

# Wilderness, Natural Areas, and Ecological Reserves: Thoughts on the Politics of the Big Outside

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**Abstract**—This essay offers some loosely organized comments on the project of preserving wilderness on the scale of the big outside. These comments are arranged around a subject that has been the topic of quite a bit of debate over the past few years—the possibility that the *nature* in our discussions about federal land and the environment is an artifact of *social construction*. The essay seeks to suggest why the notion of social construction is important in the politics of the big outside.

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In order to establish a context for this essay, let me begin with two comments about the subtitle. First, I intend that “thoughts” be understood in two ways. On the one hand, what I offer here are several personal observations about the politics of wilderness preservation. On the other hand, I am also attempting to draw attention to the more general ways we think (and talk) about wilderness. Second, my use of “the big outside” is an explicit reference to Dave Foreman and Howie Wolke’s (1992) book of the same title. Originally published in 1989, this book is one of the earlier calls to rethink the scale of our wilderness preservation efforts. It also marks a shift in one branch of the radical environmental movement. While the spirit of Earth First! is certainly present in the book, in many ways, the ideas they present are far more radical than the old monkeywrenching days.

On a personal level, however, *The Big Outside*, and Earth First! more generally, point to the kinds of questions that have animated my research agenda for several years. Although I work in the federal land policy area, my research is ultimately directed at the broader goal of explaining why it is crucial to pay very close attention to political discourse. Whatever else might be said of politics, this much is surely true: Stripped to its essence, politics is the arena in which we discover (construct, invent, create) ideas about the kinds of societies we want and don’t want (Edleman 1988; Schattschneider 1975; Stone 1997). What intrigues me most about politics is the process by which seemingly radical ideas become mainstream.

As my first major foray into this business, I took on the subject of the Sagebrush Rebellion (Cawley, 1993). There was a tendency in the late 1970s to dismiss the Sagebrush Rebels, and the ideas they presented, as simply political rhetoric which masked their true agenda. What I tried to

show in my analysis was that whatever the original intent of the Sagebrush Rebels, the consequence of their activity was to bring about some rather fundamental shifts in our discourse about the federal estate. Indeed, the root idea raised by the Sagebrush Rebellion—that we might want to consider decentralizing federal land management—looks far less radical today than it did in the late 1970s (Brick and Cawley 1996; Nelson, 1995).

It seems to me that much the same can be said of Earth First! In the mid 1980s, Earth First!ers draped a sheet of black plastic down the face of Glen Canyon Dam (a symbolic “crack”) to raise the idea of tearing down the massive dams throughout the West. It would be a bit much, of course, to suggest that this idea has become mainstream (pun intended), but nevertheless, the recent experiment at the Grand Canyon and the discussion of “decommissioning” dams in the Northwest to preserve salmon populations suggest that the idea is less radical than it was in the 1980s. So too is the idea of saving wilderness on the scale of the big outside, as our conversations at this conference demonstrate.

What I offer in this essay are some loosely organized thoughts on the big outside. My central theme is a notion that has been the subject of quite a bit of debate over the past few years—the possibility that the *nature* in our discussions about federal land and the environment is an artifact of *social construction*. My intent is to suggest that viewed in some ways, this notion is less troublesome than it might otherwise appear.

## On Pine Cones

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Many years ago, I thought I would be a poet. In consequence, I took several classes on creative writing and was taught that good writers show their readers, they don’t tell them. Although I have since abandoned poetry, I have discovered that the lesson I learned in those writing courses is a useful bit of advice for teaching. For example, there is a game I play with the students in my environmental politics courses.

I pass around two pine cones, explaining that one came from a wilderness area and the other from campus, but not identifying which cone is which. I ask the students to look at the cones and try to identify the one from wilderness. The ensuing conversation normally elicits four basic responses. One group, usually the largest, simply shrug their shoulders and say they don’t know. Another group, usually the smallest, respond with the question of what difference does it make. Unconsciously borrowing from Gertrude Stein, they assert: “A pine cone is a pine cone is a pine cone....” The rest of the students divide into two groups. They note that one of

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the cones is slightly larger than the other, but arrive at different interpretations for this situation. One side argues that the larger cone must come from wilderness. Their logic is essentially that trees in wilderness are “healthier” than trees in civilization. The other side picks the smaller cone as the wilderness one. Their logic is that since the trees on campus are irrigated regularly, they would produce larger cones.

