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Which We, Whose Wisdom, Whither the Mountain West?

RICHARD B. NORGAARD

Bill Clinton shored up his environmental credentials among Democrats near the end of his first term by establishing the Grand Staircase–Escalante National Monument through a public proclamation. The local people of southern Utah were so outraged by the imposition of the new monument that Clinton staged the press conference announcing his decision in Grand Canyon National Park, across the border in Arizona. That local interests conflicted with national interests was not surprising: Federal land policy has always been fraught with controversy over competing interests.

Another important problem has arisen, however. Scientific management, the federal government's trump card, historically helped keep the controversies over "which we" within bounds by offering something for everyone, from locals dependent on resource extraction to "eastern" environmentalists interested in preservation. Now we know that the science that had been institutionalized within the federal land agencies was sometimes outright wrong—as in the case of fire suppression—and when used to determine allowable cuts, it was frequently suppressed in support of pork barrel politics (Hirt 1994). While the agencies are struggling in the face of shrinking budgets to redefine the promise of good science under the rubric of ecosystem management, local people are calling for the transfer of land to local control. The location of Clinton's press briefing symbolizes the tense politics, democratic contradictions, and struggling science underlying federal land policy today.

John Wesley Powell argued in 1878 that the Far West was fundamentally different from the East and Midwest because significantly lower rainfall made the West unsuitable for farming. Much of the precipitation in the West is concentrated as snow in the mountains. Thus with dams and canals, sufficient water can be captured and delivered for irrigation, but only for a small portion of the land. On this basis, Powell argued that individual watersheds should be the unit of democratic governance and resource allocation so local people could manage the limited water resource and put it to its best use. Although Powell went on to make key contributions to the role of science in the federal government, his proposal for the rational development of the West was overruled by the manifest destiny of land developers who argued that "rain follows the plow." A recent annotated collection of Powell's writings provides a wonderful opportunity to take a fresh look at his ideas (deBuys 2001).

During the 1890s, Gifford Pinchot, America's first professional forester, publicly lamented the rapaciousness of the American timber industry. In the Far West, the situation was especially bad because the forests were in mountainous regions unsuitable for conversion to agriculture. Conservation of forests, so that present and future generations could make use of them, along with careful watershed management, was the only rational solution. The evidence from the East and Midwest, however, gave no reason for optimism that private industry would conserve the forests of the Mountain West. Thus, both the newly formed Sierra Club and the American Association for the Advancement of Science backed Pinchot in promoting public forests and scientific management. The establishment of the public forests, largely during the 1890s, culminated with the incorporation of 16 million acres into federal reserves by an executive order signed by President Theodore Roosevelt in 1907. He then signed an appropriations bill in which, at the behest of timber lobbyists, Congress had rescinded his authority to make further withdrawals of the federal domain for federal management. A recent biography of Gifford Pinchot does an excellent job of putting his contributions in modern perspective (Miller 2001).

For most of the 20th century, roughly half of the land in the West was federally owned and managed ("roughly half" does not include Alaska, which was 98 percent federally owned until the mid-1970s; that percentage is now 45.6). The tensions between eastern environmentalists and local people in the West, and between scientific management by a bureaucracy based in Washington, DC, and local knowledge and needs, were strong at the beginning of the century; they have ebbed and flowed and reconfigured again and again. In the last two decades of the 20th century, however, the discontent and contradictions rose to a new level. The management of fire is one point around which debate is intense. The buildup of combustible material has put forest ecosystems in an untenable state. Endangered species management, the encroachment of second homes into forest land, shrinking faith in the federal government and declining agency budgets, the

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rise of local participation in resource management, the philosophical shift toward privatization and globalization, and other important trends add to the difficulties of the federal land agencies. With little credibility and growing challenges, these agencies are finding it hard to initiate a transition to an ecosystems approach to management.

This situation has produced an interesting array of books out of and about the West. Some add new fuel to the flames, some propose constructive ways to move ahead, and yet others provide historical background. I have selected three very different books—one written by a communitarian, one by a centrist progressive, and one by a libertarian—to draw out the issues and to demonstrate the range of perspectives on the challenges of governing the West and applying science to public land management in real political time.

