BONNIE SKLARSKI

Elegy, 1997
oil on canvas, 36 x 58 in

courtesy the artist

JERRY LAWRENCE

Aldo and Me

A Park Ranger Reflects on the Legacy of Aldo Leopold

Four o'clock in the afternoon. One hundred four degrees. In an hour it would be a hundred six in Modesto, California, where I was one of a group of young boys swimming at an irrigation canal drop near a tranquil county road called McHenry Avenue. It was 1948. The irrigation water in the Central Valley was as clean as when it had run in the streams of the nearby Sierra Nevada mountain range a few weeks before. The sound of water cascading over the drop brought back memories of a mountain stream. It was one of my earliest recollections, and has influenced how I have lived my life.

Meanwhile, in central Wisconsin, Aldo Leopold was dying of a heart attack while fighting a wildland fire near his home. He was sixty-one years old. His concept of a "land ethic" would also influence my life.

I'm thinking of this in 2013 as I'm attending a high school reunion breakfast. It's a Thursday morning, and we are assembled in the banquet room of one of the many restaurants along a now-busy McHenry Avenue. I maneuver into an empty chair at a long table.

On my right is Ed, a former classmate. "I got lost," I tell him. "Wasn't there an irrigation canal around here somewhere?"

"It was piped underground. They built on top of it."

"Too bad—that canal was a recreational godsend when we were kids. It was way out in the country then."

Old classmates are getting reacquainted. "What about the little towns around here? Manteca, Turlock, Patterson? What's happening to them?" I ask Ed.

"It's the same all over."

After the meeting, an old basketball teammate walks over and sits beside me. He had transferred to our school as a sophomore in 1955. He was from the South, and his drawl and humor had made him a minor celebrity among us. He was known as "G-Lee" (short for General Lee), and he and I had become good friends. He asks if I have retired.

"Twelve years ago; how about you?"

"Three years ago," he replies. "I was a judge."

"A judge? Not a likely occupation for someone with your checkered past."

"Very funny—I see you haven't changed." He smiles. "What did you do for a living?"

"Mostly worked outdoors. I was a park ranger and a naturalist for a while."

"Really! I wanted to be a forest ranger when I was a kid."

"There's a difference," I respond.

"Difference?"

"Think of it as *park* rangers *preserving wilderness* and *forest* rangers *conserving natural resources.*"

Preserving wilderness was a passion of mine. It had led me to the park service. I read about America's national parks in environmental historian Alfred Runte's *National Parks: The American Experience.* "National parks stand for the unselfish side of conservation," he said. "Take away the national park idea, and the conservation movement loses its spirit of idealism and altruism."

Runte also talked about "ordinary conservation," by which he meant "taking steps to ensure the productivity of the nation's natural resources." That, he said, was "only good common sense." It was exactly that kind of common sense that led Aldo Leopold to become an advocate for a land ethic that recognized human beings as being part of the vast ecological system of the natural world. Leopold was one of the first scientifically trained forest rangers. And while he might have come out of the "ordinary conservation" movement, he was anything but ordinary. A 1990 poll of its membership by the American Nature Study Society found Leopold's *A Sand County Almanac* and Rachel Carson's *Silent Spring* to be the most significant environmental books of the twentieth century.

What accounts for the book's importance to the environmental community? To understand the answer, we must consider how Leopold's thinking developed during his life. He received a master of forestry degree from Yale in 1909, and began his career at the age of twenty-two on national forest lands in southwestern Arizona and New Mexico. Over the years, he witnessed an increasing population of lumbermen, miners, farmers, and ranchers reduce much of the surrounding countryside to eroded wasteland. As a forest ranger, Leopold had hands-on experience with the destruction of land. It was part of his job to prevent and correct it. Unlike other early environmental pioneers such as John Muir or Gifford Pinchot, both of whom dealt with preservation and conservation issues on a national level, Leopold was forced to think about and diagnose land problems in a practical sense. As one of this country's first generation of foresters, he was forced to come to grips with what the *individual* American was doing to the land, and the experience greatly influenced his thinking. In this way, he began to develop his influential land ethic.

Land, as Leopold used the word, was an all-inclusive term including soils, waters, plants, animals, and people, collectively. This ecological perspective was uncommon in his time. Conservation was then thought to be the conserving of individual land resources, such as soil, water, or timber—not the preservation of the multifaceted natural *communities* that produced and maintained these resources.

In trying to understand the workings of the land, Leopold had become an ecologist. Ecology then was a young science seeking to understand the relationship between organisms and their environment. *Environment* was defined as both the living (plants and animals) and nonliving elements (soil, water, weather, fire, topography, sunlight) in a particular area. Based on his own experience and extraordinary powers of observation, along with the work of others, Leopold recognized that land functioned as a dynamic operating system. He understood that all elements in a particular environment are in a constant state of circulation and are interconnected. What affects one component in a natural system sooner or later affects all. The science of ecology supplied the means for understanding these connections, and demonstrated that no part of nature was independent of other parts—including people.

