back into sizable rooms. No sign of them remains today.

When past records disagree with present landscapes in this way, they suggest a most intriguing set of questions. Did the original discoverer of these caves exaggerate or invent their descriptions? Or have the shifting patterns of human land use caused such places to change past all recognition? What has hap-

pened to them? What are their stories? Richardson's Cave, for example, appears to have filled with mud when farmers broke the prairie sod and dramatically increased the silt that flowed through it during spring floods. In the Dells, a major dam has raised water levels so high that the caves visited by early tourists have long since filled with water. In just this way, caves become historical documents themselves, recording the history of human activity in the landscape above. I had a special fascination for stories like these, and so did much of my cave exploring in the stacks of the State Historical Society Library. Caves were my first experience with serious scholarly research, and with what I might now call environmental history.2

²See "A Cave Is to Explore . . .," in Wisconsin Then and Now, 14 (January, 1968), 4-5, 7.



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The lowlands along highway 191 near Hollandale, October 3, 1960. A photo by Paul Vanderbilt.

Looking back on my eight or so years as a spelunker, I now realize that the caves themselves were actually less important than the sense of place that went with them. Caving taught me a much more general passion for land and history that has come to define my adult life. It showed me the fascination of trying to read the landscape as a place of many stories: of the achingly slow sedimentation that produced the rocks around us; of the dissolution of that rock by acidic groundwater to create a cave; of the plants and animals whose habitats were affected by that cave's existence; of the human lives that eventually became entangled in its history. Despite their different time scales, all these stories seem equally fascinating to me, and come to define in my own mind the field called environmental history. I no longer care so much about caves, but the questions they taught me to ask-about reading

landscapes and telling their stories—have stayed with me ever since.

I take another lesson from my caving experience as well. I think we acquire our most vivid sense of place when we discover a special passion—often when we are still quite young—for some small part of the land around us. The original focus of that passion probably doesn't matter very much. For me, it began with caves, but for someone else it might just as easily start with hunting or birdwatching or farming or even just owning a piece of land. The simple act of declaring an interest carries us across the threshold that leads outward from ourselves to the world around us. It gives us an ever more detailed knowledge about the object of our desire, and an ever greater intimacy with its special qualities. Because nothing in nature stands alone-caves lead to the world above just as a hunter's quarry leads to the larger habitat in



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Southwest Wisconsin, 1964. A photo by Paul Vanderbilt.

which that animal lives—our original fascination more often than not becomes a much broader affection for the land itself. Our passion teaches us to care, so that the land becomes not an abstraction called "environment," but a familiar place filled with limestones and sinkholes, cat-tails and geese, oak groves and white-tailed deer. The details matter in an entirely new way; we have experienced them at first hand, as members of a landscape we have learned to call home. Their stories mingle with our own, and we come to share a common history.

Something like this happens in all human communities, of course, but it seems to me that Wisconsin has had an especially rich tradition of people who have committed themselves to the land in a passionate and self-reflective way. I didn't realize how pervasive this was until I moved away. I had grown up surrounded by friends and teachers who were just as fascinated by the land and its stories as I was. At James Madison Memorial High School, my fellow students shared my enthusiasm for learn-

ing about geology, ecology, and environmental change. At the University of Wisconsin, I found professors who raised environmental questions about their subjects regardless of whether they taught botany or geography or history or medieval sciences. Everyone around me thought it quite natural to begin their work by recognizing that people live upon the earth, so that the history of land and our place upon it was crucial no matter what the subject.

Imagine my surprise, then, when I discovered that the communities I joined at Oxford and Yale were not nearly so permeated with this landscape tradition as I was. For them, environmental history was an interesting but rather eccentric subject, well outside the mainstream of their concerns. A sense of place didn't seem nearly so important to them, or had mainly to do with buildings and the things that had happened inside them. What one of my colleagues calls "outdoor history" just wasn't the Oxford or Yale way of doing things. When I wrote an environmental history of colonial New England, people thought me quite

original to have taken such an unusual approach. I was happy they liked what I had written, of course, but I knew full well that there was nothing very original about it. I was simply writing history as I had learned to do back home, telling New England's story as if it had been Wisconsin's.

