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Education for Democracy

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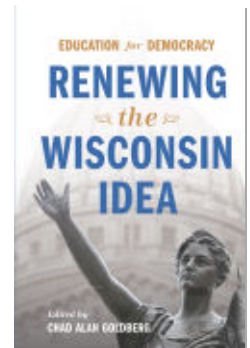
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The Crucible of Conservation

Land, Science, Community, and the Wisconsin Idea

CURT MEINE

Conservation is not a practice, a program, a technical standard, or a plan. . . .
Conservation is a journey.

—PETE NOWAK, Emeritus Professor, UW–Madison (2011)¹

PICTURING THE WISCONSIN IDEA

“If you had to choose one picture to illustrate the Wisconsin Idea, Andy, what would it be?”

I posed this question to Andy Kraushaar, longtime curator of Visual Materials at the Wisconsin Historical Society. For thirty years Andy oversaw collections that include some three million photographs, drawings, posters, films, and other items. Andy, it is safe to assume, holds more images of Wisconsin places, culture, and history in his mind than any other person in the state.

We tossed around a few candidates. We agreed that the short list had to include a 1930 image showing the Ingenues, a popular all-woman jazz band, squeezed in among the stanchions in the University of Wisconsin’s on-campus dairy barn. The flapperish girls are playing their horns, saxophones, and clarinets for the bemused Jerseys in an experiment to determine if cows would produce more milk when exposed to music.² A far stretch, it might seem, from more sober expressions of university instruction, research, and extension. But something in those eyes—of the musicians and the cows—conveys the spirit of creativity that has marked the Wisconsin Idea at its best. (And, after all, generations of Wisconsin dairy cows and dairy farmers have tuned into the radios in their milking parlors.)

Andy nominated another image of about the same vintage. A hundred mostly younger men sit on the ground and in folding chairs, gathered around a makeshift plywood stage under a canopy of elms. They are participants in the university’s farm short course. On stage an instructor holds forth on what

could have been any of a hundred topics, from crop rotations to veterinary science to farm accounting methods. The short courses date to 1886—the first agricultural courses offered in the state, open to any Wisconsin student over the age of sixteen. Andy's choice made good sense. To this day the short course epitomizes the Wisconsin Idea: providing educational opportunity and access to knowledge for all the citizens of Wisconsin.

My own top choice was a photo I have long used in lectures on conservationist Aldo Leopold. Leopold and one of his graduate students, Ellwood Moore, are visiting a farm near the whistle-stop village of Riley, west of Madison in rural Dane County. It is a hot day in 1935. Leopold has his sleeves rolled up and a cigarette in hand. He is talking with a farmer and his two sons. One of the sons is shirtless. Leopold was two years into his university career, charting new directions in wildlife ecology and land conservation. Since 1931 he had been fostering a collaboration between Riley farmers and a group of sportsmen from Madison.³ A dominant theme for Leopold in these years was encouraging wildlife management on private lands, involving farmers, other landowners, hunters, and students in the field work and in research.⁴

Why does this image stand out for me? I like the notion of the farmer and the professor working alongside one another. Leopold and his student were no doubt learning as much as they were sharing, the information flowing both directions between citizens and the university campus. In the portrait of their



Aldo Leopold visiting with farmer Reuben Paulson in Riley, Wisconsin, in 1935. Photograph courtesy of the Aldo Leopold Foundation.

conversation I find the essence of the Wisconsin Idea. People from different backgrounds cultivating relationships, sharing experiences, and exploring practical applications of knowledge. Citizens coming together to solve problems and create opportunities—while keeping in mind the land, its plants and animals, its human community, and future generations.

Similarly, if I had to choose just one historic graphic to illustrate the complexity of our conservation challenges today, I would again draw upon Leopold. At the Seventh North American Wildlife Conference, held in Toronto in April 1942, Leopold delivered a short paper entitled “The Role of Wildlife in a Liberal Education.”⁵ His presentation included a figure labeled “Lines of dependency (food chains) in a community.” More than three-quarters of a century later, that figure remains transformative, even revolutionary. Depicting what would have been a typical (if simplified) set of ecological relationships in a Wisconsin landscape, the figure shows chains connecting *rock—soil—ragweed—quail—horned owl*, and *rock—soil—alfalfa—rabbit—red-tailed hawk*. The study of such “lines of dependency” had become increasingly important in Leopold’s work, especially after English ecologist Charles Elton, Leopold’s friend and colleague, published his landmark book *Animal Ecology* (1927). Elton’s volume defined such basic ecological concepts as the *niche*, *food webs*, and the *pyramid of numbers*.⁶

On this occasion, however, Leopold pushed into territory where few other ecologists ventured. The ecological chain that led from *rock* to *soil* to *alfalfa* to *cow* Leopold extended to connect *farmer* to *grocer* to *lawyer* to *student*; another line linked *farmer* to *implement maker* to *mechanic* to *union secretary*. In his diagram Leopold also highlighted the various academic disciplines required to understand the workings of the entire “land community.” He included, as would be expected, geology, soils, botany, mammalogy, and ornithology. But Leopold also included animal husbandry, sociology, and economics. For Leopold, human and natural communities were intimately intermingled. Our social, economic, and political realities did not, and could not, exist in an ecological vacuum. Our conservation challenges did not, and could not, be addressed apart from the social sphere. Today, in the effort to comprehend the full complexity and dynamism of interconnected human-nature relationships, researchers in the social and natural sciences study *linked socio-ecological systems*.⁷ Leopold is looked back upon as a pioneer in that approach.⁸

It is especially fitting that Leopold prepared this figure for a talk focused on liberal education. His accompanying text is dense with pedagogical insight:

Perhaps the most important of [ecology’s educational] purposes is to teach the student how to put the sciences together in order to use them. All the sciences

