

# Listening to the Next Generation

BY RICHARD L. KNIGHT, CURT MEINE, GARY PAUL NABHAN, AND STAN TEMPLE



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**F**OR DECADES, ALDO LEOPOLD'S writings have been assigned readings on college campuses across the country, in classes across a wide range of disciplines. Generations of students have read Leopold to gain a solid footing in conservation science, history, and ideas. He serves, perhaps uniquely, as a common link across time. The background and legacy of the land ethic is passed along from one generation to the next—for them to analyze, criticize, and extend according to their own insights.

In the Spring 2012 college semester, the four of us tried an experiment. While preparing for the semester at our respective universities, we realized that we were teaching classes that overlapped in their attention to Leopold and to the land ethic as an

*Youth are the most highly adaptable and exquisitely sensitive portion of the human population. They are wired perfectly for the job of moving us forward.*

evolving concept. At Colorado State University, 76 undergraduates in natural resources enrolled in the Conservation Biology course. At the University of Wisconsin-Madison, 18 graduate students participated in the seminar *Aldo Leopold and the Growth of Conservation Thought*. And at the University of Arizona, a dozen

graduate students read Leopold's work in the seminar *Linking Food Systems to Ecosystems*.

All of these classes cover a wide array of topics. They demand that students integrate information from various scientific fields,

*exploring, adopting, and advancing the Land Ethic?*

After all, we reasoned, students must not only understand the world as it exists today, but the world that will engage them and their generation for decades to come. We all know the

hard facts: that our home planet is hard stressed in terms of its atmosphere, oceans, soils, waters, plants, and animals, its human communities and economies. Leopold himself framed the need compellingly: "We end, I think, at what might be called the standard paradox of the twentieth century: our tools are better than we are, and grow better faster than we do. They suffice to crack the atom, to command the tides. But they do not suffice for the oldest task in human history: to live on a piece of land without spoiling it." As our young people prepare to assume the mantle of leadership and respond to that need, what ideas would they highlight and recommend?

We were encouraged by our student's determined and imaginative thinking. As have the generations before them, they resonated with ideas in Leopold's writing and saw their vital connections to current needs and

opportunities. Interestingly, very few dwelt on the "facts" that suggest our futures will be more blight than beauty, more poverty than prosperity, more doom than hope. Most were optimistic yet intelligently realistic, and held that current and future generations could be engaged in ways that allow both people and land to thrive. Perhaps their cautious optimism is due to the fact that students in conservation fields focus on solving and remediating our environmental challenges, rather than dwelling on the data that suggest the shrinking of future horizons.

We also noted that, as befits the adaptive advantages of youth, their ideas were not repeating mainstream conservation dogma. Being more aware of the state of flux we all live in today, they saw alternative ways to address conservation challenges. In particular, they saw possibility and necessity in four key themes: education, connections, communication, and economy. The statements that



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Curt Meine (center) with students from his University of Wisconsin graduate seminar visiting Coon Valley, Wisconsin. The hilly Coon Valley farms were the site of the nation's first watershed restoration project, of which Leopold was an advisor.

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from history and literature, and from their own experience and interests. In such classes it can be a challenge to find an effective focus. Because Leopold is such a valuable touchstone in conservation studies, we thought it might be useful to give our students one core assignment. We asked them all to prepare short essays addressing the same question: *What are the most important things we can and must do to engage your generation—your peers—in*

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## Connections

*"The Lord giveth and the Lord taketh away, but He is no longer the only one to do so. When some remote ancestor of ours invented the shovel, he became a giver: he could plant a tree." Aldo Leopold, "Axe-in-Hand," 1949*

*"The so-called 'locavore' and 'food' movements have the potential to create visible and enduring connections between urban and rural America—through the land." Student, University of Wisconsin*

**T**O ADVANCE THE LAND ETHIC for this generation, we must promote and instill personal connections with the environment, fostering attitudes of caring and concern for what happens to the land. This new paradigm encourages people to observe and to do, and especially empowers the poor, the landless, and the urbanized to express their land ethic.

The land ethic is not something that can be forced upon an individual. To understand the connections between the individual and the environment, one must experience these connections. In order to experience these connections people must employ their senses of taste, sight, smell, hearing, and touching in action-oriented activities, from recreation to restoration, from growing food to observing nature.