In thinking about Wisconsin's environmental tradition, then, I'm drawn to the local landscape and the people who have written their lives upon it. There are any number of individuals who are part of that tradition, from the nineteenth-century naturalist Increase Lapham to the architect Frank Lloyd Wright to the North Woods writer Sigurd Olson. No less important are the thousands of ordinary folk whose farms, lumber camps, mines, and towns have permanently altered the land we know today. But three figures clearly stand out as the most influential representatives of this Wisconsin story, so it makes sense to concentrate on their stories. Curiously, all three found their environmental compass, their most intimate sense of place, in a small area within fifteen miles of Portage, in the sandy, low-lying country near where the headwaters of the Fox River converge with the Wisconsin River. Frederick Jackson Turner was born in Portage in 1861 and spent the first eighteen years of his life there. John Muir migrated at the age of eleven to a small homestead less than a dozen miles northeast of Portage in 1849. And Aldo Leopold's Shack, the abandoned farm he immortalized in A Sand County Almanac, was located six miles upstream from Portage on the south bank of the Wisconsin River. Rarely has so unlikely a landscape evoked such passionate responses from figures of such intellectual importance. Together, these men represent three different strands of Wisconsin's environmental tradition, and say much about the American sense of place in general.

Portage itself is one important key to young Fred Turner's story.³ Few midwestern sites have an older European heritage, reaching back all the way to 1673, when Jacques Marquette and Louis Jolliet passed over this marshy strip of land on their journey of discovery down the Mississippi River. Portage had been a key center in the fur trade, which Turner would study in his doctoral dissertation. By the time he was

born, the town had become the thriving center of a growing agricultural hinterland. Immigrant farm families like John Muir's parents had purchased land throughout the surrounding countryside, and looked to Portage as a market center where they could sell their harvests and purchase supplies. The year Turner was born, it had nearly 3,000 inhabitants and was filled with new wood-frame houses and brick commercial structures. Its trade with the countryside was reflected in its flour mill, grain elevator, iron furnace, chair factory, and two breweries. Although it was already nearing the end of what Turner would later call its "frontier phase," signs of its recent transformation were everywhere.

ATER, when Turner left to attend → the University of Wisconsin in 1878, he fell under the influence of William Francis Allen, a brilliant history teacher who became his mentor. Allen taught that one studied history not to gather dry facts about great men, but to investigate large problems about society as a whole. Himself a medieval historian, he showed Turner that the history of any local place could be narrated according to the insights of Darwinian evolution, reflecting humanity's broad progress from barbarism to civilization. Seen in this way, local history gained a significance far beyond mere antiquarianism. One could study Wisconsin's past and see in its changing countryside the progress of civilization itself. One of Turner's first serious research projects was a study of French land-tenure patterns in the area around Portage, using techniques borrowed from medieval history. As the young man groped toward a new vision of

"On Turner's early life and later career, the key study is Ray Allen Billington, Frederick Jackson Turner: Historian, Scholar, Teacher (New York, 1973). See also Ronald H. Carpenter, The Eloquence of Frederick Jackson Turner (San Marino, California, 1983). I have written about Turner in my "Revisiting the Vanishing Frontier: The Legacy of Frederick Jackson Turner," in the Western Historical Quarterly, 18 (April, 1987), 157–176, and in "Turner's First Stand in Richard Etulain, ed., Writing Western History: Essay on Classic Western Historians (Albuquerque, forthcoming), from which the next two paragraphs are drawn.



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Frederick Jackson Turner's Portage home until 1880.

the American past, he adopted Allen's methods and applied them to the local landscape.

The result, of course, was the famous frontier thesis, first expressed in 1893 in the single most influential essay ever written by an American historian.4 Turner's main argument—that free land had created the American character and the democratic institutions that made the United States unique as a nation-has been much attacked by scholars, and most have now abandoned it altogether. I will not rehearse that controversy here. Instead, I would point to the special sense of place it reflected. Turner was a great patriot, and believed that the history of his homeland had been badly served by earlier scholars. He therefore sought to rewrite American history with two compelling goals in mind. As a citizen of the United States, he wished to prove that the American past was

⁴Frederick Jackson Turner, "The Significance of the Frontier in American History," in the Annual Report of the American Historical Association for the Year 1893 (Washington, D.C., 1894), 199–227. This became the first chapter of Turner's The Frontier in American History (New York, 1920), which is the version I cite below.

quite distinct from that of Europe, and represented a new democratic phase in the history of civilization. But as a citizen of Wisconsin and the Mississippi Valley, he also wished to argue that the country in which he had grown up was the special heartland of America's democratic values. Explorers, Indian traders, cattlemen, and farmers were the pioneers who had made America unique. Their struggles to make a life for themselves on the frontier were the central story of this nation's history. Wisconsin and the West were where Americans had discovered themselves as a people.