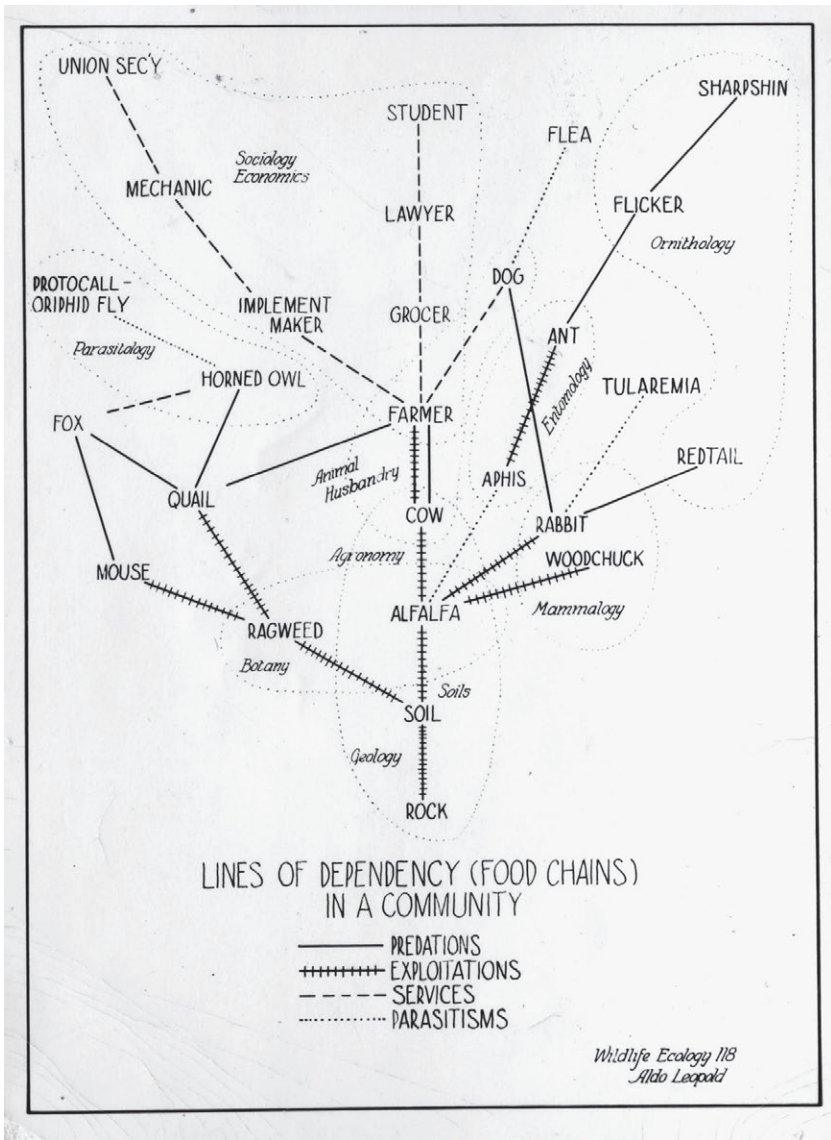


Figure from Aldo Leopold's 1942 article "The Role of Wildlife in a Liberal Education." It illustrates, he wrote "some of the lines of dependency (or food chains, so called) in an ordinary community. These lines are the arteries of a living thing—the land. In them circulates food drawn from the soil, pumped by a million acts of cooperation and competition among animals and plants. That the land lives is implicit in its survival through eons of time. Who is the land? We are, but no less the meanest flower that blows. Land ecology discards at the outset the fallacious notion that the wild community is one thing, the human community another." Figure courtesy of the Aldo Leopold Foundation.

and arts are taught as if they were separate. They are separate only in the classroom. Step out on the campus and they are immediately fused. Land ecology is putting the sciences and arts together for the purpose of understanding our environment. . . .

Land ecology discards at the outset the fallacious notion that the wild community is one thing, the human community another.

What are the sciences? Only categories for thinking. Sciences can be taught separately, but they can't be used separately, either for seeing land or doing anything with it. . . .

There is no need to persuade the student of land ecology that machines to dominate the land are useful only while there is a healthy land to use them on, and that land-health is possibly dependent on land-membership, that is, that a flora and fauna too severely simplified or modified may not tick as well as the original.⁹

Such statements represented the full flowering of Leopold's ecological understanding. They also reflected the special institutional influence of the University of Wisconsin, with its already impressive history of contributions to conservation.

Thirty years earlier, in 1912, political scientist and reformer Charles McCarthy had published *The Wisconsin Idea*, the classic account of Wisconsin's leadership role in the Progressive movement—with emphasis on the vital relationship between the state university and public policy. Theodore Roosevelt, president of the United States from 1901 to 1909, provided an introduction to the volume. An accomplished naturalist and dedicated sportsman himself, Roosevelt during his presidency had led the national conservation crusade. In his post-presidency years he was even more relentless in his insistent progressivism, and as *The Wisconsin Idea* went to print he was preparing to make a run to reclaim the White House.¹⁰ In his introduction Roosevelt famously described Wisconsin as “literally a laboratory for wise experimental legislation aiming to secure the social and political betterment of the people as a whole.”¹¹

If Wisconsin was a vital laboratory of democracy, it was more specifically a crucible for conservation. Beginning in the late 1800s, Wisconsin's landscape of resource exploitation and ecological devastation would be transformed into one of restoration and resilience, with the university and the Wisconsin Idea playing a catalytic role. But conservation has never rested upon a static foundation of scientific knowledge and concepts. Conservation evolves continuously. Land changes. New needs and opportunities emerge. New approaches take hold and new tools are invented. Challenges to democratic governance and equitable policy-making are ever-present. The values that shape our relationship to

land, and to the planet, shift.¹² Over the last century the role of the Wisconsin Idea in conservation has evolved accordingly.

Leopold wrote in 1940 that “conservation, viewed in its entirety, is the slow and laborious unfolding of a new relationship between people and land.”¹³ That unfolding continues as the critical environmental trends of the twenty-first century press upon us. Science understands the functioning of linked socio-ecological systems better than it has in the past. Yet resistance to scientific expertise, conservation values, and effective environmental policies has also grown stronger in recent years. For much of the last century, Wisconsin was widely regarded as an innovative leader in conservation, its impact extending well beyond the boundaries of the state. That reputation, however, waned with neglect, as opposing political forces asserted their power. Wisconsin can no longer claim the mantle of leadership, at least in the public sector.

Wisconsin, and the Wisconsin Idea, thus stand at a crossroads. Where will Wisconsin go from here? In the face of accelerated social, economic, and environmental change, does the Wisconsin Idea remain relevant to conservation? Can it continue to catalyze conservation? Conversely, can conservation help to reimagine the Wisconsin Idea in this time of rapid transformation? If so, what new and different means—and meanings—must be built into the expression of the Wisconsin Idea? What picture of the Wisconsin Idea will the future bring?

THE WISCONSIN IDEA AND WISCONSIN'S LANDSCAPE

To inform the answers to those questions we may turn to the land and its history, and revisit the origins and development of the Wisconsin Idea. Wisconsin's landscape is itself a “linked socio-ecological system.” It of course has people in it, but people in community with its climate, geology, soils, waters, plants, and animals. The Wisconsin Idea is a product of Wisconsin as a particular place, reflecting its unique natural and cultural history, and affecting the character of that place in turn. It has evolved in this landscape, influencing in important ways our human relationships with and within it.

