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Aldo Leopold in the Sierra Madre, northern Mexico, January 1938.
(Photo by A. Starker Leopold; X25918, courtesy of
University of Wisconsin-Madison Archives.)

Aldo Leopold's Southwest

Edited by
David E. Brown
& Neil B. Carmony

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FOREWORD

I never personally knew Aldo Leopold, but his example and thought have profoundly influenced my life and career. When I was attending wildlife management school in the late 1940s, his book *Game Management* was the "Bible" in the field. In 1967, I became the staff wildlife biologist for the Southwest Region (Arizona and New Mexico) of the United States Forest Service, where Leopold had worked some fifty years earlier. Through thirty-five years of professional life, his teachings and writing guided me, and I never knew a time when that path was wrong. Today, several years after my retirement, I still find the philosophies expressed in *A Sand County Almanac* so meaningful and moving that, after each rereading, I'm ready to "don the armor" and "slay dragons" on behalf of wildlife and wildlands. Thus, reading *Aldo Leopold's Southwest* was a very special experience for me.

David Brown and Neil Carmony have assembled a selection of Leopold's published but now obscure writings into a volume that elegantly illuminates the crucial role of his southwestern experiences in the development of his most important ecological ideas. The articles, chronologically arranged, give excellent insight into how Leopold matured from a young forester groping for answers into the most renowned ecologist of the twentieth century. Following each article, Brown and Carmony skillfully analyze the pathways of Leopold's thought at the time.

A warning is in order for those who have placed Leopold on a pedestal labeled "without sin". This collection demonstrates that

Leopold was very human and, consequently, was imperfect even in the field of ecology. But a refreshing difference is that he admitted his mistakes, learned from them, and accepted the "truth," unlike many present-day wildlife management professionals and public land administrators who react defensively to any challenge of their cherished beliefs.

Whether you are a faithful Leopold disciple, a person trying to understand how any mortal could see with such profound ecological insight, or someone trying to find a flaw in Leopold's philosophy THIS BOOK IS FOR YOU!

EDITORS' INTRODUCTION

In 1949, Oxford University Press published a small book of essays on conservation with the odd title *A Sand County Almanac*. The author was Aldo Leopold, a professor of wildlife management at the University of Wisconsin. Released a year after the author's death, the book was well received but sold only a modest number of copies. By the mid-1950s it was out of print.

In the 1960s, however, Aldo Leopold and his curiously titled book were discovered by a new generation of environmentally conscious Americans. With its call for a land ethic, it brought a new perspective and vitality to the conservation movement the world over. This book of wonderfully succinct prose became holy writ to those who love wildlife, wilderness, and natural beauty. More than a million copies of *A Sand County Almanac* have since been sold.

The year 1987 marked the centennial of Aldo Leopold's birth. Scholars, environmentalists, colleagues, and former students assembled at conferences to honor the man who had so greatly influenced conservation and the wildlife-management profession in America. The scholarly papers and reminiscences presented at these gatherings, together with Susan Flader's biographical analysis, *Thinking Like a Mountain*, and Curt Meine's definitive biography, *Aldo Leopold: His Life and Work*, now provide a substantial literature about America's most eloquent conservation writer.

The readers of this literature want more of Leopold's own writing. But even people whose lives have been enriched by *A Sand County's Almanac's* insightful and moving essays have read little else by this celebrated author. His *Game Survey of the North Central States*, published in 1931, is an obscure technical report, and his pio-

neering 1933 treatise, *Game Management*, is read only by wildlife-management professionals. These works, along with *Sand County* and a slim volume entitled *Round River*, posthumously gleaned from his journals by his son Luna, are his only books. But now, thanks to the extensive bibliography of Leopold's writings compiled by Flader and published in Meines' biography, the full spectrum of his more than three hundred published titles is revealed. Unfortunately, most of these works appeared in periodicals and are not now readily accessible to readers.

