

Nez Perce Creek meanders through Yellowstone National Park in Wyoming. Bob Bendick

ellowstone National Park seems so wild today because in 1872 it became the first national park on Earth and because the wildfires in 1988 and the successful reintroduction of wolves in the 1990s have restored the dynamic character of the original landscape. In his recent PBS television series, filmmaker Ken Burns called our national parks "America's best idea," but a growing number of people within the conservation movement now believe that, at best, fully protected areas like Yellowstone are only part of the conservation solution. They argue that we should be saving nature for people, not from the impacts of people, and that our efforts should encompass more different kinds of areas with less emphasis on "preserved" lands.

This is a variation on the 100-year-old debate between conservationist John Muir and forest manager Gifford Pinchot: Should we protect nature for its intrinsic value or should our approach be much more utilitarian? The latter view sought to maximize the long-term production of water, harvestable wildlife, and timber, and now would include carbon storage, biofuels, nutrient removal,

protection from natural hazards—in sum, all the things that the natural world provides.

Contemporary discussions raise another issue about the pervasiveness of human impacts on natural areas. Yellowstone and every other place on the planet are profoundly influenced by human decisions. Aldo Leopold (1966, 254) perceived this dilemma more than 60 years ago when he wrote, "man's invention of tools has enabled him to make changes of unprecedented violence, rapidity and scope." These tools are far more powerful today. In her recent book, Rambunctious Garden, science writer Emma Marris (2011) advances the argument that we will have to learn to accept a nature altered by human activities. It is not sufficient to think about preserving natural areas to allow the unimpeded function of their natural systems. Every place requires some form of management, even if only to protect what remains of its "natural" condition.

The extent to which humans have become responsible for nature was brought home to me in a recent conversation with Phil Kramer, The Nature Conservancy's Caribbean director. He described the die-back of coral reefs in that region and his team's efforts to restore them by selecting coral genotypes that seem most resilient to warmer

water, growing those corals in nurseries, and then using them to rebuild reefs at many locations.

For thousands of years, consciously and unconsciously, humans have shaped their environments to fit their needs, but this kind of intentional intervention to respond to the growing threats to nature represents a new direction that is different from Muir's preservation and Pinchot's scientific management. We are now trying to create our conservation future at increasingly large scales. This creative conservation process builds on the analytical approaches to conservation of the past, but does not depend only on baseline analysis of historic ecosystems to establish goals for the future. Rather, it requires that our goals be derived from a synthesis of human and natural needs and benefits guided by what Aldo Leopold (1966, 239) called "a land ethic"—an informed personal responsibility for the health and future of our land and water.

Challenges to Protecting Nature

This approach to conservation faces a lively debate within the conservation community. Many people hold on to the idea of restoring disturbed areas to wilderness and to the ultimate power of nature, but others recognize that these approaches can be only a part of our future. From my perspective, the energy of the conservation community is better directed not to internal debate but to meeting the real challenges we face in sustaining the core framework and functions of natural systems for their benefit to people and to nature itself. What are these challenges?

- A declining regard for and understanding of science, including the kind of conservation and wildlife management science that Americans have pioneered for more than 100 years;
- The increasingly evident impacts of climate change, regardless of the cause, on the stability of natural processes and their relationship to people's health and safety;
- A short-term horizon for making decisions about land and water management, policy, and use that conflicts with the long spans of time needed to develop and implement creative, large-scale conservation policies and projects;
- The increasingly skillful and effective use of well-funded campaigns to advance specialized economic or political objectives, regardless of the larger consequences for society today and for future generations;

- A growing reluctance to regulate the impacts of activities that affect the health of land, air, and water, although it was clear long ago, in an America with much less government, that market forces alone cannot assure the production and protection of public goods such as the human and ecological benefits of natural systems;
- The framing of the protection of our air, land, and waters as a partisan political issue, which disregards the past leadership and many contributions of both major parties to conservation in this country; and
- The growing separation of many Americans from actual experiences in the outdoors that could help to foster an appreciation and understanding of conservation issues and provide balance to anti-environmental arguments.

Strategies for Creative Conservation

At this pivotal point in America's conservation history, what does the conservation movement have to do to resolve the conflicts between today's political parties, the global human pressures on our natural systems, and the need to create an environmental future in this country and around the world that is ethical, sustainable, and achievable? The answers, I believe, come not from Washington, but rather from a nationwide movement of landowners, government agencies, nonprofit organizations, and community groups working together to protect the places they value, such as the Blackfoot Valley in Montana, the Flint Hills of Kansas, and the Connecticut and Hudson River Valleys in the East. Popular projects such as these suggest a number of strategies that can contribute to lasting and large-scale conservation success.

Work at the landscape scale.

In a world with many stresses and threats to nature, we know that disconnected pieces of natural systems are unlikely to survive. Most federal agencies are beginning to think in these terms, but many institutional barriers must be overcome to make the conservation of what The Nature Conservancy calls "whole systems" the usual way of doing business.

Use multiple conservation tools at the same time.

It is essential to integrate preservation, traditional private and public land management, and restoration in places defined by both natural and human

attributes. The combination of working at a large scale and using multiple approaches suggests that government must achieve an unprecedented level of coordination in how it uses its influence and resources.