"Those ideas led to the development of programs such as the one at Sacramento State College, where I got my park management degree in 1966," I explained to G-Lee at our reunion. "I had gone to Sac State earlier as a history major, and while there I'd learned about the program, then one of only two in the country. The curriculum was established as part of an effort to professionalize the staff of the state park system. That was when I first heard the word *ecology.* It's hard to believe there was a time when that term was not in common use. It was a coincidence, really, that I would get into the park management field just as the old conservation and preservation movements were becoming the new environmentalism."

"Ah, the environmental movement," G-Lee frowned. "A radical product of a radical time. 1968 was probably the worst of it. Do you remember the riots that year?"

"I remember assassinations, and the death of peace, and political idealism," I responded. "But what I remember most was the impact of the pictures of Earth from Apollo 8."

In 1968, humans for the first time saw an "earthrise," a small bright blue-and-white sphere of life appearing over a barren moon surface in the vast, black emptiness of space. That image encouraged some of us to step back and look at the planet as an interconnected system. A generation earlier, Aldo Leopold seemed to have anticipated such a view when he wrote:

> It is a century now since Darwin gave us a glimpse of the origin of species. We know now what was unknown to all the preceding generations: that men are only fellow-voyagers with other species of creatures in the odyssey of evolution. This new knowledge would have given us, by this time, a sense of kinship with fellow-creatures; a wish to live and let live; a sense of wonder over the magnitude and duration of the biotic enterprise.

In his lifetime, Leopold struggled with two central issues. The first was, how did land work? What natural processes produced and maintained the stability and fertility of particular areas, and how could people use the land without disrupting these natural processes? The second issue was, how could people be made to understand those natural processes and be persuaded to act in their own best interest and use the land wisely? His thinking resulted in two concepts that are the foundation of modern-day environmentalism: land ethic and ecological conscience.

In the 1930s, when Leopold was in his forties, the Great Plains—including parts of Arkansas, Colorado, Kansas, New Mexico, and Oklahoma—went through a ten-year period of drought. Lack of rain and poor agricultural practices combined with wind erosion to produce one of the most economically devastating natural disasters in the history of the United States. The prevalent native plants on those prairies were grasses, which had evolved over thousands of years to survive the occasional dry periods and strong winds that naturally occurred in this area. Farming and grazing methods had destroyed most of those plants and weakened the soil. During the droughts of the 1930s, wheat, the predominant crop, dried up and left the soil unprotected. Resulting dust storms covered everything: fields, buildings, equipment. Farming was impossible and the dust was inescapable. It caked on the lips of residents, got into their homes, and blotted out the sun for weeks at a time. Prevailing winds carried it thousands of miles, and it darkened the skies of cities to the east, including Chicago, New York, Washington D.C., and Atlanta. Dust collected on the decks of ships three hundred miles out into the Atlantic Ocean. Estimates of the number of people displaced range from 300,000 to over 2,000,000. Fifteen percent of the population of Oklahoma moved to California. The cost of government assistance alone amounted to over one billion 1930 dollars.

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Leopold watched the localized land erosion issues of his early career become the nationwide catastrophe of the 1930s. He became convinced that the problem was the way Americans used the land. He came to the conclusion that the reasons for misuse of land were economic and cultural. Part of the problem, he believed, was the Judeo-Christian notion that the earth was made exclusively for man's use and benefit. "We abuse land," he said, "because

we regard it as a commodity belonging to us. When we see it as a community to which we belong, we may begin to use it with love and respect." Another part of the problem, he thought, was the characteristic "American pioneer mentality." This attitude was described by Teddy Roosevelt when he said, "In the past we have admitted the right of the individual to injure the future of the Republic for his own present profit. In fact, there has been a good deal of demand for unrestricted individualism, for the right of the individual to injure the future of all of us for his own temporary and immediate profit."

Leopold felt that such individualism was based on selfishness and shortsightedness, typified by a rush for short-term profits that caused long-term damage to the land, its residents, and the surrounding community. He felt that this mentality caused trees, rivers, prairies, and wild creatures to be seen only as obstacles in the way of "progress," or as raw material whose primary reason to exist was to be transformed into commodities to be consumed.

That is when Leopold began to develop his provocative land ethic, which was to be a culturally shared, cooperatively practiced notion that there was a moral right and wrong in land use that reached beyond individual economic profit. He articulated this idea in *A Sand County Almanac*, published in 1949. It was a new way of thinking and acting towards nature: ethics, which first dealt with relations between individuals and later between individuals and society, were now to be extended to nonhuman elements of the natural community. Extending ethics from human relations to nature was, Leopold said, "an evolutionary possibility and an ecological necessity." His land ethic asked us to "examine each question in terms of what is ethically and ecologically right, as well as what is economically expedient."

Leopold took his concepts of land, health, and conservation and transformed them into a *moral* duty. It was a duty he placed not only on society as a whole, but also on the individual, who, Leopold asserted, had the obligation to manage land in the interest of the community and not just for himself. He advocated that each of us develop what he called an *ecological conscience*. "A thing is right," he said, "when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

As I drove home from the reunion, I reflected on all this. I heard the sound of my whirling tires among thousands on the wet asphalt. The traffic report came on the radio: "It's a bad commute," the helicopter spotter said. "It looks like all of today's 50,000 Central Valley commuter vehicles are on 580 at the same time. That four-hour round trip is going to be a lot longer today! But what the heck, your house was cheaper! Stay away from the East Bay; there has been another shooting on northbound 880, and you're just going to sit there for forty-five minutes breathing Detroit residue."