Our intention is to provide Leopold's still-growing army of admirers with a collection of these highly significant writings. Some may lack the lyrical, emotion-charged qualities found in his polished *Sand County* essays, but each is important in its own way. We trust that the reader of these selections will achieve a better understanding of not only the origins of the science of wildlife management, but also Aldo Leopold's contribution to the American conservation movement.

ALDO LEOPOLD



Springerville, Arizona Territory, c. 1909: Young Aldo Leopold poses in full cowboy regalia. (X25900, courtesy of University of Wisconsin-Madison Archives.)

*I am glad I shall never be young
without wild country to be young
in. Of what avail are forty
freedoms without a blank spot on
the map?
A Sand County Almanac*

On July 18, 1909, twenty-two-year-old Aldo Leopold arrived on a stagecoach in the ranching hamlet of Springerville, Arizona Territory. The young Iowan with a degree in forestry from Yale University had just completed ten weeks of field training at the university's forestry camp at Doucette, Texas, and a two-week orientation course in Albuquerque, New Mexico. He was now to be a forest assistant on the two-year-old Apache National Forest. Here, in this romantic setting, in the twilight of the American frontier, the young forester would begin his career in a world most other Americans had only read and dreamed about. And, as is always the case with a man newly on his own, the experiences that followed would have an influence out of all proportion to the short time of youth.

Ten years earlier there had been no Yale School of Forestry, no Forest Service, and no Apache National Forest. It was not until 1905, the year that Aldo Leopold enrolled at Yale, that Congress established the U.S. Forest Service as a professional bureau. Upon graduation, Leopold became part of this fledgling agency, which was in the vanguard of America's newly activated conservation movement. He was uniquely positioned to witness and participate in the great changes in land-use policy that would take place in the first half of the twentieth century.

Leopold was well equipped for his role as both a player in and a chronicler of a changing Southwest. He was a sensitive, contemplative man from a cultured German-American family, and both the outdoors and the arts had always been important in his life. His Yale education had been preceded by attendance at a prep school that stressed the humanities. Books, con-

certs, the theatre, and correct behavior were as much a part of his upbringing as duck hunts and nature walks. Literature was as valued as the outdoors, and in his heart the two were intertwined.

The two years that Leopold spent on the Apache National Forest (1909-1911) were a time of learning and gathering impressions in a new country. His young mind was filled with such romantic aspirations as catching poachers and establishing a game refuge within the Apache Forest's Blue Range rather than with the practical chores of building logging roads and drift fences. Much of his working time, however, was spent overcoming difficulties he experienced as a novice leader of a timber-cruising crew, whose job was to estimate the amount of saw lumber in what was then a raw wilderness. More interested in the forest as a whole than in its timber alone, Leopold already valued natural landscapes above managed land.

He maintained the disciplines of keeping a journal and writing frequent letters, polishing the skills that would serve him well in the years to come. His correspondence to his family in Iowa during this period shows an evolution from bravado and amateurish attempts at imitating the local idiom to beautifully descriptive and compelling prose that captured the feel of the country that was capturing him.

The grandeur of the Apache Forest's White Mountains and the wild and rugged country of its Blue Range had a powerful impact on Leopold, and several of his adventures in these remote wilds would leave indelible memories. Mount Baldy, Escudilla Mountain, and other Apache National Forest landmarks would be featured in his writings years later. The Apache's relatively abundant wildlife would also serve as a benchmark by which he would measure game resources throughout his career.

As in any new organization, promotions in District 3 came quickly, and after only two years of service, Leopold was assigned as a temporary staff officer to the district office in Albuquerque. Here, in this growing, largely Hispanic city on the cottonwood-lined Rio Grande, he would impress the district forester, Arthur Ringland, with his intelligence, dedication, and openness to new ideas. In the spring of 1911 he was appointed deputy supervisor of the Carson National Forest in northern New Mexico. The next year he realized his (and every forester's) dream to have a forest of his own. In March 1912, a month after New Mexico attained statehood, Leopold was made supervisor for the Carson.