Let's start with Daniel Kemmis's *This Sovereign Land: A New Vision for Governing the West* (2001). Kemmis writes from Missoula, Montana, and he writes extremely well. He is a political historian, director of the Center for the Rocky Mountain West at the University of Montana, and a practicing politician (having served as a Democrat in the state legislature and mayor of Missoula). Writing good history is a process of subtracting notes from the cacophony of the past until a good tune with supportive accompaniment shows through. The music of Erik Satie comes to mind: enchanting, surprising, and beautiful. Read Kemmis if only because his prose is lyrical, passionate, and deliberate.

Kemmis blends local stories of resource management, successful and otherwise, into the big historical picture by drawing on political stories from our past and reflecting on their meaning today. His central argument is that the people of the Mountain West no longer need a patriarchical federal government limiting what they can do. Westerners both deserve to manage the land and are quite capable of doing so. A subtheme is that since the federal agencies are doing such a miserable job anyway, being constantly overridden by Congress and barely able to eke out the funds to do the paperwork to initiate—let alone carry out—its mandate, public lands might just as well be given over to locals.

Kemmis makes good use of Powell's arguments for watershed democracy while arguing that Pinchot's legacy has far outlived its usefulness. As a communitarian, Kemmis has great faith that democracy does work at the right scale: namely, at local and regional scales. Good science should be locally debated and enriched, not proclaimed from Washington, DC. He recognizes that a transition to local management will never take place until local people agree to maintain the ecosystem health of the public lands in perpetuity. Kemmis quotes the best of Bernard de Voto and Wallace Stegner, two great writers who also portrayed the people and history of the Mountain West. In sum, Kemmis combines communitarian democratic theory with the authority of an intellectual who has put philosophy and personal convictions into political practice. This is a beautifully argued book.

Two caveats are in order, however. Kemmis's arguments suffer because he tones down two serious sources of noise that cannot be ignored. First, his Mountain West may fit Montana and Wyoming, but the growing populations of Boise; Denver and the eastern piedmont of the Colorado Rockies; Las Vegas and Reno; Phoenix, Tucson, and Flagstaff; and Salt Lake City and the western piedmont of the Wasatch Mountains are notably absent from all but the last chapter of the book. These urban people share the interests of the so-called eastern environmentalists. Indeed, that portrayal was always a rhetorical misnomer, for the Sierra Club was born in San Francisco and most of its members are in the West.

The book by Douglas Booth (2002) offsets this first weakness in Kemmis's argument. *Searching for Paradise: Economic Development and Environmental Change in the Mountain West* concentrates on the population boom, urban growth and sprawl, and vacation home and retirement community development and on the associated rise in demand for ski areas and other recreational uses of the Mountain West. Montana and Wyoming share in this economic boom very little, but such growth raises whole new issues about "which we" that seriously disrupt the communitarian view from Missoula. Colorado, Idaho, and Utah are growing rapidly, drawing people who are attracted to the mountains, but attracted to them for their beauty and recreational opportunities far more than for their timber, rangeland, or minerals. Booth provides a thorough analysis of why these population booms are occurring, how additional people are adding to air pollution and land transformation, and how these developments affect ecosystems and biological diversity. Booth is an economist by training, but one of an institutional bent, who thinks the details of the laws that set up and influence how actual markets operate are more important than the mathematical intricacies of abstract grand theory. Similarly, he thinks the details of biology are important, and he has gone to great lengths to synthesize the research of conservation biologists who work in the Mountain West. He is an associate professor of economics at Marquette University in Milwaukee.

Searching for Paradise is a highly analytical work built on a foundation of considerable data and statistical interpretation. Central issues are well described and analytical results appropriately explored, so there is much good text between tables and graphs. A discussion of policy rather than political and economic interests follows from these analyses. One chapter near the end of the book, on the ethics of expanding human habitation and declining biodiversity, dramatically shifts into philosophy and is penetrating and well argued. Although it addresses many policy issues, the final chapter largely focuses on how land trusts have thus far helped relieve problems. Booth writes cleanly and his environmental concern shows through, but objective descriptions and statistics preclude stories that portray the strengths and foibles and passions of real people, as well as our growing understanding of ecosystem complexity.

