

LEOPOLD

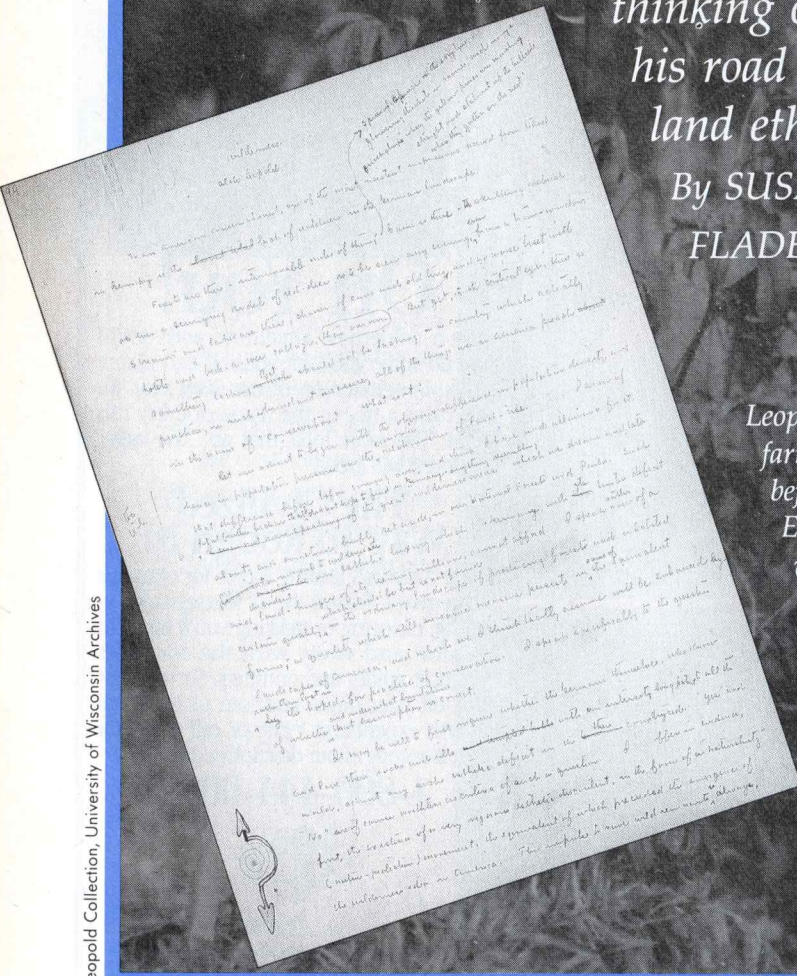
On Wilderness

An unpublished essay penciled during his only trip abroad reveals an epiphany in Leopold's

thinking on his road to a land ethic.

By SUSAN FLADER

Leopold on the farm he acquired before his trip to Europe, where he wrote, in pencil on yellow paper, this essay found in his desk after his death.



In Aldo Leopold's desk when he died was a file of unpublished manuscripts that had accumulated over a lifetime of penetrating reflection on a wide range of conservation issues. Some were just fragments, beginnings of ideas for future essays; others were polished pieces—speeches, reports, technical and policy analyses, philosophical essays—that for one reason or another did not see print. "Wilderness," in which Leopold muses on an esthetic deficit he noted in the landscape of Germany on a trip there in 1935, was found handwritten in pencil on yellow paper.

Leopold was not chary of consigning his words to print. During the course of his career he published some 500 articles and three books, culminating in his masterwork, *A Sand County Almanac*, accepted for publication just days before his untimely death in 1948. A representative selection of his writings, published and unpublished, including his essay on Germany, is now appearing in book form: *The River of the Mother of God and Other Essays by Aldo Leopold* (University of Wisconsin Press, 1991, copyright Aldo Leopold Shack Foundation). The essays, spanning nearly half a century from Leopold's schooldays in the early 1900s to his death, offer insight into the evolution of

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his thinking on a range of lifelong concerns including the principal themes of the *Almanac*—ecology, esthetics, and ethics—and his professional interests in forestry and wildlife management, soil conservation, conservation economics, sustainable agriculture, and the preservation of wilderness.