A specific set of environmental, historical, economic, and cultural circumstances prepared the way for the emergence of a robust conservation movement in Wisconsin in the early 1900s. Wisconsin's topography of glaciated and unglaciated lands featured abundant fresh water, varied soils, and a diverse flora and fauna occurring in an array of lake, stream, wetland, prairie, savanna, and forest communities. Native peoples have inhabited the landscape now called Wisconsin for at least twelve postglacial millennia. Earlier waves of human activity on the land had lasting environmental effects: exploitation of the Pleistocene megafauna; development of Native American agroecosystems;

prehistoric mining, burning, hunting, gathering, and fishing; the cross-cultural fur trade beginning in the 1600s. However, these effects were relatively slow, intermittent, or localized compared to the unprecedented rush of resource exploitation that altered the character of Wisconsin's landscape after the confiscation of Native American lands in the early to mid-1800s. That wave accelerated after statehood in 1848 and reached an apogee in the last three decades of the 1800s.¹⁴

By 1900 migrant settlers from the eastern United States and Europe had largely converted the state's southern prairies and savannas to agriculture. In much of the region, this stage of agriculture involved continuous cropping of wheat and other grains, leading to soil erosion, nutrient depletion, and widespread pest outbreaks. Ditching and draining steadily diminished Wisconsin's ten million acres of wetlands. Many of the state's larger rivers were dammed to facilitate the logging boom that deforested the northern pineries by 1900. The subsequent cutting of northern hardwood forests would be all but complete by 1930, leaving in the aftermath millions of abandoned acres of barren and fire-prone "cutover" land. Wild fish and game populations were depleted, in some cases to the point of local extirpation (as in the case of elk and white-tailed deer) and ultimate extinction (as with the passenger pigeon). In short, the common asset resources of the state were exploited without check, leading to what later generations might term a crisis of sustainability. Fundamentally, the question before the citizens of Wisconsin was whether the mechanisms of democracy could be used in new ways to safeguard the long-term public interest in those natural assets.

Within a generation Wisconsin became a national leader in effective conservation policy and practice. By the mid-1900s, the trends in overexploitation and depletion were, if not halted, significantly slowed and in many cases reversed through restoration and management for sustainable yields. By the 1970s, Wisconsin stood at the forefront of the emerging environmental movement, responding to new threats such as air and water pollution, poor land-use planning, and the indiscriminate use of pesticides and industrial chemicals. The first Earth Day, observed in 1970 and led by Wisconsin's senator Gaylord Nelson, symbolized the state's continuing leadership in conservation and environmental stewardship, playing out now on a global stage.

Across these generations, Wisconsin's conservation and environmental legacy has been characterized by qualities that distinguish it from the legacies of, say, California or Massachusetts. These qualities include:

- a dynamic interplay between conservation and environmental science, ethics, policy, and practice;

- diverse and integrated approaches to conservation, embracing resource protection, sustainable management and stewardship, and ecological restoration;
- conservation efforts on public, private, and tribal lands, and across the landscape from wildlands to rural lands to urban lands;
- a robust tradition of collaborative and community-based approaches to conservation;
- and a strong focus on the role of public awareness and education in forging effective public policy.

But what *accounts for* these qualities and for Wisconsin's unusual record of leadership? Among the factors that conservationists and environmental historians have noted:

- Wisconsin's Native American nations have long played an active role in environmental caretaking.¹⁵
- Wisconsin's human and natural history can be easily read in the land, affording its citizens constant opportunity to appreciate the dynamic relationship between human and natural communities.
- As a state, Wisconsin grew in response to, and in concert with, the conservation and environmental movement.
- Wisconsin remains a largely rural state, and personal connections to land remain relatively strong.
- Wisconsin's is a "working" landscape of farms, forests, and development, but with wildness in relatively near proximity.
- Wisconsin is a tourism magnet, with a long tradition of hunting, fishing, and other outdoor recreational activities.
- Wisconsin's conservation commitment has, until recently, been carried forward through bipartisan political commitment.

This list draws upon the reflections of University of Wisconsin–Madison environmental historian William Cronon. In his essay "Landscape and Home: Environmental Traditions in Wisconsin," Cronon highlights an additional factor that explained Wisconsin's prominence in environmental affairs: the University of Wisconsin as an institution, and the Wisconsin Idea as its guiding philosophy. Cronon writes:

[The University of Wisconsin's] 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.¹⁶

In short, it is difficult to imagine the state's legacy of environmental leadership apart from the essential role that the university has played in fostering scientific knowledge, public awareness, and innovative policy.

WISCONSIN BEFORE THE CONSERVATION MOVEMENT

That role begins in the consequential year of 1848, when Wisconsin achieved statehood and established a public state university. Although the Wisconsin Idea was not reflected in the university's charter, the core of the Idea—that the state's primary institution of higher learning should serve the citizens of the state and the public good—soon took hold. The “Forty-Eighters,” political refugees who fled Europe after the failed reform movements of 1848, brought to Wisconsin a strain of German idealism and a high regard for education, science, and the role of reason in the public arena.¹⁷ Under the federal Morrill Act (1862), the University of Wisconsin became the state's land-grant university. Unlike many other states, Wisconsin did not establish a new university, but supplemented the existing University of Wisconsin, with its existing curriculum in the liberal arts, with new emphases in agriculture and engineering. As Cronon notes, that mixture of academic fields and competencies would ultimately enable the University of Wisconsin to become an incubator of conservation leadership.

In the second half of the 1800s, conservation did not yet exist as a movement, and the term did not carry its modern meaning. However, Wisconsin's Native American communities had developed abiding land-ethic traditions and practices over the centuries and millennia. Their continuing presence on the landscape provided models of resistance and resilience, their tribal cultures keeping traditional knowledge alive even as they adapted to modernity. Frontier Wisconsin was home to key individuals who would contribute importantly to the coalescing of the conservation movement. Carl Schurz was a Forty-Eighter who settled in Watertown, Wisconsin, and later served as a general in the Union army during the US Civil War and as US senator from Missouri (1869–75). As the US secretary of the interior (1877–81), Schurz focused public attention on the need for forest preservation.¹⁸ The geologist and ethnologist John Wesley Powell grew to adulthood in Walworth County, exploring Wisconsin and the rivers of the Mississippi basin, presaging his epic explorations of the

Colorado River and the American West.¹⁹ Both became national figures in reforming federal approaches to land settlement and land use, and in connecting science and policy through the agencies of government.