It brought back to me how much the region had changed during the lifetimes of those of us who had gathered after so many years. My mind went back half a century to the summer of 1960. I remembered sitting at a small, blue-green Yosemite backcountry lake, reading in the sun and watching red-seed-tipped grasses along the shoreline being moved by a gentle breeze. I was alone and quiet until a small naturalist-led group of park visitors appeared, and I overheard, from a distance, how the basin for this lake was scooped out by a glacier thousands of years ago, and how thousands of years in the future it will gradually evolve into a meadow and eventually a forest. Time—oceans and oceans of time. Enough so that my grandchildren and their children's children would also read here and be warmed by the morning sun. They were to have the same natural heritage as myself and thousands of past human generations. I was at peace, not yet burdened with the knowledge that my species could turn this bit of green paradise into a hot, water-starved wasteland, an unseen process that was already under way.

Now, driving through the Central Valley, that moment seemed far away. Much of the change is due to the tremendous increase in the state's population during our lifetimes, from just under seven million in 1940 to almost thirty-eight million today. We have seen wildlands, farms, and county roads become housing tracts, shopping centers, and freeways. Much of what made the areas where we spent our youth desirable places to live has been destroyed by helter-skelter development, resulting in increased stress levels and higher crime rates. In short, we are old enough to know that the quality of life in California has been substantially reduced.

At one time, when the Central Valley was a far less crowded place, open space could be found within walking distance of what were then villages. When I was a child, when villages had become small towns, natural areas still existed, but were far enough out that they had to be driven to. Today such places are mostly gone, having been covered by homes, shopping centers, asphalt, and cement. Currently, most "open spaces" available to children in the ever-increasing urban areas of the Central Valley are the artificial landscapes of city parks and the interiors of shopping malls.

In 1917, when my grandfather arrived in Modesto from Tennessee, the city's population was about nine thousand. In 1961, when I married and left town, that number had grown to thirty-six thousand. Now, the population is more than two hundred thousand. In the lifetimes of those of us at the reunion, the world's human population has grown from just over two billion to seven billion. Currently, another one million people are added to that number every *five days*. This increase has converted the regional conservation problems of the recent past to the worldwide environmental issues of today. These include ocean deterioration and the accompanying decline of critical marine species; air pollution and the associated problem of global warming; massive destruction of forest lands; worldwide extinction of plant and animal species; looming freshwater shortages and technological and chemical side effects, including cancer; and, possibly, the recent rapid rise of childhood conditions such as autism and attention deficit disorder.

In the face of such a population explosion, Leopold's proposals for the ethical treatment of nature and an environmental conscience might seem to be rearguard actions. But his concern for nature, in the end, was an appeal for the well-being of the human race. Because of his early ecological insights, he realized that, on all levels, mankind is totally dependent on natural processes for life. This idea informs much of the environmental movement today. The campaign to save the oceans, for example, is driven by the implications for mankind (loss of fisheries, chemical alteration, carbon dioxide and greenhouse gases absorbed, and so on); it is not, as some would have us believe, an anti-people or anti-business effort. Pointing out the reality that the rapidly increasing human population is having a negative effect on our environment is not an indictment of our species. It's a recognition that things done in the past, when our numbers were smaller, can't be continued without inflicting increasingly serious damage on ourselves and the rest of life on the planet. This is not a political statement. It's a statement based on the observations of almost all objective scientists. Why would we trust any other source at such a critical time? Some day—we can hope—someone will be around to chronicle the history of these times. Will the gist of it read something like this?

> Unfortunately, it was a characteristic of the late twentieth and early twenty-first centuries for many to belittle or ignore science in order to believe what they needed to believe to support preconceived political and religious notions.

I feel fortunate that I was able to study in one of the first park management programs in the country. It enabled me to devote my life to helping to preserve natural spaces, and to educate the public about the importance of doing so. Along the way, Aldo Leopold's land ethic had a profound effect on my life. "If there were anything distinctively noble in the human species," Leopold once asked, "anything setting human beings apart from other life-forms—by what would it be known? Might it be manifest," he answered, "by a society decently respectful of its own and other life, capable of inhabiting the earth without defiling it?" Today, Leopold's question is more than one of ethics. In the sixty-plus years since he asked it, the issue has, within the lifetime of a single generation, become one of preserving a quality of life worth living—and even of preserving life itself.

Jerry Lawrence has a B.S. Degree in Park Management and worked as a park ranger and naturalist. He retired from the City of Palo Alto as The Superintendent of Open Space and Science. In that capacity he was responsible for four thousand acres of open space including two thousand acres of salt marsh on the shores of San Francisco Bay and two thousand acres in the foothills of the Santa Cruz Mountains. He retired early to write. Jerry Lawrence lives in Santa Cruz with his wife Barbara. They have two daughters.