Leopold's reflections on Germany's landscape came at a critical time in his intellectual development. Indeed, the trip to Germany, his only voyage abroad, marked an epiphany in his personal transmutation of values—in his thinking about means and ends in his chosen professions, forestry and wildlife management, on his road to a land ethic.

In this year of the National Forests Centennial, it is appropriate to note that Leopold began his career as a forester in the national forests of the Southwest. Much as he sought to expand the boundaries of the forestry profession to include concern for wildlife, wilderness, and the integrity of mountain watersheds, he was thoroughly imbued with the traditional notion of conservation as efficient, scientific management for a sustained yield of forest products. In 1928 he left the Forest Service to begin laying the groundwork for a new profession, game management, modeled on the profession of forestry, and by 1933 he had published a major text for the new field and accepted a chair of game management created for him at the University of Wisconsin.

Then, out of the blue in June 1935, came

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Pinchot's jurisdiction. Just a month later, Pinchot's agency was receiving double its previous appropriation under its new title, the U.S. Forest Service.

And then TR and Pinchot really got down to business, so much so, in fact, that early in 1907 Congress moved to prohibit the president from proclaiming additional forest reserves in six western states (the states, of course, with the most forest acreage). As part of a major legislative package, the bill was too important for Roosevelt to simply veto, but if sign the bill he must, he did not have to sign it *immediately*. Over the next week and a half, the lights at the White House burned far into the night. Gifford Pinchot pored over his maps, those indicating which forests still required protection in the six affected states. Each time Pinchot pointed his finger, Roosevelt drew his pen.

By March 2, 1907, and the close of congressional business, more than 16 million acres of new forest reserves (known ever since as "the midnight forests") had been established, each in direct opposition to the bill still sitting on Roosevelt's desk. And then, Pinchot's forests safely proclaimed, TR picked up his pen one more time, finally signing away his authority to do what he had already done.

Cynically, perhaps, if sometimes with good reason, many Americans no longer consider their national leaders to be as vital or as committed. Then

again, our cynicism may reflect nothing but our reluctance to admit that the beginning of any movement is often its most exciting stage. There have been scores of major accomplishments since the days of TR—most have simply been approved with far less personal flair. Still, that does not make them less important. The acquisition of private lands for national forests throughout the East; the Wilderness Preservation Act of 1964; and still more recently, the many directives authorizing the Forest Service to manage a broad range of other wild, scenic, and recreational lands—these too have been significant milestones in the history of the national forests. It's just that, lacking Roosevelts and Pinchots, they have not fired our imaginations in quite the same way.

In the final analysis, the erosion of credibility that is the fate of government forestry today is probably traceable in large part to elements of indifference to the historical record. The promise 100 years ago was a national forest system that not only secured the country's means of wood production but also protected the landscape as a source of national pride. In managing the national forests, beauty and utility were to be viewed as inseparable.

No wonder that Gifford Pinchot lost patience with so-called preservationists. Schooled in Europe, he based his own line of reasoning on that classical forest model. Trees would not be cleared; rather they would be thinned.

LEOPOLD ON WILDERNESS

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an invitation from the Oberlaender Trust of the Carl Schurz Memorial Foundation for an all-expenses-paid trip to Germany and other central European countries to study forestry and game management. The Germans had been practicing these arts for centuries and Leopold, who had grown up in a German-American family and was joshed by his schoolmates about his "German soul," was keenly interested to see what they were doing.

Germany in 1935 was already entering the grip of Nazi militarism, a fact that could not escape Leopold and his fellow touring foresters, though it is doubtful that they appreciated the crucial role of forest products in Hitler's

mobilization for economic self-sufficiency under the direction of chief forester Hermann Göring, or considered the possibility that some of the extraordinary hospitality they received might be calculated to create a favorable impression of German forestry among people who could spread the word.