Other early figures had direct University of Wisconsin connections. The naturalist John Muir's consequential career as a defender of wild nature can be said to have begun with his several years as a student in Madison in the early 1860s, absorbing his first formal lessons in the natural sciences.²⁰ Increase Lapham, "Wisconsin's first scientist," was a quintessential naturalist of the 1800s, contributing to fields ranging from archaeology and botany to geology and zoology. His 1867 *Report on the Disastrous Effects of the Destruction of Forest Trees, Now Going on So Rapidly in the State of Wisconsin* was the first to sound a warning about the gathering threat of deforestation in the state. Lapham contributed to the founding and growth of many of Wisconsin's primary scientific and educational organizations, including the Wisconsin Geological and Natural History Survey, the Wisconsin Historical Society, and the Wisconsin Academy of Sciences, Arts and Letters. After Lapham's death in 1875, the University of Wisconsin acquired his extensive storehouse of fossils, minerals, plants, and other specimens and artifacts, forming the foundations of its herbarium and museum collections.²¹

Within the young state university, the establishment of agricultural research and education programs on campus marked the beginning of a dialogue at the intersection of agriculture and conservation that continues to this day, and that has distinguished Wisconsin's conservation legacy. The marriage of the liberal arts and agriculture that Cronon notes was somewhat fractious in its origins. As University of Wisconsin president (1874–87), John Bascom defined the vision of an educational institution informed by the Social Gospel and distinguished by its commitment to knowledge in service to society.²² At first this did not sit easily alongside the mission of training in the agricultural and mechanical arts as mandated by the Morrill Act. However, the university soon became a leader in agricultural reform, led by such key figures as Professor William A. Henry, Professor Franklin H. King, and dairyman William D. Hoard (who served as chair of the university's board of regents and as Wisconsin governor from 1889 to 1891). The University of Wisconsin College of Agriculture spurred the great transition, after the Civil War, from unsustainable continuous grain cropping to more diverse and regenerative dairy farming. Although the rise of dairying would bring its own set of conservation challenges, it served to stabilize rural life, the agricultural economy, and agroecosystems across much of southern Wisconsin.²³

In this "preconservation" era, few did more to strengthen the academic foundations of the Wisconsin Idea and its relevance to conservation than geologist

Thomas Chrowder (T. C.) Chamberlin, who served as University of Wisconsin president from 1887 to 1892. Chamberlin did not share Bascom's qualms about the mingling of the liberal arts, sciences, and applied fields. As exemplified by the University of Wisconsin's role in the dairy revolution, Chamberlin comprehended the links connecting all the components of the university, and championed the Wisconsin Idea as it gained sharper definition. "Scholarship for the sake of the scholar is simply refined selfishness," he wrote in 1890. "Scholarship for the sake of the state and the people is refined patriotism."²⁴ In addition to his service as a visionary educational leader, Chamberlin's extensive contributions as a scientist provided foundations for all those who would make the University of Wisconsin a global leader in geology, climatology, and the other earth sciences.²⁵

By the 1890s the cutover forestlands of the upper Great Lakes had become a focal point for policy reform and innovation at the national and state level. The imminent exhaustion of northern pine forests was a key factor behind passage of the US Forest Reserve Act of 1891. The act established the first federal forest reserves, later renamed *national forests*, on the public lands of the American West. In Wisconsin the policy challenge involved not forest protection, but the reality of forest depletion. In 1897 the Wisconsin legislature established a State Forestry Commission. That same year, forester Filibert Roth delivered the first lectures in forestry at the university. As with the shift from wheat to dairy, the emergence of professional forestry over the next decade marked the beginning of the effort to put Wisconsin's (and the nation's) frontier economy of unchecked land exploitation on a new and more sustainable basis.²⁶ The fate of the cutover lands would remain a critical public policy issue for the next three decades.

Disrupted though Wisconsin's ecological landscape was, it held within it the seeds of social and political reform. Land exploitation had, as one its ancillary effects, the channeling of extracted wealth into the accounts of the Midwest's lumber barons, rail bosses, and milling and mining magnates—and from there into the coffers of political parties and campaigns. In Wisconsin and much of the Upper Midwest, the movements for land-use reform and political reform were commingled. Wisconsin's famed historian (and student of T. C. Chamberlin) Frederick Jackson Turner identified the significance of the passing of the Euro-American frontier in 1893. The consequences of that transition for culture, democracy, economics, and the land raised basic questions that Americans had never faced so directly before. Could a self-governing populace overcome the power of concentrated wealth to make government work for the general welfare of all citizens? Could policy changes address the inherent connections between society and the landscape in which it is embedded? In

modern terms, could Wisconsin as a *linked socio-ecological system* be placed on a more durable ecological footing? In the first decade of the twentieth century, these questions framed the rationale and political mission of the Progressive Era conservation movement in Wisconsin and nationwide. The University of Wisconsin would play a disproportionate role in defining conservation. Conservation in turn became one of the central public issues that would help to define the Wisconsin Idea.

CONSERVATION, THE PROGRESSIVE MOVEMENT, AND THE WISCONSIN IDEA

In 1910 University of Wisconsin president (1903–18) Charles Van Hise published *The Conservation of Natural Resources in the United States*. Based on a series of university lectures, the book was the first “correlated statement [on conservation] covering the minerals, waters, forests, soils, their relations, and the relations of the subject as a whole to humanity.”²⁷ Van Hise, another of Wisconsin’s eminent geologists, stood at the intersection of education, science, and national policy, working alongside Wisconsin governor (1901–6) and US senator from Wisconsin (1906–25) Robert M. La Follette Sr. and the insurgent Wisconsin progressives, as well as the national conservation leadership under Theodore Roosevelt. Van Hise was a central figure at the 1908 White House Conference of Governors, in many ways the high-water mark of the nascent conservation movement.

Van Hise’s text provided not only a comprehensive summary of scientific and technical information but a statement of conservation principles. Progressive Era conservation aimed to promote the efficient use and reuse of materials, to ensure “complete utilization” of flowing waters and to renew degraded forests and other organic resources. These principles “require for their practice a sense of social responsibility upon the part of the individual and the corporation.” They had, too, to be “embodied in the law and the law enforced by the community.”²⁸ Such legal means had in 1908 been reinforced by the US Supreme Court, which held that the state, “as quasi-sovereign and representative of the interests of the public, has a standing in court to protect the atmosphere, the water, and the forests within its territory, irrespective of the assent or dissent of the private owners immediately concerned.”²⁹ This alignment of scientific expertise, education, economics, policy, and enforcement would be a hallmark of the Progressive Era conservation movement.³⁰

But to what end? Van Hise answered that question as well. Conservation, he wrote, “is for man. Its purpose is to keep the resources of the world in sufficient abundance so that man may have a happy, fruitful life, free from

suffering—a relatively easy physical existence.”³¹ It was a philosophy of conservation shared by Van Hise’s contemporary and Roosevelt’s “chief forester,” conservationist Gifford Pinchot: “The first great fact about conservation is that it stands for development. . . . Conservation does mean provision for the future, but it means also and first of all the recognition of the right of the present generation to the fullest necessary use of all the resources with which this country is so abundantly blessed.”³² Pinchot provided the byword for the utilitarian approach to conservation, holding that it was to serve “the greatest good to the greatest number for the longest time.”³³ Wisconsin (and the United States) might eventually come to be understood as socio-ecological systems, but the human economic components of those systems would, according to the Progressive Era’s concept of conservation, come first and foremost.

