

Remarks from a Second Generation Leopoldian

You may have heard me refer to Aldo Leopold as the “father of wildlife management” this morning when I provided the welcome for the opening of the symposium. Being a wildlife ecologist myself, with both of my graduate degrees in that field, I often say that I am a second generation Leopoldian. That’s because a number of his graduate students, the first generation Leopoldians, became my professors in graduate school and had a great influence in my development as a wildlife professional.

Most people know Aldo Leopold as the great wildlife conservationist who authored “Sand County Almanac,” a work that has taken its place alongside that of Rachel Carson’s *Silent Spring* as hallmarks of conservation literature. So it may come as a surprise to some that there is a Center for Sustainable *Agriculture* named after him. Although Leopold was not a farmer, he did work on a number of agricultural fronts. He was involved in agriculture throughout his professional life. In fact, Aldo Leopold’s premise that **a balanced society must be built on a stable system of agriculture and that this in turn must be built on an appropriate attitude toward the land that sustains us all** is a mainstay of ag ecology today.

He spent 10 years with the USDA as a Forest Service employee. As a pioneer and practitioner of game management, he worked closely with farmers, and as a university professor he taught for 15 years in one of our nation’s other top colleges of agriculture at the University of Wisconsin. And finally as a conservation philosopher, he made a special effort to define the role farming played in the greater equation of mankind’s relationship to the natural environment.

Similarly, even though Aldo Leopold’s name may be associated with a Center for Sustainable Agriculture, he was in fact, a trained forester from Yale, and a practicing wildlife biologist for most of his career. Wildlife management in the United States evolved from game management for sport hunting and fishing and eventually developed into today’s science of ecology. Among his many achievements was establishing the first university department of wildlife management at the University of Wisconsin and authoring the first textbook in that discipline, entitled *Game Management*. He played an extremely influential role in working with Congress, state fish and game agencies, and the federal Bureau of Sports Fisheries and Wildlife, which later became the Department of Interior in shaping the game laws and migratory bird laws of our country.

Many of his students became well known in the profession, some of whom I got to know either while I was a graduate student or later while working in the profession. Folks such as Al Hochbaum, who became a premier waterfowl artist but also was a waterfowl biologist with an international reputation working in the

famous Delta Marshes of Manitoba, Canada, and author of "The Canvasback and a Prairie Marsh." Fred and Fran Hamerstrom, also were students of Leopold. Fran worked for the University of Wisconsin and Fred for the Wisconsin Department of Natural Resources. They both would venture to Mexico every summer in a VW bus with the roof filled with pigeons and various traps that they would use in studying raptors in Mexico. On their way, they would stop off at the Welder Wildlife Research Center outside of Corpus Christi, Texas, and provide a few days of lectures to the students there. Lyle SOWLS was another, who wrote "Prairie Ducks" and had a long career at the University of Arizona. The two Leopold students I knew best and served as mentors to me were Drs. Alan Stokes and Robert McCabe. Stokes was Leopold's last graduate student and was just finishing his dissertation studies on pheasants, when Leopold died of heart failure, while helping a neighbor fight a grass fire near his famous shack. Stokes married Leopold's secretary, Alice Harper. Both men, McCabe and Stokes, were not only mentors to me but also became my friends as did Alan's wife, Alice, and enjoyed telling stories about what life was like with Leopold as their major professor. McCabe's son, Tom, shared an office with me during our doctoral programs and had Aldo Leopold's office chair — much to the envy of all of the wildlife graduate students. McCabe would later write a book on Leopold, which he called "The Professor."

But it is between the covers of Leopold's best known book, "A Sand County Almanac," where it is presented — the fathomed perception of what the natural world can and should mean to a civilized person. With poetic metaphor and experienced examples, he molded an awareness of the beauty around us and fostered a philosophy for living with the land and with one another.

It is in "A Sand County Almanac" that he wrote the essay known as "The Land Ethic," which probably more than anything else he wrote justifies having a university center for sustainable agriculture named after him. It is in this essay that he defined a land ethic as "reflecting the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity." He wrote, "There is as yet no ethic dealing with man's relation to land and to the animals and plants which grow upon it. ... The land relation is still strictly economic, entailing privileges but not obligations. ... Obligations have no meaning without conscience, and the problem we face is the extension of the social conscience from people to land.