Leopold was impressed by much that he saw in Germany, but he was also profoundly unsettled by it. Germany, after a devastating experience with soil sickness brought on by wholesale conversion to monotypic plantations of spruce or pine, had shifted around 1914 to a more ecologically informed policy of *Dauerwald* or "permanent woods"—mixed forests

Always selective, the forester could not help but remain sensitive to the natural environment as a whole, including—and especially—its distinctive scenic qualities.

The later contention that the classical forest was old-fashioned and inefficient was the undoing, in many respects, of the historical alliance between landscape esthetics and the national forest idea. So, too, advocates for the protection of biological diversity, principally scientists and environmentalists, have openly rejected all but the classical forest model or its derivatives. Simply, a forest that appears to be whole is more likely to be whole, whether in terms of natural beauty or biological integrity. Here again, the rejection of classical forestry may be said to have pitted the aims of modern management against the evolution of America's cultural values.

Which will it be—a system of management that continually fragments and compartmentalizes indivisible natural qualities, or, as originally promised, working forests that are universally functional, beautiful, and ecologically sound? In this, the centennial year of the National Forest System, that remains the enduring challenge. One thing is certain: Through history, that is the kind of forests—and forest management—most Americans have said they want. Ultimately, it therefore stands to reason, it is the only kind they will accept. **AF**

naturally reproduced—coupled with an aggressive, nationalistic *Naturschutz* movement aimed at preserving small remnants of native flora and fauna. But the Germans were still managing the bulk of their land for both high-yield timber and high-density deer and other game. As Leopold observed in a communication to his departmental newsletter, "One cannot travel many days in the German forests, either public or private, without being overwhelmed by the fact that artificialized game management and artificialized forestry tend to destroy each other."

While still in Germany, Leopold drafted a series of articles on the

Dauerwald and *Naturschutz* movements for publication on his return to the states. But his handwritten, undated paper on "Wilderness"—probably also written in Germany, perhaps as a speech—remains the most evocative and intimate account of his impressions. Germany, more than any other country, was actually practicing conservation while America was still preaching it. Yet something was lacking—a certain quality of landscape that should have been found even on productive forests and farms, the "mixing of a degree of wildness with utility." Leopold was haunted by this realization of Germany's esthetic deficit, the more so because it stemmed from an excess of conservation rather than a lack of it, and he was determined to help America avoid the same fate.

That he titled the piece "Wilderness" while acknowledging that he had not expected to find wilderness areas in the American sense reflects the broadening scope of his thinking. Earlier that same year he had joined with Robert Marshall and others to found the Wilderness Society, in order to give impetus to a preservation effort he had spearheaded almost alone back in the 1920s. But his concern now was no longer with recreational values so much as with the role wilderness might play in the search for biotic stability.

Just before leaving for Europe, he had articulated a rationale for the new conservation group, published in the first issue of its magazine, *The Living Wilderness*. It was "philosophically a disclaimer of the biotic arrogance of *homo americanus*, . . . one of the focal points of a new attitude—an intelligent humility toward man's place in nature." No wonder he recoiled at the regimentation of German rivers, the near-extirpation of predators, and the unnatural simplification of the forest. Leopold's German essay was thus an esthetic yearning for an accommodation with the earth that he hoped wilderness might one day allow us to discover.

In retrospect, it is clear that Leopold's confrontation with the consequences of Germany's overemphasis on production of timber and game marked a turning point in his thinking. Though attracted all his life to songbirds and wildflowers as well as to harvestable game and trees, Leo-

pold had assumed that noneconomic species would automatically thrive if environmental conditions existed that were requisite to produce a sustained yield of harvestable species. But within months of his return from Europe, he was telling students that the objective was to use the tools of management to maintain or restore diverse, healthy systems.

There were other events in Leopold's life and in the world of ecological thought in the mid-1930s that helped to effect the transformation in his thinking. Not least was the humility engendered by his personal efforts to restore the worn-out riverbottom farm in the sand country of Wisconsin that he had acquired just months before leaving for Europe. Crucial to his understanding of the nature of a truly



Leopold captioned this shot, taken in 1935, "Pulper drawn by tractor fueled by new German wood-gas engine."

healthy system was a hunting trip the following year to the wilds of the Sierra Madre in northern Mexico, where he finally realized that all his life he had seen only sick land.