Notwithstanding, that is, Wisconsin alum and expatriate John Muir. Having long since decamped for California and sauntered up-elevation into the Sierra Nevada, Muir provided an alternative worldview behind the fight for conservation: “The world, we are told, was made especially for man—a presumption not supported by all the facts. A numerous class of men are painfully astonished whenever they find anything, living or dead, in all God’s universe, which they cannot eat or render in some way what they call useful to themselves.”³⁴ The storied schism between utilitarian and preservationist approaches to conservation would play out for decades to come—indeed, it continues in contemporary debates involving priorities in the environmental movement.³⁵ Wisconsin, and the University of Wisconsin, would remain at the center of that essential debate.

This philosophical divide was not conservation’s only persistent tension. Progressive Era conservation policy emphasized top-down administration and rational management of resources by ostensibly neutral scientific experts working in centralized government agencies. This quickened, in turn, the trend toward specialization within the varied fields of resource management (forestry, fisheries management, soil science and agronomy, wildlife management, recreation, etc.). While the role of local citizens and communities in policy and decision-making was largely neglected, the entrenched economic interests behind resource development continued to exert their dominant political influence.

As these fundamentals of conservation—and these fundamental tensions *in* conservation—were coming into focus, so too was the Wisconsin Idea. In 1900 the university’s Board of Regents declared in its *Biennial Report* that “the state will not have discharged its duty to the University nor the University fulfilled its mission to the people until adequate means have been furnished to every young man and woman in the state to acquire an education at home in

every department of learning.”³⁶ In 1905 Van Hise gave his own classic expression of the Idea: “I shall never be content until the beneficent influence of the university reaches every family of the state.”³⁷

These statements stand as key points in the development of the university’s extension function. Antecedents to the university extension system dated back decades. These efforts accelerated under Van Hise.³⁸ The regents established the Division of University Extension in 1906. Passage of the federal Smith-Lever Act in 1914 bolstered Extension by providing support through the US Department of Agriculture. University Extension became for many the most tangible expression of the Wisconsin Idea, connecting citizens and the university campus. It also became a primary conduit for the collection and dissemination of conservation information statewide. Given its key role at the interface of the public and the university, Extension could also be seen as a continual testing ground for the Wisconsin Idea. How best could university-based researchers serve the evolving public interest? And how best could the public, via Extension, both shape and benefit from the work and resources of the university?

THREE GENERATIONS OF CONSERVATION AND ENVIRONMENTAL LEADERSHIP

As conservation became an important piece of the university’s portfolio and a core area of state policy, it was woven into Wisconsin’s lifeways and landscapes. And across the twentieth century, the University of Wisconsin would play a central role in Wisconsin’s rise to leadership in conservation and the modern environmental movement. That story is too extensive even to summarize here. However, key themes, individuals, and episodes in that story illustrate how the Wisconsin Idea contributed to the state’s prominent role:

- In addressing the vexing problem of restoring the vast northern cutover, Wisconsin became an academic center for innovation in land-use and agricultural economics.³⁹ Professor Henry C. Taylor established the University of Wisconsin Department of Agricultural Economics within the College of Agriculture in 1909. Together with colleagues Benjamin Hibbard, George Wehrwein, and others, he provided innovative economic tools for reforming land use across Wisconsin. Economist Richard T. Ely founded the university’s Institute for Research in Land Economics and Public Utilities in 1920. He and economist John R. Commons made the university home to the field of institutional economics, emphasizing interdisciplinary inquiry and collective action through social institutions, rather than the study of abstract economic laws.⁴⁰

- In the midst of the Great Depression, the University of Wisconsin College of Agriculture enlisted the eminent regionalist painter John Steuart Curry as its artist-in-residence—the first such residency established at any American university. Under Dean Chris Christensen and University of Wisconsin president Glenn Frank, the university emphasized the connection between the arts and sciences on campus. And through the university extension system, the College of Agriculture highlighted the role of the arts in contributing to the quality of rural life.⁴¹
- Aldo Leopold's *A Sand County Almanac*, published posthumously in 1949, was itself in many ways a product of the spirit of innovative outreach in the College of Agriculture. Leopold's core contribution, in the *Almanac* and elsewhere, was to recognize the revolutionary perspective that the science of ecology brought to the management of natural resources, public policy, education, ethics, and aesthetics. Leopold held that “the citizen conservationist needs an understanding of wildlife ecology not only to enable him to function as a critic of sound policy, but to enable him to derive maximum enjoyment from his contacts with the land.”⁴² Through his fifteen years as a University of Wisconsin faculty member (1933–48), Leopold devoted a significant portion of his time to sharing—in person and in print, in the lecture hall and over the airwaves—the lessons of ecology and the substance of his “land ethic” philosophy.⁴³ That philosophy challenged the assumptions of both utilitarianism and preservation, opening conservation to a broader range of values and a reconfigured set of social and ecological goals.⁴⁴
- Wisconsin became (and remains) a global leader in the study of freshwater systems due to the work of generations of university researchers. Edward Birge, Chancey Juday, Arthur Hasler, John Magnuson, Steven Carpenter, and a host of other eminent scientists examined in innovative ways not only the physical, biological, and ecological functions of aquatic ecosystems, but the social interactions that characterize and affect those systems.⁴⁵

Even this tiny sample from its rich history demonstrates why the University of Wisconsin became so important a crucible for conservation. University researchers contributed significantly to virtually every branch of the basic and applied natural sciences, social sciences, and humanities. The breadth of disciplinary expertise available on campus was matched by a commitment to problem-solving that required applied and interdisciplinary approaches. Conservation Wisconsin-style began to outgrow the narrow utilitarianism of its origins and to explore its broader social, economic, and ethical implications. The fusion—or at least the engagement—of the natural and social sciences and the humanities helped carry conservation beyond government chambers,

research laboratories, and classrooms, and connected it in concrete ways with Wisconsin's citizens and communities. Conservation was no longer the domain of experts, managers, and policymakers, but increasingly an arena of citizen participation and action.

