A Land Ethic in a Handful of Soil

An ethic is a set of moral principles relating to our conduct, primarily with other people. A few years before Aldo Leopold died, he told a group of land care professionals that, for us, ethics are not only determined by religious or moral principles, but by our actions as part of the land. He presented his land ethic almost 70 years ago. He challenged us to make our lives a statement about the land we serve.

We live in a country where big-box stores sell plant food, landscape companies deliver dirt by the truckload, farmers rent ground to grow hay, and real estate people own development property. Most land use decisions are based on economics rather than ethics, and are often implemented by a corporation, not a person. In such a world, the land ethic, as envisioned by Leopold, has yet to change this generation from conquerors of the land-community to citizens who respect it as part of their existence. Using pejorative words to describe land suggests it is a commodity to be owned and dominated to make money for the owner, not an asset for building community.

Let’s review some of Leopold’s concepts:

An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from anti-social conduct. These are two definitions of one thing...

All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to co-operate (perhaps in order that there may be a place to compete for)...

The land ethic simply changes the boundaries of the community to include soils, waters, plants and animals, or collectively: the land...

In short, a land ethic changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow members, and also respect for the community as such.

Like most people, it took me a while to figure out Leopold’s profound land ethic essay. I read it as an undergraduate, but I did not understand it until I took a soil genesis course as part of my PhD program. The professor, Curtis Godfrey, took us to a prairie site. He plunged his spade into a grassy swale and brought up a black mass. He held it in his hand and said something like this: “This is soil, what we pedologists call the excited skin of the Earth’s crust. Sustaining life on this planet begins here. This handful has many communities of living things, organic matter, water, and weathered portions of the Earth’s core. In my class, if you call it dirt,
you will fail this course.” Stuff I had always called dirt was part of thousands of interconnected communities, many that could not be seen with the naked eye.

He told us that we would study how the thousands of microorganisms in the Earth’s crust capture the sun’s energy, weather rocks, release minerals, and create environments where other plants and animals evolve and further modify the Earth’s skin to support life. That introduction to a pedology course was my “aha” moment—the time when seemingly unrelated courses I had been taking suddenly came together. My relationship to the land became clear.

Living creatures used sunlight, water, and minerals locked in rocks to create environments that every creature on Earth, including me, depend on for life itself. As I tried to visualize the hundreds of interdependent communities in just 1 acre of prairie soil, I began to understand that the real road to my idealistic goal of helping feed a hungry world was not in husbanding cattle, or even in improving deteriorated rangeland. Healthy land to feed starving people depended upon keeping mutually desirable interconnections between interdependent communities.

I had enrolled in college because I wanted to become a rancher and raise cattle. As I studied the agricultural system, it became evident that successful ranchers used livestock as a tool to harvest range vegetation. I was suddenly faced with a concept that the real hope for humankind was to keep interdependent communities functioning together to maintain soil fertility and to form new soil faster than the old eroded away. Healthy land depended on interconnections between individual living things and the communities they formed. Interrelationships thrive when they are based on fairness and mutual rewards. Leopold’s land ethic began to make sense.

The year Leopold died (1948), there were 2.52 billion people on Earth. Gandhi was assassinated; the Berlin blockade began; Burma and Ceylon gained independence; the Organization of American States formed; Israel, Republic of Korea, and Indonesia became nations; President Truman ended segregation in the armed forces; and Alfred Kinsey published his best-selling book on sexual behavior of the American male. Less than a month into 1949, Truman announced the Point Four Program to help less-developed areas worldwide. Our nation’s people, collectively, were busy implementing an American ethic. Improving interactions between people and a growing interdependence between communities raised hopes that a global land ethic was possible.

Today there are almost three times as many people on Earth (7.24 billion people) as when the land ethic was first defined. Two countries, China and India, have more people than the entire world had in 1948. Not only is the amount of land per capita only about a third of what it was when Leopold spoke, much of the most productive land has been “developed” into housing, roads, and factories. Our country, the world’s best hope for teaching a global land ethic, is no longer reaching out. About 1% of our budget goes for non-defense international aid. A little over 1% goes to science. We are neglecting our role of demonstrating ethics and hunkering down. Priority spending is on national defense, a “war on terror,” and personal safety instead of giving the world a land ethic.

A lot of water has gone under the bridge since the land ethic was described. And the water transported topsoil into the oceans where it assumed some new role. As the excited skin of the Earth’s surface changed, some species became extinct, new ones evolved. Some communities ceased to function, new ones formed. The interconnections and interdependencies within and between communities have always been nourished by real, live human beings who had the confidence to put their ethics above their wealth. But more and more, that task is taken by corporations, not persons. People have ethics; corporations do not. A corporation is a legal entity, usually formed with the goal of making a profit for its shareholders.

In his lecture, Leopold said,

*To sum up: a system of conservation based solely on economic self-interest is hopelessly lopsided. It tends to ignore, and thus eventually to eliminate, many elements in the land community that lack commercial value, but that are (as far as we know) essential to its healthy functioning. It assumes falsely, I think, that the economic parts of the biotic clock will function without the uneconomic parts.... An ethical obligation on the part of the private owner is the only visible remedy for these situations.*

We—the-people are “plain members and citizens” of the larger land-community. Only we can embrace an ethic where community health becomes more important than personal profit. And that ethic should drive us to spend more of our time, talent, and treasure on research, education, and understanding the connections and dependencies between individuals, communities, and countries. As nations posture and the amount of land per capita shrinks, we adjust and survive through ethical treatment of one another.

**Suggested Reading (Again)**

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