The second major flaw in Kemmis's argument is that the inability of the federal agencies to define good scientific land management is not simply their problem—it is our problem. A new social contract for the management of public lands will

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have to be based on trust, a shared understanding of the current condition of those lands and the possibilities for improvement. The attack on the agencies' use and abuse of science needs to be understood as a part of a larger popular and special-interest attack on science on every front, from evolution to global climate science (Ehrlich and Ehrlich 1998, Lomborg 2001, Norgaard 2002). This attack has weakened our ability to work together democratically, locally and nationally.

With a common enlightenment, agreement can be reached with respect to the facts as well as with respect to how systems work and might be changed. Though values and science cannot be completely separate, science can help the political process focus on who should gain the benefits and who should bear the costs. Science also helps assure accountability over time by making it clear when an action by one party does not fit the intentions of an agreement. When different interest groups declare different facts and possible futures, political agreement is difficult to reach. We need a publicly maintained science that allows people to independently judge what is and what could be to facilitate democratic politics, both local and national.

Kemmis, the communitarian from Missoula and director of the Center for the Rocky Mountain West, never mentions the libertarian Political Economy Research Center (PERC) across the mountains in Bozeman, nor do the books emanating from PERC mention Kemmis. PERC claims the byline "Center for Free Market Environmentalism." Both PERC and Kemmis argue in favor of moving western land management from the federal government toward the local, but communitarian and libertarian arguments are ultimately incompatible. Libertarians argue that government should set and enforce minimal rules and then let markets work, leaving individuals and corporations free to choose. Communitarians argue that market rules need to be changed as conditions change, as our knowledge changes, and as our goals change. They see entrepreneurs and corporations as part of an evolving partnership with society.

Robert Nelson, in *A Burning Issue: A Case for Abolishing the U.S. Forest Service* (2000), argues that the very idea of scientific management is outmoded and thus the Forest Service has no basis for existing. Nelson is a Princeton-trained economist who worked in the Department of the Interior for nearly two decades before becoming a professor of public affairs at the University of Maryland. In addition to his affiliation with the Political Economy Research Center, he is a senior fellow in environmental studies at the Competitive Enterprise Institute in Washington, DC. *A Burning Issue* documents how the Forest Service got into trouble by presuming that controlling fire was an obvious step to providing more from the forest for all and by attributing this management logic to science. The book then describes how, as the problems of fire suppression became increasingly apparent, the Forest Service attempted to protect its past while catering to a political clientele of firefighters. In short, this is an excellent analysis of how things went wrong.

Nelson goes on to argue, however, that the Forest Service's efforts to move toward ecosystem management (sometimes referred to as the conservation biology alternative) will not work any better than fire suppression did. Now his arguments build on another PERC book attacking federal land management science (Fitzsimmons 1999) and complement a more recent PERC collection of arguments (Leal and Meiners 2002). The complications are multiple: Reality is complex, ecologists bound their systems for purposes of their analyses, and ecologists have multiple systems models—thus ecology provides few clear answers for management. For example, conservation biologists argue that forest ecosystems need more of their "natural" properties, yet in some instances unnatural conditions are supporting some endangered species. Biologists entered this science-policy fray in the special issue of *BioScience* (June 2001) on "Scientific Objectivity, Value Systems, and Policymaking."

Robert Nelson further argues that part of the problem is that a national agency needs nationally consistent policy to justify its existence as a national agency. Ecological systems vary regionally, in some instances even quite locally. Thus problems need to be addressed locally. A national policy with a zillion local exceptions would be ridiculous, so abolish the federal land management agencies and transfer power to the states. Privatization of much of the public lands is also appropriate, but the states should decide the matter, according to Nelson.

Nelson is a powerful writer on the attack. Relatively detached, complex systems probably are best managed individually. The progressive view that public scientists can determine the facts and narrow political conflict is clearly less true, or at least more complicated, than we thought it was. But Nelson's libertarian call for well-defined rules flies in the face of the very essence of complexity underlying his attack on scientific management by the federal agencies. Environmental systems do not behave according to the laws of Newtonian mechanics, like the planets going around the sun. Without clear, nonconflictive environmental relationships—and given evolution, multiequilibria dynamics, species invasions, shifting climate, and increasing ecological understanding and invention of new technologies—once-and-for-all rules for entrepreneurs and corporations, so that they behave in the public interest, cannot be established (Norgaard 1985).

