

The Lincoln Institute of Land Policy partnered with a team of nonprofit organizations and federal agencies to host the National Workshop on Large Landscape Conservation (NWLLC) on October 23 and 24, 2014, at the Ronald Reagan Building in Washington, DC. The meeting drew some 700 participants to consider how—working across the public, private, civic (NGO), and academic sectors; across disciplines; and across parcel, town, county, state, and even international boundaries—large landscape conservation practitioners could achieve creatively conceived, strategically significant, measurably effective, transferable, and enduring results on the land in this era of climate change.

The policies, practices, and case studies discussed at the NWLLC offered a broad spectrum of solutions and promising paths for enhancing wildlife conservation efforts on a regional level; substantially improving water quality and quantity across large watersheds; achieving sustainable production of food, fiber, and energy; and protecting internationally significant cultural

and recreational resources. The conference organizers greatly appreciate the productive contributions of all participants—ranging from Interior Secretary Sally Jewell, Iroquois elder Sid Jamieson, and National Wildlife Federation President Collin O'Mara, to on-the-ground land managers, scientists, and project coordinators from Alaska's Bering Strait to the Florida Keys.

A version of this article originally appeared in Expanding Horizons: Highlights from the National Workshop on Large Landscape Conservation, the complete NWLLC report. Prepared by the Lincoln Institute and three conference partners—the National Park Service Stewardship Institute, the Quebec-Labrador Foundation/Atlantic Center for the Environment, and the Practitioners' Network for Large Landscape Conservation—the full report is available on the Practitioners' Network website (www.largelandscapenetwork.org)

—James N. Levitt
Lincoln Institute of Land Policy and the
Harvard Forest, Harvard University

by Tony Hiss

Big ideas about nature and people and a new approach to conservation cascaded through the first-ever National Workshop on Large Landscape Conservation. So much happened so quickly that the usual phrases for describing heartening and enlivening events don't fit.

A watershed event? It felt more like whitewater rafting down Niagara Falls or along an Ice-Age Flood.

A coming of age? Perhaps, if what you're thinking about is the "rocket stage" in the growth of a

Left: Nahanni National Park, in Canada's Northwest Territories, is part of the Yellowstone to Yukon Conservation Initiative—one of the world's few landscapes with the geographic variety and biological diversity to allow species threatened by climate change to adapt. Credit: © Radius Images / Corbis

longleaf pine tree: the tree can spend years looking like no more than a clump of grass, although it's been invisibly sinking a deep taproot; then, in a single season, it leaps four feet toward the sky, putting it past the reach of ground-hugging wildfires.

Variety of input? The medieval Spanish king, Alfonso the Wise, is remembered for saying that if he'd been present at the Creation, he could've offered some useful hints. But at the oversubscribed Large Landscape Workshop, 117 hours of experience, advice, and data had to be packed into seven sets of concurrent sessions that occupied most of the 17 hours of the conference. There were thoughtful talks and panels and carefully prepared reports and slideshows by 269 presenters from inner cities, remote rocky

heights, far-flung islands, and landscapes of all types across the United States, with connections to Canada and Mexico.

Continuing momentum? Ben Franklin said on the last day of the U.S. Constitutional Convention in Philadelphia in 1787 that, after spending three months listening to back-and-forth debate and looking daily at a gilded sunburst on the back of the president's chair, he finally had the happiness of knowing he was seeing a rising sun, not a setting one. But Secretary of the Interior Sally Jewell, one of two cabinet members to address the NWLLC audience and applaud its efforts, told a lunchtime plenary session on the very first day: "This room is bursting with vision. You will be pioneers of landscape-level understanding, as Teddy Roosevelt was of conservation a century ago. Let's make it happen!"

LANDSCAPE-LEVEL CONSERVATION—the term is still relatively new—is a different way of making sense of the world, and of assessing and nurturing its health. It steps beyond the laudable but limited 20th-century practice of designating reserves and cleaning up pollution. Taking a wide-angle, big-picture view of things, it sees every landscape, designated or not, as an intricately connected network of living beings

people. Landscape-level conservation has been reenergizing and broadening the environmental movement. And as its perspective is adopted, the first thing that grows is not necessarily the size of the property to be protected, but the possibility for actions, some large, some small, that will make a lasting difference for the future of the biosphere and its inhabitants, including humanity. Many of these inaugural projects were on

sustained by a wide-ranging community of

Many of these inaugural projects were on display in the workshop presentations and in the 34 posters that adorned the vast Reagan Building atrium. At times, the workshop felt like an enormous bazaar, displaying programs, concepts, research findings, explorations, cooperative agreements, and other early successes, as well as questions to ponder. Unexpected jewels, efforts hitherto known only to small groups, gleamed brightly in corners and were freely offered to all.

Yellowstone-to-Yukon, known as "Y2Y," is perhaps the granddaddy of citizen-generated large-landscape projects—an idea for a connected, binational wildland corridor 2,000 miles long, from Yellowstone National Park north to the Alaskan border along the world's last intact mountain ecosystem. At the NWLLC, Y2Y was literally coming of age, celebrating its 21st birthday. In 1993, only 12 percent of this 321-million-acre landscape had been conserved, but by 2013 the total had surged to 52 percent.