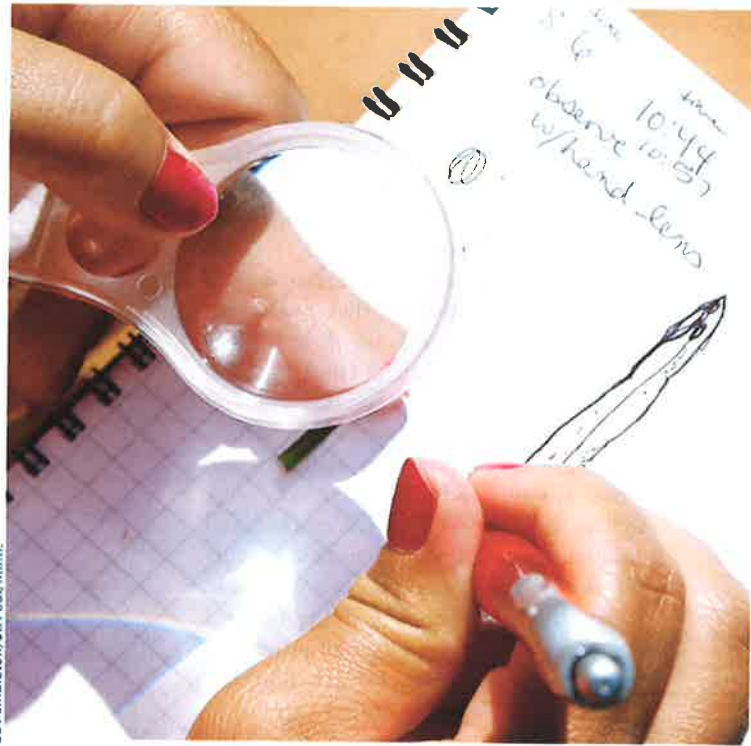
These actions, of course, appeal to those already committed to nature. The next step is to bridge the gap with those whose connections to land are weaker. This challenge is explained in such books as Bill McKibben's *The End of Nature* and Richard Louv's *Last Child in the Woods*. One way to meet this seemingly impossible challenge is to engage people directly in local issues, from monitoring storm water to revegetating abandoned places to promoting community-supported agriculture. When issues are local, tangible, and have noticeable results, people are more likely to engage and connect. This is especially important with regard to climate change, which is difficult for many people to imagine and to make a clear connection to.

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## Communication

**L**EOPOLD SOUGHT TO OPEN a cultural conversation about the need for a land ethic. As that conversation continues, it must embrace new and different audiences, such as young people, urban dwellers, business leaders, and international communities. In communicating the land ethic, we should aim to help people explore their own connections to the land and to one another; to promote understanding and respect for the complexity of ecological systems; to forge more meaningful connections between local and global issues; and to encourage people to gain appreciation of the history and realities of their own landscapes.

It is important to change the dynamics of the messages we convey about Earth and our collective future. Work that overcomes stereotypes about conservation and that shifts from a reactive to proactive mode will engage more people. Rather than saying "Not in my backyard," might we attract more interest



beysuggesting "Here's what we would like to see in our backyard"? A message that says "we are all in this together" rather than "we are all doomed" will elicit greater support.

There are many creative ways to advance the land ethic through communication: continuing efforts to introduce the film *Green Fire* to new places and audiences at home and abroad;

*"Even the thinking citizen is too apt to assume that his only power as a conservationist lies in his vote. Such an assumption is wrong. At least an equal power lies in his daily thought, speech, and action." Aldo Leopold, "The Home Builder Conserves," 1928*

*"So many of my friends would support the idea of the land ethic, but don't have the words for it or don't know how to act on it. ...I want to be land's storyteller..." Student, University of Arizona*

targeted workshops and seminars for business leaders; the presentation of "Aldo Awards" to recognize accomplishments of leaders and innovators in conservation. Through such novel and creative activities, Aldo Leopold's ideas can provide a powerful foundation for a still broader goal: building a new paradigm of environmental communication, one that involves a land ethic, empowering people through the development of their own knowledge systems in their own places.

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## Economy

**A**LTHOUGH LEOPOLD ultimately developed a conviction that citizens needed an ethical code for the land, he often wrote about the role of economics and financial inducements to initiate conservation practices. Indeed, his position at the University of Wisconsin was initially housed in the agricultural economics department.

follow distill their collective insights and ideas on these themes. We have done the compiling, but the words and thoughts are those of the students themselves.

The students in our three courses took this assignment seriously. They were clear-eyed in their assessments of where we find ourselves, but also looked into the future and thought critically about Leopold’s vision of healthy and prosperous human and natural communities and how they could coexist. Their answers indicated that they were well aware of the ecological, economic, and cultural dimensions that must come together for effective conservation. As one Wisconsin student noted, “Leopold’s ability to meld rigorous science and conservation outreach... reminds us of the importance of making our own research relevant to today’s society.”