Much of the scholarly controversy about Turner revolves around the distortions and omissions that are built into this argument. His writing reflects certain assumptions about race that were common to his time but repugnant to our own. "Free land" hardly gave adequate recognition to the prior presence and subsequent conquest of Indian peoples. America's democratic institutions of government owed more to the European Enlightenment than they did to the frontier. The United States was less exceptional than Turner wanted us to believe.



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Frederick Jackson Turner, 1881.

But as a story about the American landscape, the frontier thesis had much to recommend it. By focusing scholars' attention away from Washington or New York and out toward communities like Portage, Turner reminded his colleagues of what I would call a recurrent Wisconsin insight: that history ultimately takes place on the Land. The story of the frontier was the story of an original Indian landscape being seized and reshaped according to the cultural assumptions of new immigrant communities that made it their own. Turner also emphasized the role land itself played in influencing human culture, arguing that particular soils and vegetation types had encouraged quite different cultural patterns. America's great sections-North, South, and Westhad emerged in the interplay between people and their environment. To give just one Wisconsin example, one could see that the glaciated prairie soils of the southeast were far more hospitable to farming than the thin coniferous soils of the north, and it was thus no accident that these parts of the state had developed quite differently. In this sense, frontier history was about nothing less than the making of the American landscape.

I have said that each of us comes to our sense of place through a very particular passion. Turner's was history. Wherever he looked, he saw stories about the past. For him, the frontier was like the series of terminal moraines left behind as the great Ice Age glaciers receded from his native Wisconsin.5 Each epoch of frontier advance left its traces in the local landscape, so that later regional identities reflected earlier frontier stories. The mining laws of the Rocky Mountain states were based on the earlier models of the Wisconsin lead district, as well as the Spanish mining laws imported from Mexico and South America. Indian and land policies in the Far West had already been anticipated in the Ohio Valley.6 Viewed in this way, every place, no matter how obscure, deserved proper recognition in the annals of history, and it was the historian's job to suggest how all were connected together in the great epic of frontier progress. One's sense of place flowed out of the past, so that the history of Portage recapitulated the history of the nation, and of civilization itself.

Turner himself was basically an optimist, and he tended to see in each frontier landscape a narrative of human improvement. For him, the sequence of rural communities that comprised the history of Portage and its hinterland demonstrated that people had changed the landscape for the good, building farms and homes that would be the backbone of their community. Although he had been an active fisherman since boyhood days, and loved his excursions into the North Woods, history as he wrote it was less about nature than about the human community reshaping nature to its own ends. When he wrote about the environment, it was to describe the broad regional influences-climate, soil, vegetation—that had led people to choose certain ways of living upon the land. He dealt relatively little with the individual plants and animals which shared the frontier

⁵Turner uses this glacial metaphor in *Frontier in American History*, 4.

⁶Ibid., 10.



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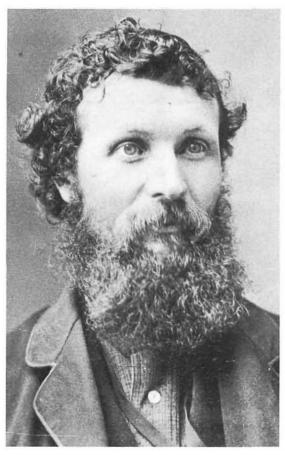
Frederick Jackson Turner (left) fishing on a Wisconsin lake.

landscape with their human neighbors. They entered his story mainly as the backdrop and limiting influence for his central narrative about human progress.

There was nonetheless at least one dark side to Turner's story. His famous essay concluded with a single prophetic sentence: "And now, four centuries from the discovery of America, at the end of a hundred years of life under the Constitution, the frontier has gone, and with its going has closed the first period of American history." Turner could hardly be unambivalent about this conclusion. If the frontier had indeed been the font from which American democracy and individualism had flowed, then there might be good reason to worry if this source of national renewal had come to an end. No one could know what the second period of American history might portend for a

post-frontier world, but Turner, at least, feared for the nation's future. Without the perennial escape to the West, Americans and their land would have to deal with new limits. The United States might all too easily be entering a time of decline—in which cities and people might lose their roots in the soil, in which class conflict might break into open violence, in which democracy might diminish or vanish altogether. The landscape Turner trusted best was the one he had known as a boy, the small-town agricultural world of a central Wisconsin still fresh from its frontier birth, and he worried that it might be slipping away forever.