This participatory approach emerged in 1927 with new laws, guided by the University of Wisconsin land economists and with strong citizen support, to reform forestry and land use in northern Wisconsin. That same year, sportsmen and other citizen-conservationists led the way in enacting another law that established a Wisconsin Conservation Department, overseen by an independent citizen board that would in turn appoint a professionally qualified director. Several years later, in 1934, the Conservation Department established the annual Conservation Congress as a means of encouraging citizen involvement in decision-making.⁴⁶

These institutional innovations were matched on the ground by new programs to promote reforestation, soil conservation, and land restoration. One especially important project was the pioneering watershed conservation efforts at Coon Valley in western Wisconsin. By the early 1930s, watersheds across the Driftless Area of the upper Mississippi River basin were in crisis due to extreme rates of soil erosion and sedimentation. Coon Creek, Wisconsin, became the focus of the nation's first watershed conservation demonstration project. Agency and university experts were closely involved, but the project could and would succeed only through the active participation of the watershed's farmers. More than four hundred signed up. The New Deal's Civilian Conservation Corps supplied additional labor, bringing unemployed urban youth into the Wisconsin countryside. This "adventure in cooperative conservation," as Leopold described it, turned the tables on conservation as undertaken by the earlier Progressive movement.⁴⁷ This was conservation literally from the ground up, seeking new ways to integrate and apply multidisciplinary knowledge, to engage the citizens most affected, and, more broadly, to protect the public interest in private land.

Coon Valley was not the only promising example of collaborative conservation arising in the uneasy 1930s. These innovations were soon overwhelmed, however, by national and global events. World War II altered the character of conservation and the role of science *in* conservation—and in society—in basic ways. In particular, the postwar creation of the National Science Foundation (NSF) put into place the modern mechanism for federal funding of science through a national research agency. It was a contentious birth. Several years of congressional debate over the administration of science policy reflected questions directly relevant to the Wisconsin Idea. Should the nation's research agenda be directed primarily by scientists and other experts, or by the wider

public through its civil servants? Should funding be channeled toward a few elite institutions or should it be more widely distributed? Should support be provided for basic research or also for the social sciences? By the time the NSF was established in 1950, the proponents of the more centralized, expert-driven model prevailed.⁴⁸ The consequences of that outcome continue to echo into our time.

In the meantime, rapid postwar changes in American society, economics, technology, and land use were altering the context of the conservation. The University of Wisconsin was uniquely poised to play a leading role in the emergence of the modern environmental movement. The university's culture of conservation had passed on to a new generation of academic leaders in Madison and throughout the statewide system of university campuses. Wisconsin's array of university researchers continued to forge new directions in ecology and other natural sciences, the applied fields of resource management, and policy-relevant social science. As Wisconsin governor (1959–63), Gaylord Nelson—native of Clear Lake and graduate of the University of Wisconsin Law School—actively enlisted university faculty in new planning initiatives that addressed intensifying demands on Wisconsin's lands, waters, and wildlife. As US senator from Wisconsin (1963–81), Nelson became nationally recognized as a prominent advocate of environmental reform, especially through his role in organizing the first Earth Day.⁴⁹ That same year the University of Wisconsin–Madison established what is now the Nelson Institute for Environmental Studies to promote interdisciplinary research, instruction, and outreach.

Nelson's leadership represented in many ways an expansion of the Wisconsin Idea, and its catalytic role in conservation, from the state to the national and global stage. Nelson inherited a tradition of conservation policy, citizen advocacy, and land ethics that made this seem a natural next phase in the evolution of the movement. As US senator, Nelson was explicit in his goal of putting conservation on the national political map, at a time when few elected officials gave it attention, much less priority. But he also recognized the need to engage academic expertise *and* foster grassroots public engagement. Nelson was accustomed to calling upon university experts in public policy-making, and university campuses around the nation served as hubs for Earth Day organization and action. Finally, Nelson framed his aims in both social and ecological terms. "Our goal," he stated on Earth Day, "is not just an environment of clean air and water and scenic beauty. The objective is an environment of decency, quality, and mutual respect for all other human beings and all other living creatures."⁵⁰

The rather astonishing success of the American environmental movement in quickly establishing itself as a political force can be attributed to many

causes and influences, emanating from many centers of social and political change around the nation.⁵¹ Wisconsin's special contribution reflected its deep and distinctive conservation roots and the essential role of the Wisconsin Idea in shaping environmental science, policy, and ethics.

DIVIDE AND CONQUER

Sometimes overlooked in the light of Nelson's transformative career was the broad political base that allowed for innovative conservation and environmental policies to take hold in Wisconsin in the 1960s and 1970s.⁵² The institutional foundations of conservation in the university, the state government, the political parties, and civil society were robust enough to weather—in fact, to lead—the transition from the older conservation movement to the modern environmental movement. That transition involved basic shifts in Wisconsin and national political culture. In general, conservation had its primary base in rural communities and landscapes; environmentalism's core constituency resided in the cities and suburbs. Issues of land use and the stewardship of natural resources now competed with concerns over environmental contamination and pollution control. In addressing these issues, emphasis shifted away from education and cultural change and toward legislative and regulatory measures. As ecology and related environmental sciences grew increasingly sophisticated, they began to identify and address complex new problems (e.g., toxicology, anthropogenic climate change, biodiversity loss). As the purview of conservation and environmental policy *expanded* to embrace national and global issues, it *deepened* to consider the structural causes and economic drivers of environmental degradation.⁵³

Until the 1990s Wisconsin's tradition of shared conservation values and bipartisan consensus tempered the tensions arising from these shifts. The university remained a bulwark and a trusted source of information and instruction. The commitment to environmental education and scientific information as the basis of sound policy withstood the gathering forces of ideological polarization. But Wisconsin was not immune to those forces. Through the 1990s, environmentalism became one of the arenas where lines of partisan loyalty hardened and culture wars broke out. Instead of a space of common values and strategic compromise, environmental policy became another battleground in the standard competition of political philosophies: private interest vs. the public good; local control vs. the centralized state; the reign of the free market vs. the regulatory authority and responsibility of the state; bottom-up, voluntary stewardship vs. top-down, "command and control" management.

At the national level, an environmental backlash gained traction during the presidency of Ronald Reagan (1981–89), leading the Republican Party as a whole to move away from its own long-standing conservation tradition. Meanwhile, as the Democratic Party's political base became increasingly urban, it neglected the trends that were hollowing out the communities and economies of rural America (especially those that came with the postwar industrialization of agriculture). While generally supportive of strong environmental policies, Democrats found themselves vulnerable to the driving of political wedges along the increasingly evident urban-rural divide.⁵⁴

One might choose any of a number of issues to illustrate these trends, but the most obvious one is also the most consequential: climate change. Although the basic science behind climate change dated back well into the 1800s—and University of Wisconsin researchers had contributed importantly to that body of science—it was not a matter that the older conservation movement had to confront. Until the late 1980s, climate change was not a particularly divisive or partisan topic. Both political parties had advocates for forward-looking policy—and neither gave it necessary urgency, or fully recognized it as an unprecedented social and political challenge.⁵⁵ Instead, as evidence mounted and the political power of the fossil fuel industries exerted itself, climate change as an issue was driven into deep ideological ruts. It became what it remains today: an extreme example of the limitations of scientific knowledge—and the power of special interests to deflect that knowledge—in shaping effective public policy.