During the same years, ecologists began to appreciate anew the role of evolutionary processes in diversifying the biota and creating the conditions for healthy resilience, a key insight that would soon undergird Leopold's land-ethic philosophy. But for a person like Leopold, who thought so deeply about what he observed in the field, it would be difficult to overestimate the impact of his German experience. Though a few scientific pieces had yet to fall into place, it is clear that in his unassuming, handwritten essay on Germany's esthetic deficit he grasped intuitively the essence of his mature land ethic.

Wilderness

By ALDO LEOPOLD

To an American conservationist, one of the most insistent impressions received from travel in Germany is the lack of wildness in the German landscape.

Forests are there—interminable miles of them, spires of spruce on the skyline, glowering thickets in ravines, and many a quick glimpse "where the yellow pines are marching straight and stalwart up the hillside where they gather on the crest." Game is there—the skulking roebuck or even a scurrying *Rudel* of red-deer is to be seen any evening, even from a train window. Streams and lakes are there, cleaner of cans and old tires than our own, and no worse beset with hotels and "bide-a-wee" cottages. But yet, to the critical eye, there is something lacking that should not be lacking in a country which actually practices, in such abundant measure, all of the things we in America preach in the name of "conservation." What is it?

Let me admit to begin with the obvious difference in population density, and hence in population pressure, on the economic mechanisms of land use. I knew of that difference before coming over, and think I have made allowance for it. Let it further be clear that I did not hope to find in Germany anything resembling the great "wilderness areas" which we dream and talk about, and sometimes briefly set aside, in our National Forests and Parks. Such monuments to wilderness are an esthetic luxury which Germany with its timber deficit and the evident land-hunger of its teeming millions, cannot afford. I speak rather of a certain quality which should be but is not found in the ordinary landscape of producing forests and inhabited farms, a quality which still in some measure persists in some of the equivalent landscapes of America, and which we I think tacitly assume will be enhanced by rather than lost in the hoped-for practice of conservation. I speak specifically to the question of whether and under what limitations that assumption is correct.

It may be well to first inquire whether the Germans themselves, who know and love their rocks and

rills with an intensity long patent to all the world, admit any such esthetic deficit in their countryside. "Yes" and "no" are of course worthless as criteria of such a question. I offer in evidence, first, the existence of a very vigorous esthetic discontent, in the form of a "Naturschutz" (nature-protection) movement, the equivalent of which preceded the emergence of the wilderness idea in America. This impulse to save wild remnants is always, I think, the forerunner of the more important and complex task of mixing a degree of wildness with utility. I also submit that the Germans are still reading Cooper's "Leatherstocking" and Parkman's "Oregon Trail," and still flock to the wild-west movies. And when I asked a forester with a philosophical bent why people did not flock to his forest to camp out, as in America, he shrugged his shoulders and remarked that perhaps the tree-rows stood too close together for convenient tenting! All of which, of course, does not answer the question. Or does it?

And this calls to mind what is perhaps the first element in the German deficit: their former passion for unnecessary outdoor geometry. There is a lag in the affairs of men—the ideas which were seemingly buried with the cold hard minds of the early-industrial era rise up out of the earth today for us to live with. Most German forests, for example, though laid out over a hundred years ago, would do credit to any cubist. The trees are not only in rows and all of a kind, but often the various age-blocks are parallelograms, which only an early discovery of the ill-effects of wind saved from being rectangles. The age-blocks may be in ascending series—1, 2, 3—like the proverbial stepladder family. The boundary between wood and field tends to be sharp, straight, and absolute, unbroken by those charming little indecisions in the form of draw, coulee, and stump-lot, which, especially in our "shiftless" farming regions, bind wood and field into an harmonious whole. The Germans are now making a determined effort to get away from cubistic forestry—experience has revealed that in about the third successive crop of conifers in "pure" stands the microscopic flora of the soil becomes upset and the trees quit growing, but it will be another generation before the new policy emerges in landscape form.