*Later historians would reject this argument about the frontier origins of American democracy, so that Turner's anxiety about the "passing frontier" should now be read as his own ideological construct. For him and his contemporaries, however, this prophecy of what might follow in the wake of a "closed frontier" was quite worrisome.



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John Muir, a cabinet photo by C. E. Watkins Art Gallery, San Francisco.

JUST this sense of a beloved place vanishing before one's eyes informed John Muir's sense of the Wisconsin landscape. Muir, of course, is much more frequently identified with California and the Sierra Nevada than he is with the area of central Wisconsin where he spent his first eleven years in the United States. But his later writings about the western wilderness had their origin

"The classic text for tracing Muir's time in Wisconsin is John Muir, The Story of My Boyhood and Youth (1912; reprinted, Madison, 1965), supplemented with various letters in William Frederic Bade, The Life and Letters of John Muir (Boston, 1924), volume 1. The best modern biographies of Muir are Stephen Fox, John Muir and His Legacy: The American Conservation Movement (Boston, 1981); Michael P. Cohen, The Pathless Way: John Muir and American Wilderness (Madison, 1984); and Frederick Turner, Rediscovering America: John Muir in His Time and Ours (New York, 1985).

in his boyhood explorations of the woods around his parents' farm. Muir, after all, had arrived in Wisconsin in 1849, eight years before Portage acquired the railroad station that would suddenly boom the town's population and turn it into the thriving community Fred Turner would know as a boy. When Muir's father purchased the family farm on Fountain Lake in what is now Marquette County, there were no other homesteads within four miles. The woods were without tracks or roads. For a boy just in from a Scottish village, this was very deep wilderness. Unlike Turner himself, Muir knew the frontier at first hand.

Indeed, much of Muir's waking life was devoted to exactly the frontier improvements that Turner would later describe in his historical essays. Under the harsh discipline of his Calvinist father, he pursued an endless round of chores that in one way prepare the land for planting.10 He spent long hours digging up stumps so they would not interfere with plowing or reaping.11 He worked the family's great breaking plow, pulled by four or five yoke of oxen and capable of turning a furrow nearly two feet in width, even though he was still so small that he had to reach up to hang onto the handles.12 The work was brutally hard, but in the end a wilderness had become a farm. As Muir described it, "The axe and plough were kept very busy; cattle, horses, sheep, and pigs multiplied; barns and corncribs were filled up, and man and beast were well fed; a schoolhouse was built, which was used also as a church; and in a very short time the new country began to look like an old one."13 Turner himself could not have penned a better description of frontier progress.

For Muir, unfortunately, these things were not all changes for the better. During his brief respites from farm work, he and his brother took every opportunity to explore the woods around their home. Although he had been fascinated by birds and other animals even back in Scotland, the creatures of the Wisconsin

¹⁰ Muir, Boyhood and Youth, 63.

¹¹ Ibid., 176.

¹² Ibid., 181.

¹³ Ibid., 169.



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D. E. Owens pointing to the location of the first Muir home near Ennis Lake, Marquette County.

woods became his companions in a new and more intimate way. Like other farm boys of his generation, he started hunting at an early age, and delighted in tramping around the woods to pursue game. The new cornfields encouraged an increase in the local population of gophers and rabbits, which became ideal targets for boy hunters.14 But hunting was only one part of Muir's affection for his fellow creatures. The family's horses and oxen became beloved pets, each with its own distinctive personality. The annual passage of the seasons brought with it a procession of flowering plants and migrating birds that were among the boy's greatest passions. He learned to mark the coming of the spring with the blooming of the pasque flowers, and "the lonely cry of the loon, one

of the wildest and most striking of all the wilderness sounds. . . . "15

Such creatures were a wonderful escape from the discipline of farm work and the harsh religious teachings of his father. For John Muir, the local plants and animals expressed his own most precious sense of place, in which romantic Nature was nothing less than holy. The woods on the margins of the family farm were to him the very embodiment of wilderness and the youthful adventures that went with it. "This sudden plash into pure wilderness—baptism in Nature's warm heart—how utterly happy it made us!" he wrote in a rapturous passage. "Oh, that glorious Wisconsin wilderness! Everything new and pure in the very prime of the spring when Nature's pulses were

beating highest and mysteriously keeping time with our own! Young hearts, young leaves, flowers, animals, the winds and the streams and the sparkling lake, all wildly, gladly rejoicing together!"¹⁶ As Muir saw it, Wisconsin at the moment of his arrival was filled with Original Nature. In its wild beauty one could still see the morning of God's creation.