In Wisconsin these trends fundamentally challenged and changed Wisconsin's conservation tradition, and eventually brought into question the resilience of the Wisconsin Idea at the core of that tradition. Tommy Thompson, the Republican governor of Wisconsin from 1987 to 2001, recognized the importance of the University of Wisconsin to the state and advocated policies that reflected the Republican Party's traditional support for conservation. Yet in other ways Thompson undermined that tradition—by, for example, turning the state's independent Department of Natural Resources secretary into a governor-appointed position. Wisconsin governor James Doyle (2003–11), a Democrat, oversaw modest conservation gains, but in general did not place a high priority on strengthening environmental policies. When presented with the opportunity to sign legislation restoring the independence of the Department of Natural Resources secretary, he declined to do so.

The stage was then set for the rise of Scott Walker, the Republican governor of Wisconsin from 2011 to 2019. It was a signal of things to come when Walker, on his first day in office, in his first executive order, called upon the state legislature to meet in special session to (among other items) weaken wetland

protections.⁵⁶ Over the next eight years, the Walker administration systematically undermined many of the basic institutional foundations of Wisconsin's conservation tradition.⁵⁷ Most pertinent with regard to the Wisconsin Idea, Walker and his allies in the state legislature instituted substantial funding cuts to the University of Wisconsin campuses, reduced the capacity of the University of Wisconsin–Extension system, removed University of Wisconsin scientific experts from state advisory committees, gutted the scientific bureau within the state's Department of Natural Resources, and reduced state-mandated environmental education efforts. Opponents thwarted other proposals, including Walker's effort in 2015 to eliminate the Wisconsin Idea itself as the guiding philosophy of the state university system.⁵⁸

For many in Wisconsin, it came as a shock that the state's conservation legacy, so fundamental to its identity, could be so easily and swiftly dismantled. But the winds had been shifting for decades. The tools of "divide and conquer" politics had long since been sharpened and were well-funded. However justified or not, the denigration of science and suspicion of higher education had been growing for decades, as had frustration with bureaucratic procedures and top-down environmental policies. The ever-increasing power of money in electoral politics, the rise of the hyper-partisan media, the politicization of the judiciary, and the disruption of the Great Recession from December 2007 to June 2009—all served to erode the foundation of shared conservation values. The rural-urban divide widened in Wisconsin as elsewhere, with few seeking to understand the cultural, economic, and demographic changes that exacerbated the divide (even as others exploited those changes for political gain). Many modern heirs to the conservation tradition had failed to read these signals or were otherwise unable to adapt and respond to these trends. And for younger generations, much of Wisconsin's special conservation history was simply unfamiliar to them.

The response to climate change again demonstrated all too well the consequences of these developments. With some of the nation's leading climate scientists on hand in Madison and at other University of Wisconsin system campuses, the state was well positioned to be a leader in charting a course into the uncertain future. Scientists in the Wisconsin Department of Natural Resources and at the University of Wisconsin–Madison came together in 2007 to form the Wisconsin Initiative on Climate Change Impacts (WICCI). The effort soon expanded to include representatives from other state and federal agencies, the University of Wisconsin System, Wisconsin's tribal communities, businesses, and nonprofit organizations. WICCI released its first report in 2011 as Scott Walker came into office.⁵⁹ Although university scientists were able to

continue their research, and the WICCI partnership ostensibly survived, the Department of Natural Resources no longer provided leadership. Indeed, administrators directed the state agency to scrub information about climate change from its website, and instructed its personnel to avoid mentioning the topic. In one episode that made national headlines, Tia Nelson, executive secretary of the Wisconsin Board of Commissioners of Public Lands (and daughter of Gaylord Nelson), was forbidden to discuss the topic or to undertake any work related to climate change.⁶⁰ Even as the impacts of anthropogenic climate change took an increasing toll within Wisconsin and beyond, the state government had actively abandoned its leadership role.

By the time Scott Walker left office in January 2019, Wisconsin's conservation legacy, and the Wisconsin Idea with it, had been severely tested. As rather bluntly reported in the *Milwaukee Journal Sentinel*, the largest newspaper in Wisconsin, "Walker's tenure was controversial and consequential, a dramatic break from Wisconsin's traditions."⁶¹ The conservation ethic that was for so long a hallmark of Wisconsin's civic culture bore the scars of that break. As did Wisconsin's land. The people of Wisconsin were indeed well *divided*. Fifty years after the first Earth Day, the question remains: Has conservation as an expression of the public interest been *conquered*?⁶²

A LEGACY RECLAIMED?

To answer that question, the hard reality must be faced directly. The conservation and environmental values that made Wisconsin a leader and that were thought to be a rock-solid and distinguishing part of our character have languished. The shared commitment to conservation has faded—has in fact been directly and effectively attacked. Conservation in Wisconsin and nationally is now caught in the bind of our political culture's hard ideological dualism. Is there a way forward?

In 1952 US political leader and diplomat Adlai Stevenson hailed the Wisconsin Idea by stating, "The Wisconsin tradition meant more than a simple belief in the people. It also meant a faith in the application of intelligence and reason to the problems of society. It meant a deep conviction that the role of government was not to stumble along like a drunkard in the dark, but to light its way by the best torches of knowledge and understanding it could find."⁶³ Amid a postwar atmosphere of technological optimism, economic expansion, and Cold War anxiety, Stevenson affirmed that the Wisconsin Idea, born to address an older set of circumstances, could continue to provide guidance in a rapidly changing world. But he also provided a subtle hint that the Wisconsin Idea had to evolve. *Knowledge* was necessary, but insufficient, to address problems;

understanding was also needed. Science, in and of itself, does not and cannot determine policy. Science provides essential information about how the world works, but it cannot prescribe how society uses that information. Understanding, informed by values and ethics, guides society's application of knowledge.

It is precisely because values, ethics, and competing priorities shape policy-making that conservation can become so divisive—but can also bridge divides. What we mean today by *conservation* is very different from what it meant a century ago. It remains a contested term and an evolving idea. Meanwhile, Charles Van Hise and “Fighting Bob” La Follette and Aldo Leopold would not recognize the term *environment* as now used. But the fundamental aim of conservation remains sound: to promote thriving human and natural communities within healthy landscapes. And that requires knowledge, moral leadership, engaged citizens, and creative institutions dedicated to the long-term public interest. We will need these things even more than our ancestors did as we confront the synergistic challenges involving climate change, water, food, energy, biological diversity, health, justice, equity, and economic resilience.