National Heritage Areas, honoring this country's history and achievements, are even more well-established: the program embraces tens of millions of acres, including the entire state of Tennessee. It has just turned 30.

Y2Y has inspired plans for "H2H"—a 50-mile corridor of land that has been identified as a "resilient landscape," just beyond the affluent northern suburbs of New York City, stretching from the Housatonic River, in Connecticut, to the Hudson River, in New York. Once protected, it could dramatically slow the effects of climate change.



Bison graze near Old Faithful in Yellowstone National Park, the only U.S. landscape where the species has roamed continuously since prehistoric times. Credit: © Idamini / Alamy



Barometers of ecosystem health, grizzly bears have demanding habitat requirements that ensure benefits for a host of other wildlife, making the species a focus of Y2Y's conservation efforts. Credit: Peter Mather / National Geographic Creative / Corbis

The Staying Connected Initiative—a coalition of Canadians and Americans working across 80 million acres of forested land in four provinces and four states anchored by northern New England (a landscape the size of Germany)—calls itself "the very young cousin to Y2Y that, 15 years from now, they'll call its northeast equivalent."

Shortly before the workshop began, an Oregon county sewerage agency began adding trees and shrubs to the meandering banks of the 80-mile-long Tualatin River west of Portland, Oregon, to keep the fish in the river cool; it will have planted a million of them by World Environment Day on June 5, 2015.

The effect, workshop participants told me during breaks (there were a few), was somehow both exhilarating and sobering. Landscapelevel conservation is hope-propelled rather than fear-accelerated. It's a banding together in the face of grave environmental threats of extinctions and degradation. By widening our horizons, the focus shifts from salvage operations to the astounding number of things that can and need to be undertaken to restore, replenish, safeguard, protect, and celebrate the long-term integrity of this gigantic continent's astonishing natural and cultural heritage.

When human ancestors first stood upright millions of years ago and could see over the tall savanna grasses of East Africa, their world went in an instant from being about 20-to-30 feet wide

to something like 20-to-30 miles wide. This redefined what was practical, necessary, and possible to think about. In a similar fashion, scaling up or accelerating our own awareness of conservation to the landscape level is a useful way of dealing with the ever-proliferating complexities of modern America, a country of 320 million people that within half a century will have 400 million.

It's a country where, the last half-century of science tells us, existing conservation methods aren't enough to protect these places properly—in part because plants and animals move across lines drawn on a map and because, as these places become more isolated, former inhabitants can't move back in again, either for full-time or part-time residence. Even high-flying Alaskan shorebirds, which winter in Mexico or China or New Zealand, are finding their roundtrips impeded by oil spills in San Francisco Bay and invasive mangroves in New Zealand; Tom Tidwell, chief of the United States Forest Service, calls birds, bats, and butterflies the "winged messengers" of landscape-scale conservation. In recent years, we've also seen that, though maps and land designations remain stationary, places may soon be on the move in their entirety, as climate change nudges one ecosystem aside and draws in another.

Perhaps mapping itself is finally entering a non-Euclidean, or post-Jeffersonian, phase. For almost 230 years—ever since 1785, when Thomas Jefferson, even before the Constitutional Convention, suggested that geometry should trump topography for surveying what were called the "vacant lands" west of the Appalachianswe've had the "Jeffersonian grid," still inescapably seen from the windows of any transcontinental flight in the way roads and fields are laid out. This grid used the otherwise invisible (and only recently computed) lines of longitude and latitude to partition the landscape into square-mile "sections" for property lines that ignored ecosystems, watersheds, and even mountain chains. It created a right-angled reality for settlers moving west to set up towns, unencumbered by what they were inheriting—the natural organization of the

landscape and the age-old ways and knowledge of its previous human inhabitants.

Banding together. If working across more of the land is something that follows the realization that there's more to the land (and beneath it and above it), the new conservation equation places as much emphasis on the who part of the work as it does on the what of it. In yet another departure from traditional practices, another thing to grow is the number and kinds of people who need to get behind any landscape-scale project. The entire process, said Dan Ashe, director of the U.S. Fish

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and Wildlife Service, relies on "epic collaboration," which became the workshop's most frequently repeated phrase. Epic resonated because it spoke of reaching across so many divides. "De-railers" was another popular workshop word:

Private landowners partnering with public-land managers. The migration path of the pronghorn antelope, which traverses both public and private land, has been protected, but it's the last of what were seven such corridors, and the others have all been expunged. Working with 953 ranchers across 11 Western states, the National Resources Conservation Service's Sage Grouse Initiative has moved or marked with white plastic tags 537 miles of barbed-wire fences, so these low-flying birds won't impale themselves. "I work with the hopefuls, not the hatefuls," one rancher said.

Private landowners partnering with their next owners. Tens of millions of acres of farms and ranches will change hands within the next 20 years, along with more than 200 million acres of "family forests." The average age of a forest landowner is 62½, and "affinity to the land," one commentator pointed out, "can be harder to pass along than a legal deed."