Whether exercised locally or nationally, the constant monitoring and learning and adjusting known as adaptive environmental management is the key (Holling 1978, Lee 1993). In short, acknowledging complex dynamics and local contingencies means that science cannot simplify politics as much as we historically thought. Nelson and other libertarians see all this public searching and constant change as the enemy of individual choice and the bane of investors in a competitive search for stable economic climates. Communitarians present people as being social by nature, interested in political engagement, cooperative, and ready to learn and change for a fair share of the common good. Communitarians argue in support of human characteristics compatible with interacting with the complexities of reality and adaptive environ-

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More books on the Mountain West

Had I been more creative, I would have woven three more books out of the Mountain West into the text of the review. Fortunately for me and the deserving authors who provide us these additional books, we live in the age of boxes.

Rocky Mountain Futures: An Ecological Perspective, edited by Jill Baron (2002), pulls together the work of numerous scientists in 15 broad assessments and specific case studies of human-driven change. Paul Ehrlich provides an excellent foreword to the book that is actually a retrospective on the changes he has observed over half a century. Baron provides a concise summary arguing that for all practical purposes, the Rocky Mountains are now completely human-dominated ecosystems, even the wilderness areas. A tyranny of mostly small (and a few large) development decisions have left nature thoroughly trammeled. While it is true that our understanding of ecosystems has grown and that regional ecosystem planning would help, Baron puts just as much faith in a future of small decisions that mitigate and reverse those of the past century. This is an excellent sourcebook for anyone who intends to contribute to further environmental understanding of the Rockies and a possible text for a graduate-level course in environmental science or geography.

Shaping the Sierra: Nature, Culture, and Conflict in the Changing West, by Timothy Duane (1999), is a fascinating story of the transformation of the Sierra Nevada Mountains of California. Like Booth, Duane believes that population shifts are the driving force. *Shaping the Sierra,* however, is a much larger work than Booth's study: It interweaves historical background with analyses of recent demographic and economic data; draws on Duane's experiences growing up in the area and working with the Forest Service and engaging in regional planning efforts; brings in the voices of the great diversity of local people; and pits the issues of the Sierra against the philosophical arguments coming from the recent literature on environmental history and environmental ethics. In this rich interplay of ideas, the scientific controversies of land management do not play a major role, but they are fully there and handled well. This is a *tour de force,* a classic to treasure for years to come.

Post-Cowboy Economics: Pay and Prosperity in the New American West, edited by Thomas Power and Richard Barrett, economists at the University of Montana, is an analysis of economic change. The authors argue that the Mountain West is being affected in particular ways by a larger national and global economic transformation. Declining relative earnings, loss of jobs in the extractive sector, and an increasing number of low-paying jobs in the service sector are national phenomena. The problem is that little of the Mountain West is benefitting from the rise of the information economy or the great transfer of wealth to capitalists that occurred during the 1990s and fueled the growth of the nation's metropolitan areas and financial centers. Power and Barrett argue further that political discourse and state legislators cater to the interests and myths of the old extractive economy, making the transition to the new economy more difficult. Within this dismal picture, Power and Barrett document that people stay in small rural communities because the cost of living is low while the amenities are significant. This is a first-rate analysis, written with compassion and wisdom that does much to complete the picture of political and environmental ferment in the Mountain West.

mental management. The converse is true of libertarians, and their approach is clearly at odds with good science and, consequently, good land management.

The difficulties of correcting the problems of inappropriate "scientific" management, while trying to reconfigure how science should connect to policy for the future, are vividly illustrated by federal land management in the West. The conflicts between the changing complexities of reality as we understand them today and the political and economic philosophies that have evolved only slowly since the Renaissance are blatant in the Mountain West. These same issues, however, are all around us. The attack on climate science and how it translates into policy is an obvious example. The ways in which biotechnology is forcing us to reconsider our understanding of what can be owned, and what the role of the public should be, is another critical case. When read in this broader light, the conflicts and contradictions in the Mountain West seem almost surmountable. And perhaps if we make progress on this front, we will gain the understanding and solidarity needed to tackle more difficult issues.

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