What might such a reinvigorated commitment to conservation under the Wisconsin Idea look like? The way forward might well begin by facing directly the same gaps and tensions that have allowed that commitment to wane. Instead of pursuing research in isolation from its cultural context, scientists would explicitly explore the ethical assumptions and socioeconomic implications of their research. Instead of ignoring or downplaying the indigenous knowledge of Wisconsin's Native American communities, institutions would value and draw upon traditional wisdom within the context of an ever-evolving land ethic. Instead of exploiting differences between our urban and rural communities, elected officials would focus on the continuity and connections between them. Instead of weighing success by narrow quantitative measures of productivity and efficiency, agriculture would again consider how profoundly our food systems shape our health and the quality of rural life, communities, and landscapes. Instead of scientific research fragmented into disciplines and detached from the realities of the entire land community, universities would look again to the land and ask hard questions involving long-term resilience. Instead of turning away from the sobering reality of anthropogenic climate change, skeptics and agnostics would turn toward it with full acknowledgment of the responsibilities we bear and the epic changes we must undertake. Instead of depending on and expecting leadership on these matters to come from above, citizens would collectively realize that they must first grow from the soil, the grassroots, and our communities.

It is hard to envision making progress on these points in the harshly divided political landscape we now inhabit. If Wisconsin's conservation legacy is to be

reclaimed, new approaches to political dialogue must take hold and new opportunities for consensus must be created. As conservation biologist David Ehrenfeld has written, “Clear and ominous portents warn us to change course, to use the wisdom we have accumulated and select from the conservative and liberal traditions the timeless, disaster-defying elements best suited for life in the different and difficult world ahead.”⁶⁴ Jim Kurth of the US Fish and Wildlife Service has spoken to this same need to draw upon the best aspects of our competing political philosophies: “There is nothing more conservative than the conservative use of natural resources. There is nothing more progressive than building a sustainable future for our nation and our planet. They are, of course, the same thing.”⁶⁵ As goes our political culture, so goes the Wisconsin Idea. As goes the Wisconsin Idea, so goes conservation in Wisconsin.

In his 1995 article “The Wisconsin Idea: The University’s Service to the State,” lawyer and former English professor Jack Stark noted that the fate of the Wisconsin Idea is not assured. “A major determinant of the Wisconsin Idea’s future is desire, the desire of state government’s policymakers and University administrators and faculty members. If they resolutely decide that the Idea will die, it will die. If they resolutely decide that the Idea will become stronger, it will become stronger.”⁶⁶ Yet history as well as recent events have shown that the destiny of the Wisconsin Idea reflects the desire not only of those in government and academia, but of citizens throughout the state. Historically, the citizens of Wisconsin made and maintained the Wisconsin Idea as a living reality. And when in 2015 the Wisconsin Idea was attacked, Wisconsin citizens showed that they cared enough to sustain it in the face of powerful political opposition.

In a similar manner, neither the state government nor the University of Wisconsin can *conserve* Wisconsin, or the world. In the long run, only citizens and communities can do that. But conservation will always require that citizens have access to teaching and training, research and knowledge. It will need institutions to nurture the next generation of conservation leaders, teachers, scientists, and practitioners. It will need government officials dedicated to the long-term public good, receptive to scientific information, and able to inspire community action. And it will entail a retooled Wisconsin Idea that can link *knowledge to understanding to policy*.

The journey of conservation continues, in Wisconsin and the world. That journey has always been marked by advances and retreats, dead ends and new directions. And the Wisconsin Idea has evolved with it. What will the picture of the Wisconsin Idea look like in the future? Perhaps it will show students at a workshop on urban gardening in Milwaukee, or Ojibwe elders working alongside researchers in the *manoomin* (wild rice) beds of a northern lake, or

perhaps even musicians returning to the stanchions of an organic dairy. In a thousand different ways, we may imagine how in Wisconsin we can still—can again—“put the sciences and arts together for the purpose of understanding our environment.”

NOTES

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4. See especially Aldo Leopold, *Aldo Leopold, for the Health of the Land: Previously Unpublished Essays and Other Writings*, ed. J. Baird Callicott and Eric T. Freyfogle (Washington, DC: Island Press, 2001).

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56. State of Wisconsin Office of the Governor, Executive Order #1 Relating to a Special Session of the Legislature, https://docs.legis.wisconsin.gov/code/executive_orders/2011_scott_walker/2011-1.pdf.

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59. WICCI (Wisconsin Initiative on Climate Change Impacts), *Wisconsin's Changing Climate: Impacts and Adaptation* (Madison: University of Wisconsin Board of Regents, 2011), https://www.wicci.wisc.edu/report/2011_WICCI-Report.pdf.

60. Steve Verburg, "Months after Climate Change Gag, Earth Day Founder's Daughter Moves On," *Wisconsin State Journal*, July 21, 2015, <https://madison.com/wsj/news/>

local/environment/months-after-climate-change-gag-earth-day-founder-s-daughter/article_040be7eb-3a91-502c-8834-90840b9c1a93.html.

61. Bill Glauber and Patrick Marley, “Scott Walker’s Eight Years as Governor Ushered in Profound Change in Wisconsin,” *Milwaukee Journal Sentinel*, January 4, 2019, <https://www.jsonline.com/story/news/politics/2019/01/04/scott-walkers-eight-years-wisconsin-governor-were-consequential/2473616002/>.

62. On April 22, 2019, the forty-ninth anniversary of the first Earth Day, Wisconsin’s former governor Tommy Thompson and former US senator Russ Feingold wrote: “As a conservative Republican and a progressive Democrat, we don’t agree on many things, but we both believe that Americans need to be good stewards of the natural resources upon which our environment, economy and public health are dependent. We need to put partisanship aside and focus on finding commonsense solutions that will make this world more prosperous for this and future generations.” Russ Feingold and Tommy Thompson, “On Earth Day, Let’s Restore Bipartisanship on the Environment,” *USA Today*, April 22, 2019, <https://www.usatoday.com/story/opinion/2019/04/22/earth-day-find-bipartisan-common-ground-serve-environment-column/3508991002/>.

63. Stark, *Wisconsin Idea*, quotation from p. 101.

64. David Ehrenfeld, *Becoming Good Ancestors: How We Balance Nature, Community, and Technology* (New York: Oxford University Press, 2009), quotation from p. 241.

65. National Wildlife Refuge System chief Jim Kurth (commencement remarks, University of Wisconsin–Stevens Point, May 19, 2012), https://www.fws.gov/refuges/Kurth_Commencement_Speech/.

66. Stark, *Wisconsin Idea*, 172.