But if wilderness was sacred, then frontier progress profaned the very temple of God. Every effort to improve the family farmstead was one more nail in nature's coffin. It took only four or five years before the soil had lost so much of its fertility that it produced only five to six bushels of wheat per acre where initially twenty to twenty-five had been the norm. Fortunately, farmers soon discovered that they could plant English clover on exhausted fields, and then plow it under to restore nitrogen to the soil and bring yields back to their earlier levels.17 The need to do so was nonetheless a warning that invisible changes were happening beneath the surface of the landscape, and in fact the local soils would not survive such use indefinitely.

A still more powerful symbol was the great flocks of passenger pigeons that Muir had read about in Scotland and now experienced at first hand. "Of all God's feathered people that sailed the Wisconsin sky," he wrote, "no other bird seemed to us so wonderful." Their arrival in the early spring-"like a mighty river in the sky, widening, concentrating, descending like falls and cataracts"-was an occasion of great wonder. "Oh, what bonnie, bonnie birds!" the children would exclaim, admiring the iridescent colors on their breasts. "It's awfu' like a sin to kill them!"18 But kill them the settlers did, by the thousands and then millions, so that everyone could feast on pigeon pie. The great flocks would not vanish from the state until a decade or so after Muir finally left, but the scent of their death was already bitter in the wind.

Muir did not write about his Wisconsin experience until a few years before the end of his

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A passenger pigeon in the Whitman aviary, 1896. Photo by J. G. Whitman.

life, and his account of this boyhood landscape is much colored by the romantic philosophy of nature that characterized his adult years. The sympathies he articulated so powerfully in his autobiography were surely not so clear in his mind when he was growing up, and his adult passion for wilderness did not emerge until a few years after he finally left the state. But it can be no accident that when he did sit down to write *The Story of My Boyhood and Youth*, he chose to portray the natural landscape of Wisconsin—in direct counterpoint to his father's religion—as a kind of paradise lost.

If Turner's frontier treated environmental improvement as a symbol of human progress, Muir's Fountain Lake was about a natural world so beautiful that no human hand could improve it. Although he could write with some affection about life on the farm, and even described his boyhood chores with a certain stoic acceptance of their necessity, Muir's heart was in the woods. The wonder he had felt in discovering his plant and animal companions became an enduring symbol of wilderness for him, the destruction of which was sacrilege. When he finally made his way to Yosemite Valley and discovered nature on a sublime scale the likes of which Wisconsin could never

¹⁶Ibid., 52-53.

¹⁷ Ibid., 159.

¹⁸Ibid., 128-130.

match, he knew he had found the place he could at last call home. The memory of Wisconsin was too ambivalent to deserve that label. The passion Muir had learned in the Wisconsin landscape would lead him on a life-long search for still wilder places where the hand of God remained untarnished, and the human presence was not yet profane. Fountain Lake was the home one left behind, the landscape from which one finally sought escape.

ALDO Leopold made the opposite journey: unlike Turner and Muir, he came to Wisconsin and found an unexpected home here only after an extended time in the western wilderness.19 After growing up in Burlington, Iowa, and being educated as a forester at Yale University, he headed out to New Mexico and lived there for thirteen years before returning to the Middle West. His childhood in Iowa had something in common with Muir's. He too was a hunter. He too discovered a special passion for the birds and other animals that lived in the vicinity of his parents' home. His time at Yale formalized the conservation values he had first learned as good sportsmanship on hunting trips with his father, and the Southwest gave him his first experience in putting those values into practice. He devoted immense energy to conserving the state's game animals, in part to protect the hunt, and in part to defend certain natural values that he had not yet fully articulated even to himself. He was appalled at the effects of erosion and gullying on over-grazed desert mountains, and began to question the human mismanagement that had produced them. But above all he reveled in the southwestern landscape. New Mex-

19The standard biography of Leopold is Curt Meine, Aldo Leopold: His Life and Work (Madison, 1988). This can be usefully supplemented with Susan Flader, Thinking Like a Mountain: Aldo Leopold and the Evolution of an Ecological Attitude Toward Deer, Wolves, and Forests (Columbia, Missouri, 1974); Thomas Tanner, ed., Aldo Leopold: The Man and His Legacy (Ankeny, Iowa, 1987); J. Baird Callicott, ed., Companion to Sand County Almanac: Interpretive and Critical Essays (Madison, 1987); and Robert A. McCabe, Aldo Leopold: The Professor (Madison, 1987).

ico was the wildest, most extraordinary country he had ever seen, and it seemed for a time that he would never leave it.