Public-land managers working with other

public-land managers. Too many sister agencies have longstanding habits of treating each other as disdained step-sisters, or they function like the three Gray Sisters in Greek myths, sharing a single eye. Over the last 30 years, the Bureau of Land Management has developed a Visual Resource Management (VRM) system for evaluating intrusions on lands in the West that includes listing scenic qualities at various distances from Key Observation Points (KOPs). But VRM methods have not yet made it back East, where the Federal Energy Regulatory Commission tends to approve without question all proposals for new gas pipelines and electric-transmission corridors, even if they might affect views from a National Historic Landmark such as Montpelier, the Virginia estate surrounded by old-growth forest where James Madison drafted an outline for the U.S. Constitution.

Other disparities yet to be bridged. Eightyfive percent of Americans live in urban areas, leading to a generation of kids who have "walked only on asphalt." Within the workshop, most presenters were male—engaged in "mansplaining," as one woman said. Another participant was shocked to find the conference so "overwhelmingly white." Dr. Mamie Parker, retired assistant director of the Fish and Wildlife Service (the first African-American woman in that position), was a plenary speaker who got a sustained ovation equaled only by Secretary Jewell's. "For many years," Dr. Parker said, "we've been stuck, stalled, and scared of nontraditional partnerships. Fear has kept us from reaching out to people who want to feel respected, to know that they're a valued member of the team."

"CHANGE HAPPENS AT THE RATE OF TRUST," said one workshop participant. "I don't think we've tested the trust yet," said another. It's abundantly clear that, from here on out, successful conservation is going to need a lot of successful conversations, many of which might be awkward at first. It will be a challenging stretch—standing upright brought human ancestors out of their comfort zone; a sense of belonging to other tribes is something we're still working on.

City People, a groundbreaking book by the

historian Gunther Barth, showed how 20th-century American cities became cohesive places because of late-19th-century inventions: millions of small-town Americans and Eastern European immigrants learned how to live and work together thanks to apartment houses, department stores, newspapers (which gave them the same information base), and baseball parks (which taught them the rules of competition and cooperation). Public libraries and public parks could be added to the list.

Baltimore's Masonville Cove, the country's first Urban Wildlife Refuge Partnership, launched in 2013, is perhaps a new kind of public library for the large-landscape era. A waterfront neighborhood in the southernmost part of town—torn up after World War II for a harbor tunnel thruway, and littered with abandoned industrial sites that have regenerated and then been rediscovered by 52 species of birds—the Masonville Cove Urban Wilderness Conservation Area now offers classes taught by staffers from the National Aquarium about the Chesapeake Bay and its 64,000 square-mile watershed (the size of 181/2 Yellowstones). There are also field trips, walking trails, a kayak launch, and opportunities to help clean up charred debris, which may date back to the Great Baltimore Fire of 1904.

Nationally, landscape-scale conservation has an informal and unofficial steering committee the Practitioners' Network for Large Landscape Conservation, an alliance of government land managers, land trusts, academics, citizens, and national nonprofits who save lands and protect species. And officially, as the result of an early Obama administration initiative, there's now a nationwide underpinning to the work: a network of federal fact-finders and conveners, organized as 22 Landscape Conservation Cooperatives. The LCCs don't own anything or run anything, nor do they issue regulations, but they generate and compile reliable scientific data about all of the country's landscapes (and many of the adjoining landscapes in Canada and Mexico), creating a shared information base. They necessarily cover a lot of ground and water (one LCC takes in both Hawaii and American Samoa, 4,000 miles to the west). And they bring a lot of people together;

each LCC has at least 30 partners who represent separate government agencies, nonprofits, and tribal governments.

What's next? That was the question asked over and over, with excitement and urgency, in the building's sprawling, mall-length hallways. There were those buoyed by a recent survey showing that Americans think 50 percent of the planet should be protected for other species (Brazilians say 70 percent). Some foresee a seamless continental system of interlocked large landscapes, and the establishment of an international peace park on the U.S.-Mexico border to complement the one set up in 1932 across the U.S.-Canada boundary. There were, on the other hand, those in anguish who see all efforts falling short, confining North Americans to a continent with more development, less biodiversity, and fewer wolves, salmon, and spotted owls. There were those who thought that, at the next national workshop, partnership must be made an official part of the proceedings, built into the planning of sessions, into their presentations, and into follow-up discussions and initiatives.

What is next? People may need to take some time to assimilate the ascendancy of a new insight, a permanent expansion in the perception of landscapes. No more NIMBY ("Not In My Backyard"); there's only one backyard (OBY), and it's our care and delight, our inheritance and responsibility.

When you gain a new capacity, where will you set your sights? If someone gives you a telescope, what will you look at first?

ABOUT THE AUTHOR

Tony Hiss was a *New Yorker* staff writer for more than 30 years and is now a visiting scholar at New York University. He is the author of 13 books, including *The Experience of Place* and, most recently, *In Motion: The Experience of Travel*.