Not so easily, though, will come any respite from what the geometrical mind has done to the German rivers. If there were only room for them, it would be a splendid idea to collect all the highway engineers in the world, and also their intellectual kith and kin the Corps of Army Engineers, and settle them for life upon the perfect curves and tangents of some "improved" German river. I am aware, of course, that there are weighty commercial reasons for the canalization of the larger rivers, but I also saw many a creek and rivulet laid out straight as a dead snake, and with masonry banks to boot. I am depressed by such indignities, and I have black misgivings over the swarm of new bureaus now out to improve the American countryside. It is, I think, an historical fact that no American bureau equipped with money, men, and machines ever refused on principle to straighten a river, save only one—the Soil Conservation Service.



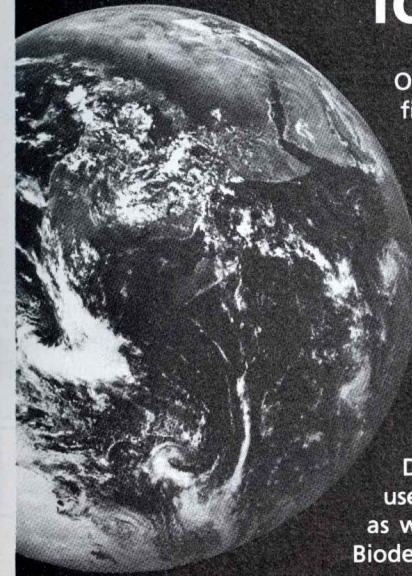
Leopold (fifth from left) with his fellow foresters in Czechoslovakia in 1935.

Another more subtle (and to the average traveller, imperceptible) element in the deficit of wildness is the near-extirpation of birds and animals of prey. I think it was Stewart Edward White who said that the existence of one grizzly conferred a flavor to a whole county. From the German hills that flavor has vanished—a victim to the misguided zeal of the game-keeper and the herdsman. Even the ordinary hawks are nearly gone—in four months travel I counted only _____. And the great owl or "Uhu"—without whose vocal austerity the winter night becomes a mere blackness—persists only in the farthest marches of East Prussia. Before our American sportsmen and game keepers and stockmen

have finished their self-appointed task of extirpating our American predators, I hope that we may begin to realize a truth already written bold and clear on the German landscape: that success in most over-artificialized land uses is bought at the expense of the public interest. The game-keeper buys an unnatural abundance of pheasants at the expense of the public's hawks and owls. The fish-culturist buys an unnatural abundance of fish at the expense of the public's herons, mergansers, and terns. The forester buys an unnatural increment of wood at the expense of the soil, and in that wood maintains an unnatural abundance of deer at the expense of all palatable shrubs and herbs. (See "The Great Kaibab Deer Die-Off," page 54—Ed.)

This effect of too many deer on the ground flora of the forest deserves special mention because it is an illusive burglary of esthetic wealth, the more dangerous because unintentional and unseen. Forest undergrowth consists of many species, some palatable to deer, others not. When too dense a deer population is built up, and there are no natural predators to trim it down, the palatable plants are grazed out, whereupon the deer must be artificially fed by the game-keeper, whereupon next year's pressure on the palatable species is still further increased, etc. ad infinitum. The end result is the extirpation of the palatable plants—that is to say an unnatural simplicity and monotony in the vegetation of the forest floor, which is still further aggravated by the too-dense shade cast by the artificially crowded trees, and by the soil-sickness already mentioned as arising from conifers. One is put in mind of Shakespeare's warning that "virtue, grown into a pleurisy, dies of its own too-much." Be that as it may, the forest landscape is deprived of a certain exuberance which arises from a rich variety of plants fighting with each other for a place in the sun. It is almost as if the geological clock had been set back to those dim ages when there were only pines and ferns. I never realized before that the melodies of nature are music only when played against the undertones of evolutionary history. In the German forest—that forest which inspired the *Erlkönig*—one now hears only a dismal fugue out of the timeless reaches of the carboniferous. AF

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