And then, unexpectedly, when a job opened up at Madison's Forest Products Laboratory in 1924, Leopold found himself back in the Middle West, in a landscape that could hardly have seemed less wild when compared with the desert mountains of New Mexico. Although he was soon unhappy at Forest Products, and went through a string of consulting jobs before finally settling into the first chair of game management at the University of Wisconsin in 1933, he had put down roots for good. The man who would become the greatest American spokesman for wilderness in the first half of the twentieth century chose to make his home in a landscape which Turner had celebrated for its improvement out of wilderness, and which John Muir had fled in his search for wilder country. It seemed a curious choice.

Or perhaps not. In 1935, Leopold purchased an abandoned farm on the Wisconsin River just west of Portage. It was the sort of place that might have been settled not long after Muir and Turner were boys, but it was not destined to prosper. In it, the frontier story had come full circle, from wilderness to farmland to waste. "My own farm," Leopold wrote, "was selected for its lack of goodness and its lack of highway; indeed my whole neighborhood lies in a backwash of the River Progress."20 The sandy soils were far from ideal for crops or grazing, and by the 1930's had little left to offer a farmer. It was hardly surprising that the previous owner had finally given up on the place. A fire had burned down the farmhouse, so that the only remaining structure was a small chicken coop. Leopold and his family set about cleaning up the little building, constructing a fireplace for it, and giving it a roof. Although their early visits were irregular, they gradually came more and more frequently, until finally the Shack had become their most sacred retreat from the outside world. There more than anywhere also Leopold found the sense of place he had been seeking.

²⁰Aldo Leopold, A Sand County Almanac, and Sketches Here and There (New York, 1949), 46–47.



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Aldo Leopold with a prize catch.

Leopold was a man whose love of wilderness was no less passionate than Muir's, but he combined it with Turner's devotion to history as a story of human life upon a changing land. A Sand County Almanac is only superficially a collection of nature essays, for its deepest theme has to do with history. Wherever Leopold looked on the Wisconsin landscape, he saw the marks of Turner's frontier. The sawdust of a great burr oak held a record of environmental change across decades of human and natural history.²¹ A compass plant in the center of an oddly shaped rural graveyard was the last reminder of a former prairie.²² Even a certain

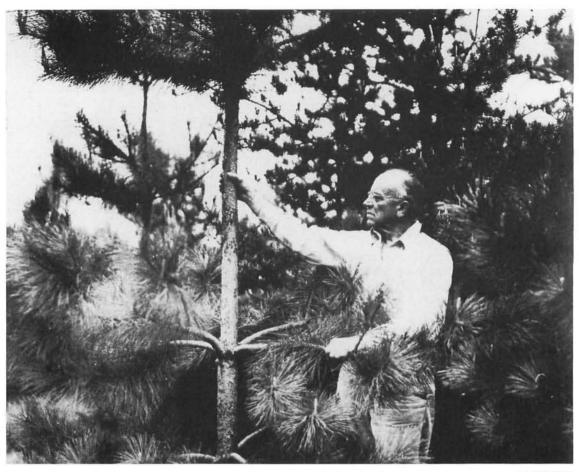
silence could record the absence of the "biological storm" of passenger pigeons that Muir had recorded so lovingly, which had now vanished from the Wisconsin countryside.²³

In a sense, Leopold spent his whole life trying to reconcile the visions of his two Wisconsin predecessors. No one knew better than he the joy of escaping into Muir's wilderness, but he also shared with Turner the bittersweet knowledge that nothing, not even wild nature, finally escapes the flow of time. Our every action changes nature and alters the course of history, so that the chief environmental riddle of living a moral life is not whether to change

²¹Ibid., 6–18. Leopold's essay "Good Oak" was reprinted in the Wisconsin Magazine of History, 71 (Autumn, 1987), 46–54.

²² Leopold, Sand County Almanac, 44-46.

²³Ibid., 108–112. See also Leopold's eulogy to a vanished species, "On a Monument to the Pigeon," in the Wisconsin Magazine of History, 59 (Summer, 1976), 279–281.