Personally, of the many essays and quotes that I value, my favorite always has been his essay entitled "Thinking like a Mountain," which also can be found in Sand County Almanac. During his early years as a wildlife professional, the science of ecology was still evolving as a new discipline, and land managers, including Leopold, would shoot predators on sight. In fact he had a reputation in his early years of shooting hawks. At that time, people thought the fewer predators there were, the more game animals there would be to hunt. One of Leopold's sons, Starker Leopold, was a professor of wildlife management at Berkeley and tells the story of being with his father on a field trip. Aldo saw a hawk pin a quail in an Atriplex bush and shot the hawk. Later they saw a

roadrunner with a quail chick in its beak and he shot the roadrunner. "Predators kill our game," he told Starker. "Wolves, too — they eat our deer. Eradicate them all."

Later, Aldo had a change of philosophy or an epiphany. In his essay "Thinking like a Mountain" he writes about the time he was working for the U.S. Forest Service in the Southwest and having lunch with some fellow foresters on some high rim rock. As they watched below, a wolf with a half dozen pups emerged from some willows. She was not aware of their presence above them. In those days he writes, "we had never heard of passing up a chance to kill a wolf." He writes "In a second we were pumping lead into the pack, but with more excitement than accuracy. When our rifles were empty, the old wolf was down and a pup was dragging a leg into the bush."

He then writes one of his most famous quotes: "We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes — something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view."

"I now suspect that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer. And perhaps with better cause, for while a buck pulled down by wolves can be replaced in two or three years, a range pulled down by too many deer may fail of replacement in as many decades."

Of course, for students this is a great lesson in the role of predation for healthy ecosystems, but the reason it appeals to me is that it demonstrates that Leopold, already a graduate of the Yale School of Forestry, already a professional forester and a working biologist, was able to change his belief system, change everything he knew as truth, and became a better land manager. I suggest that this lesson is as relevant today for those of us who work in production agriculture in trying to learn how to adapt better methods that will lead to a real sustainability in our production while protecting and conserving our soil and water resources.

Leopold had the steadfast conviction that the farmer, for reasons both practical and philosophical, was the one to DO conservation. At first, in his work and in his writings, Leopold was speaking only of the conservation of game animals, but in later years he would extend this notion to include non-game wildlife, plants, soil, water, and even scenic values.

So how do Leopold's words speak to the issues of today? In the half century since he wrote about agriculture and conservation, conservation has evolved into environmentalism, while farming has moved toward agribusiness. Yet one need not read far into Leopold to appreciate the timeliness — or, perhaps more accurately, the timelessness — of his thoughts. They remain relevant as long as people live on land and so long as the human instinct for stewardship endures. Leopold wrote that the farm is more than a place to grow food, that farms also

grow farmers and families, and plants and animals, both wild and tame. We apply patchwork solutions to problems that have been a long time in the building and that can only be confronted by a view of history, ecology, and economics that is as wide-reaching as agriculture, itself.

I think that conservationists have much to offer as the nation debates these points and seeks new answers. Leopold was not one to make sentimental references to the "heartland." He did not hold a romantic image of the farmer, but realized that farmers are as diverse and independently minded as any group of individuals. But he also realized that, fundamentally, a balanced society must be built on a stable system of agriculture and that this in turn must be built on an appropriate attitude toward the land that sustains us all.

His thoughts present us with a challenge. To agricultural scientists, historians, and economists, he challenges us to explore the all-too-neglected territory where separate disciplines meet. To farmers, conservationists, and environmentalists, he challenges us to work together more than we have, to compare our aims, and to appreciate that whatever differences may exist between us pale before the common dilemma we all face as lovers of the land.

And finally, to all of us as citizens in a democracy, Leopold challenges us to consider what type of society we wish to build: one that strives to squeeze the land for all it is worth, or one that seeks today and tomorrow the elusive harmony between humankind and land that Leopold called conservation.