For us, as instructors, we found the assignment to be a highly successful experiment. It provided a valuable reference point for the work of the semester—a way to direct the extensive readings and expansive discussions. We could see in our students what all instructors hope to see: their own growth, as they gained immeasurably in their capacity to address a deeply complex question.

Advancing the land ethic in the decades ahead will require the very best efforts of today’s youth. Our sense is that our students in the spring of 2012, at least, are well prepared to take on these challenges. They are poised to develop new thoughts and approaches. They are prepared to move beyond old business, and to imagine and realize new possibilities. Their answers left us, the elders, inspired, even as we sought to inspire and inform them.

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*Education*

**A**LDO LEOPOLD GUIDES US in advancing a land ethic through land education. Land education should not be coercive, and it is not prescriptive. Land education is most powerful when it fosters, not forces, a land ethic. It is most effective when it uses methods that engage diverse learning styles, when it follows the sequence of experiential education: *wonder, see, understand, enjoy act*. The key word here is *enjoy*, for when we enjoy something we are much more likely to engage and learn more about it.

Education in the future will not be as it once was. As one of our fellow students wrote, “My peers and I are more aware of how technology affects our lives than how the land affects us.” Yet, new media can reach and teach the Digital Generation. Land education can take place in online forums and salons. Word can be spread not only through traditional forums, but through new and emerging approaches such as guerilla marketing, YouTube, sidewalk chalk art, social networking sites, and online petitions. Since smart phones are now as universal as pants and shoes, why not engage



Rick Knight (top) in the field with his students, engaging them in restoration work.

them in virtual discussions of a land ethic? Let’s imagine taking young students outside with a *Where’s Aldo?* project, combining (for example) geocaching and participatory GIS with Leopold teachings and land ethic musings.

The aim of land education is to inform, nurture, and sustain a land ethic. This involves building upon existing educational programs, employing methods that have proven to be successful, and forging new paths through experimentation and a willingness to work proactively and aggressively across disciplines. To move forward in advancing the land ethic through education requires placing humans within the natural world. Leopold used the idea of a food web as a way to demonstrate our connections to our places in the natural world. Let education build on this by encouraging *reskilling*—fostering practical land-based skills such as gardening, hunting, gathering, and food preparation. In reskilling through community-based land education, we can take our place within the food web again, as intelligent eaters dwelling within healthy foodscapes.

“Education, I fear, is learning to see one thing by going blind to another.” Aldo Leopold, “Clandeboye,” 1949

“Students must leave school with a deeper understanding of the complexity of ecological communities on a variety of scales. This needs to be as critical a component of our educational system as teaching algebra and basic reading skills.” Student, Colorado State University

Land with all its natural resources obviously has fundamental economic value; indeed, many of our livelihoods are directly dependent upon the use of natural resources. When evaluating economic activities that generate financial gains, it is necessary to incorporate externalities that are borne by individuals and communities at large, that is, we need to understand the full and true costs of resource use. This approach requires caution because economic values change, often rapidly. And, as Leopold demonstrated, the marketplace is not always the best guide.

Rethinking our economy entails communicating the hidden costs of developing nature for profit and the tradeoffs of development. The present interest in developing payments for ecosystem services is promising. It is also necessary to take these messages to the business sector and to policy-makers. Maximizing economic returns is at the core of our current systems; however, this approach can be ultimately self-defeating if it discourages the long-term stewardship of nature's services.

We also need to foster an economy that is more aware of local conditions. While we expand our own recognition of global systems, we must also recognize how our own purchasing decisions affect local resources and people. As students and future workers in free-market systems, we need to examine carefully our

*"It of course goes without saying that economic feasibility limits the tether of what can or cannot be done for land... The fallacy the economic determinists have tied around our collective neck, and which we now need to cast off, is the belief that economics determines all land-use."*

Aldo Leopold, "The Land Ethic," 1949

*"Oftentimes we 'point the finger' at industry for carelessly destroying the environment, but what if we reached out with information?"*

Student, University of Wisconsin

own economic decisions. Should we fly across country to give a presentation at a professional meeting? Do we need the newest computer and media device? Can we find ways to lengthen the useful life of material goods?

Engaging our generation in exploring, adopting, and advancing the land ethic requires pursuing a deep understanding of the *oikos* (our "household"), one that recognizes that the balance, budgets, and flows of our *ecology* are similar to that of our *economy*, and that the two must not be disconnected.



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