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Aldo Leopold inspecting a young pine on his Wisconsin River farm.

nature—Muir's question—but how to change it. Leopold understood this dilemma more deeply than most, and it was characteristic of him that he expressed it best while wielding the same tool-the ax-that had long been the chief American symbol of frontier progress and destruction. "A conservationist," he wrote after a session chopping down trees to manage the woods on his property, "is one who is humbly aware that with each stroke he is writing his signature on the face of his land."24 Long before buying the Shack, Leopold had been devising suggestions for farmers and others who wished to maintain the natural community of plants and animals on their land even as they raised crops there. Careful attention to meadows, pastures, and woodlots, so as to produce cover and open areas for birds and other creatures, could allow people and animals to thrive side by side. Leopold's textbook on Game Management was a recipe collection of just such techniques.25 Because he initially came to these questions as a hunter, the book was biased toward promoting game species like deer and quail. But as Leopold sought to apply its lessons to the property around the Shack, he gradually broadened his interest to include far more than just game animals. The family began to plant thousands of trees, of several different species, with an eye to creating a forest which many creatures might choose to make their home. In effect, they were practicing ecological

restoration in a reversal of Turnerian progress, returning the land to health by re-creating its former wildness. In a move that would have been quite alien to Turner or Muir, the Leopolds became gardeners of the wild.

If it is the particulars that define a sense of place, then few places have been more finely sensed than the Shack. Leopold kept careful records of the daily, weekly, and seasonal events that happened within his wild garden. He recorded the tracks of animals on the snow, and the arrival of the migratory geese in mid-March. Muir's blooming pasque flowers found a place in his records, as did all the other blossoms that marked the turn of the seasons. The sky dance of the woodcock became a family favorite, and led Leopold into a study of predawn birdsongs in relation to the changing intensity of sunlight. Each question led on to others, producing an ever deeper knowledge of this tiny patch of Wisconsin landscape. Leopold's inquiries eventually led to one of his least known but most characteristic works, an article with the unpoetic title, "A Phenological Record for Sauk and Dane Counties, Wisconsin, 1935-1945."26 Essentially a calendar of the major natural events in Madison and at the Shack across each month of the year, it captured the breadth and intensity of Leopold's passion as well as anything he ever wrote. Rarely has so small a place been studied and loved so intimately; rarely has so wild a land been so carefully tended by the people who lived upon it.

ALTHOUGH Aldo Leopold wrote eloquently about the need to preserve wilderness in American culture, and although his words became powerful weapons in the struggle to set aside this nation's great wilderness preserves, for me his deeper lesson has more to do with Wisconsin than with the West. If you follow the federal government's

definition, there is no wilderness in Wisconsin. But that in itself suggests how poorly we have learned Leopold's chief lesson. Wildness is where we choose to see it, where we take the care to love and nurture it. The little tract of Shack property in the backwash of the frontier was more than just a scarred remnant of a lost wilderness; it was and is a place where people have struggled hard with what Leopold called "the oldest task in human history: to live on a piece of land without spoiling it."²⁷

In the end, this seems to me the heart of Wisconsin's environmental tradition. However we come to our love of the land-whether by caving or farming or hunting or tree-planting or writing history-the important thing is that we learn to care for it as more than an abstraction. Although we can join Muir in the great delight of escaping for a time to the wilderness and doing all we can to preserve it, that is not where most of us live. Our responsibilities lie elsewhere. The great challenge we face is to do right by the land we have made our own. "We can be ethical," Leopold wrote, "only in relation to something we can see, feel, understand, love, or otherwise have faith in."28 That is easier to do in our own backyards than anywhere else, and seemingly easier in Wisconsin than in most other places.

Why has Wisconsin provided such fertile ground for this Leopoldian vision? I can't really say, though a few possible reasons do occur to me. For one, this state has a relatively humble landscape: without great mountains, it lacks the most obvious sublime spaces that seem best suited to our culture's rather narrow definition of wilderness. Ours is a working landscape, in which farms and woodlands intermingle as a reminder that although people are everywhere, the human triumph has never been complete. We share our land with other creatures. We lack great cities, where it is easy to forget that the urban world depends on the countryside around it, and that our food comes not from the wilderness but from the farm.

²⁶Aldo Leopold with Sara Elizabeth Jones, "A Phenological Record for Sauk and Dane Counties, Wisconsin, 1935–1945," in *Ecological Monographs*, 17 (January, 1947), 81–122.