At age twenty-five Aldo Leopold's goals had been realized. On October 9, 1912, he was married to Estella Bergere, a bright young schoolteacher from a pioneer New Mexico family. He was now a forest supervisor, was comfortably ensconced at "Mia Casita," his new home in the rural settlement of Tres Piedras, and was married to a woman who was the love of his life. His horse, Polly, was as much of an equine partner as the mount of any western hero in a dime novel.

Managing the Carson was a challenge. Unlike the thinly settled Apache National Forest, northern New Mexico had long been overgrazed by sheep and cattle. The Carson's largely Hispanic stockmen had used the land for generations, were set in their ways, and were naturally suspicious of the Forest Service's intentions. For the first time in his young career, Leopold was faced with solving the problems of unhealthy landovergrazed meadows, erosion gullies, and a lack of game. But he was still young enough to believe that these problems could be rectified through hard work and the application of standard remedies. To communicate the importance of these problems and their solutions to the forest rangers working under him, Leopold edited and distributed a newsletter, *The Carson Pine Cone*, thus beginning a life-long effort to instill his conservation ideas in others through the use of the written word.

Fate, however, took an unforeseen turn. In April 1913, while on a range inspection of the overgrazed Jicarilla unit of the Carson, Leopold came down with a life-threatening kidney infection. He was off work for eighteen months and forced to abandon his forest stewardship. If the district forester, Arthur Ringland, had not been a good friend and ally, Leopold might not have been able to return to work with the Forest Service at all. As it was, he was temporarily assigned to the grazing office in Albuquerquea job unsuited to both his talents and his temperament.

The period of his illness must have been a time of great pain. But it was also an opportunity to broaden his thinking. During his convalescence Leopold read and was much impressed by William T. Hornaday's crusading book, *Our Vanishing Wildlife*. Hornaday, a former big-game hunter who had become director of the New York Zoological Park, was stridently calling for the total protection of America's game animals lest they all go the way of the buffalo and the passenger pigeon. With Ringland's assistance and Chief Forester Henry Graves's proclamation that game, though not an actual forest

product, was a public responsibility, Leopold was able to devote considerable time to game-conservation efforts.

Still only in his late twenties, Leopold kept busy working on game projects and developing recreation policy while administering grazing permits. It was becoming apparent that recreation would be an increasingly important national forest "product," and in June 1915, Ringland directed Leopold to work full-time on formulating a recreation plan and a game and fish restoration program for District 3. Once out of the grazing office, Leopold's fertile mind was freed to concentrate on game-conservation problems. A meeting with his mentor, W. T. Hornaday, further fueled his desire to proselytise for the cause of game restoration. A colleague, J. Stokely Ligon of the U.S. Biological Survey, was already beating the drum throughout New Mexico for public support for a federal predator and rodent control program to benefit both ranchers and game populations.

The Forest Service had already helped organize local stockmen's associations in an effort to generate support for much-needed grazing regulations. Leopold was allowed to follow a similar course to promote public support for game protection in the national forests. After writing *Game and Fish Handbook*, which directed Forest Service personnel to do what they could to further game conservation, Leopold began to organize the sportsmen, encouraging them to support game-restoration measures on the national forests. More game would allow the Forest Service to better meet the demand for recreational hunting on forest lands, thereby creating another political constituency to help combat the service's many detractors.

It was then widely believed that game populations in the Southwest, as in the East, were unnaturally low because of overhunting. There was much truth to this analysis, particularly with respect to big game. The standard remedy, which Leopold accepted completely at the time, was to protect game animals from their enemies. Three prescriptions were in vogue: first, to get rid of the "game hogs" poachers and market hunters who took an inordinate share of the game; second, to establish a system of strategically situated game refuges where game animals could multiply unimpeded and spread to adjacent hunted areas; and third, to eradicate varmints, those predatory animals that prevented the game from recouping their numbers. He emphasized these points to forest rangers and