Recognize, respect, and quantify the short- and long-term human benefits of conservation.

Conservation organizations must become expert in understanding and explaining the value of nature in shaping the future world. As multiple interests try to piece together the future, they must be able to represent accurately how important the natural components of that future will be.

Do not discard the idea of baseline conditions.

It is not always possible to sustain nature as it has existed in the past, but we can give the highest priority to protecting those places where ecological processes can continue, where change can be managed, and where we can, as The Nature Conservancy's scientist, Mark Anderson, says, "save the stage if not all the players."

Learn to balance adaptive management with long-term goals.

This requires bringing together a willingness to admit and adjust to mistakes with the consistency of purpose and action needed to influence the future of large systems. It takes time to reach the kind of long-term consensus building about the desired future condition that communities are trying to achieve. Successful, creative conservation projects extend over decades, not years.

Maintain fair and consistent environmental laws.

Environmental and land use regulatory processes and economic incentives and disincentives can and should be restructured in ways that will establish a more consistent and flexible framework for shaping the future and bring a positive environmental influence to the operation of markets. But regulatory standards must be maintained to ensure a level playing field and to protect the environment and human health while enabling long-term economic growth. The broad use of the mitigation hierarchy (avoid, minimize, compensate) can be helpful here. This approach to the siting of infrastructure and

development can enable investment and economic growth while providing net benefits for nature.

Do more to ensure the involvement of citizens and diverse stakeholders in planning for the future.

If our society is not simply protecting nature, but creating a future world, then all of us have an even greater right—and I would say a responsibility to be involved in setting those goals. We no longer live in a mainframe society. Most decisions are driven by networked individual actions, and citizens need a renewed sense of empowerment in determining the character of the places where they, live, work, and recreate. Conservation, too, will become a more decentralized, from-the-bottom-up process. The engagement of young people is particularly important, and environmental issues must be made relevant to the diverse residents of the nation's metropolitan areas where the great majority of Americans live.

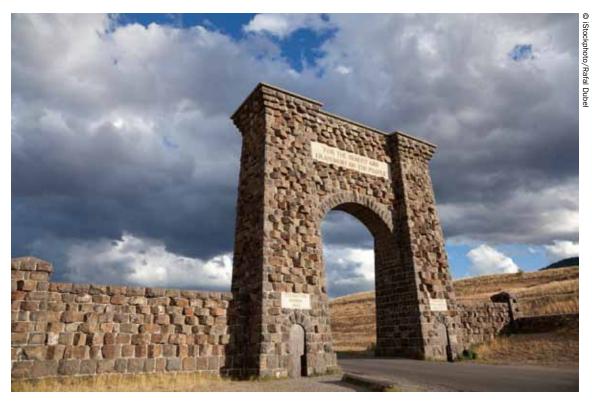
Identify, train, and mentor a new generation of local conservation leaders.

A new generation of conservationists skilled at working with diverse interests will be able to create a future that brings together environmental and long-term economic needs.

Shared Problem Solving

Of course, doing these things could put creative conservation in the crossfire between those for whom nature is irrelevant and those who are fearful that changing anything about environmental regulation or protection of public lands will open the door to cataclysmic change. But these steps can advance practical solutions to the nation's growing political impasse on conservation and the environment. At the heart of this impasse is the shared belief that we have lost control over the future of our families and communities, and that we have become victims of the actions of distant forces.

Done right, creative conservation can give all of us significant roles in shaping the future of the places most important to us—our home ranges. It also offers two benefits that can have powerful political traction—the opportunity for better places to live, work, and visit that provide tangible benefits to our lives, and the sense of respect and self-worth implicit in helping to determine the future of the places we love.



The commemorative arch at Yellowstone **National Park** welcomes visitors.

Such an approach might move the environmental politics of both conservatives and liberals toward shared problem solving. For conservatives —is it planning for the future they oppose, or just planning by those with whom they disagree? Are they willing to include the hopes of citizens for their own communities as a legitimate part of the less government and more market-driven future they would like to see? For liberals—are they willing to trust people who work on the land to make more decisions about the fate of our land and water, or are they, too, really more interested in centralized control to achieve their own vision of what should be? Can the opportunity to work together to create good futures for the real places that surround our lives be the literal and symbolic common ground that can heal some of our society's divisions?

The stone arch at the North Entrance to Yellowstone was erected to commemorate the creation of the park and is inscribed "For the Benefit and Enjoyment of the People." Theodore Roosevelt put the cornerstone of the arch in place when he visited Yellowstone in 1904, at a time when Americans increasingly saw government as a protector of the common good. Yellowstone was an example of that spirit.

But now, in the twenty-first century, it seems to me that the gateway arch also has an important message about looking outward from the park,

down Paradise Valley where the Yellowstone River heads toward the Missouri, the Mississippi, and the Gulf of Mexico. The conservation challenge before us, against all odds and whether we like it or not, is to create a future for the benefit of the people, based on a respect for and understanding of the multiple values of nature in many more places across America.

If approached place-by-place in this way, Americans with diverse points of view can rally to the cause of conservation as not just something to think about on vacation, not just a luxury, but as a durable foundation for healthy, safe, more prosperous and more spiritually rewarding lives for all of our children and grandchildren. L

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