²⁷Aldo Leopold, "Natural History: The Forgotten Science," 1938, unpublished lecture quoted in Meine, *Aldo Leopold*, 383.

²⁸Leopold, Sand County Almanac, 214.



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The Curtis Prairie in the University of Wisconsin Arboretum, Madison, part of Aldo Leopold's legacy.

There is a strong tradition of hunting in Wisconsin, which for both good and ill has produced a strong commitment to wildlife among the people of the state. We are also a tourist hinterland for a large metropolitan area outside our borders—Chicago—and this has fostered the growth of resort areas where people enjoy a recreational and esthetic relation to nature.

Then again, Wisconsin is a landscape where the multiple layers of history are easy to read by anyone who cares to look. In most parts of the state, people learn to recognize the signs of the glacier's passage, so that most of us understand that this landscape is a relatively recent creation: Turner, Muir, and Leopold all shared a Wisconsin fascination for glaciers. We are a state that has lost most of its prairies, oak openings, and original pine forests, so that everywhere we see young woodlands in their early successional stages as proof of the frontier changes of the past century. The rise and fall

of our marginal agricultural areas—places like the Shack—reminds us of the environmental and economic challenges that still make farming a hard and difficult life. The eutrophication of our lakes suggests the successional stages common to all such bodies of water, and also the ability of people to accelerate the flow of time in encouraging them to age. Everywhere we see signs that the histories of land and people are bound together.

Finally, there are the serendipitous accidents of history. Wisconsin confronted the consequences of environmental destruction in its northern cutover district at a relatively early date, so that conservation was on the political agenda here earlier than most places.²⁹ The loss

²⁹See Vernon Carstensen, Farms or Forests: Evolution of a State Land Policy for Northern Wisconsin, 1850–1932 (Madison, 1958); Erling D. Solberg, New Laws for New Forests: Wisconsin's Forest-Fire, Tax, Zoning, and County-Forest Laws of the prairie promoted one of the nation's first experiments in ecological restoration-the Curtis Prairie which Leopold helped create at the University of Wisconsin Arboretum-so that the state has living examples of the world it has lost. The University itself has played a major role. Its combination of liberal arts and agricultural colleges in a single great research institution is not as common as one might think, and has promoted a cross-fertilization of pure and applied environmental scholarship that happens much less often at pure liberal arts institutions like Oxford or Yale. The famed Wisconsin Idea has encouraged scholars with an interest in land to share their knowledge with the people of the state, and this has had as much effect on the professors as on the citizenry. The UW is in and of Wisconsin in a way that Yale will never be in and of Connecticut. Then too, Turner and Leopold were not alone in bringing their fascination for the local landscape into the classroom. They were joined by many others-Edward Birge, Charles Van Hise, Benjamin Hibbard, Norman Fassett, John T. Curtis, Andrew Hill Clark, and their many successors-who all shared a common commitment to landscape as a central concern. Few universities have so strong an environmental

tradition, and Wisconsin has been the better for it.30

As I think about my own early days as a cave explorer, and my eventual discovery that what I really wanted to do was environmental history, I realize that I have been the beneficiary of all these people and traditions, and of the Wisconsin landscape itself. Everything I now do is a product of this place and its past. Caving taught me how to recognize the messages of sinkholes and roadcuts, but only gradually did I recognize the much deeper Leopoldian lesson that the landscape is a record of all that has happened upon it. One can read it not just to find caves, but ourselves as well. In the largest sense, history is what we see no matter where we look. There are no caves in the area where Turner, Muir, and Leopold spent such significant portions of their lives, but the Wisconsin landscape holds much greater hidden treasures because of the work they did here. It is a passage backward to our common past, linked in the case of these three men by their extraordinary efforts to discover a moral meaning for our lives upon the land. Each of us must find our own way through the country they have shown us, but our final destination is much the same as theirs: a place we can make our own, a landscape called home.

in Operation (Madison, 1961); Arlan Helgeson, Farms in the Cutover: Agricultural Settlement in Northern Wisconsin (Madison, 1962); and James Willard Hurst, Law and Economic Growth: The Legal History of the Lumber Industry in Wisconsin, 1836–1915 (Cambridge, 1964).

³⁰The starting point for any study of the University's tradition is of course Merle Curti and Vernon Carstensen, *The University of Wisconsin: A History, 1848–1925* (two volumes, Madison, 1949).

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