The point of my game is to show students, rather than simply telling them, what I believe to be a vitally important aspect of environmental politics. Our political discussions about wilderness, and many other aspects of the environment, focus more on a socially constructed *nature*, than on the physical world itself. In order to drive home this point, I ask an apparently silly question: “Do you suppose that it makes a difference to the pine cones whether they come from a wilderness area or the campus?” Reluctantly accepting my question at face value, most of the students concede that since the pine cones are probably not conscious of the difference between campus and the wilderness, it really doesn’t matter to the cones. The students also note, however, that the difference between campus and wilderness is *meaningful* to them, even if they disagree on just what that meaning is. It is this point that opens the door for a conversation about the social construction of nature.

## On Classifying Spiders \_\_\_\_\_

Having worked with the notion of a socially constructed nature for several years now (Cawley and Freemuth 1993; Chaloupka and Cawley 1993; Freemuth and Cawley 1993), I realize that it can be problematical. In some uses, it seems that the concept implies a denial of a physical basis for reality (Soulé and Lease 1995). Such is not my position. Instead, my view is that social construction forces us to confront the processes by which we create (and give *authority* to) meaning(s) for the physical world. To put it a bit more pointedly, the concept of social construction forces us to confront the extent to which we, humans, impose our meanings on the physical world. Consider the creature we call spider or arachnid.

The word spider is derived from an Old English word that meant spinning. Similarly, the word arachnid is of Latin and Greek origin and derived from the myth of Arachne, who was both a skillful weaver and boastful of her ability. The latter conduct put her at cross purposes with the gods, who turned her into a spider. Thus, when humans at the roots of European culture first set about the project of classifying the physical world, it was the spider’s web-building ability that attracted their attention.

At this moment in history, a key defining characteristic of spiders is that they have eight legs. Since spiders have always had eight legs, a logical question to ask is why this characteristic of the spider is more important to our current classification scheme than the spider’s web-building ability. The immediate answer to this question is relatively straightforward: All spiders have eight legs, but all spiders do not spin webs. The more elaborate answer involves the rules that structure our current classification schemes. One of these rules is that classification efforts should be based on *nonarbitrary* characteristics. Another rule is that classification efforts must be guided by phylogeny.

Thus, since all spiders have eight legs, but not all spiders spin webs, the number of legs is a better characteristic upon which to base classification. Phylogeny, in turn, suggests that eight-legged creatures share the same evolutionary branch, few of which can build webs. Taken together, these factors argue in favor of emphasizing the number of legs because it provides a *nonarbitrary* basis for classification. Yet, in an empirical sense, the number of legs is an *arbitrary* factor. At least my entomology friend assures me that to date none of the known activities of spiders require eight legs. As he suggested, if you removed legs from (or added legs to) an existing spider, it would undoubtedly create problems for the creature in carrying out its normal activities. But there is no reason to believe that if spiders originally had six or ten legs, their activities would be substantially different from eight-legged spiders. Stated differently, while eight legs is an *intrinsic* characteristic of spiders, it is apparently not an *essential* characteristic.

Moreover, the fact that spiders share the same evolutionary branch with other eight-legged animals seems to be more important to humans than to the creatures themselves. In a species sense, of course, spiders appear to understand their relationship with other spiders. Were this not the case, spiders would have disappeared from the physical world long ago. However, it seems improbable, at least to my entomology friend and myself, that spiders understand their relationship to, say, scorpions, which are another member of the *Arachnida* class.

Viewed in this way, it seems to me that the notion of a socially constructed nature need not be either problematical or threatening. Once again, based on our best available data, the project of constructing (discovering) an underlying order for the physical world appears to be a thoroughly human preoccupation. Moreover, there is a sense in which the characteristics we choose to emphasize in this project actually tell us more about the values and beliefs of the people undertaking it than they do of the physical world being described. More specifically, they help reveal our underlying assumptions about the relationships between the social and physical worlds. This point, in turn, opens up a connection between spiders and the big outside.

## On Wilderness and Ecosystems \_\_\_\_

Before considering the question of preserving the big outside, we need to consider the issue of classification. Generally speaking, we have two ways of describing the big outside. On the one hand, it is *wilderness*; on the other hand, it is *ecosystem*. Moreover, tracing the course of the policy dialogue over the past 30 years suggests an effort to convert wilderness into ecosystem. It seems to me that this shift in nomenclature can be interpreted as an attempt to deal with several problems associated with the concept of wilderness.

Primary among these problems is that no matter how we might try to avoid it, there is no escaping the conclusion that discussions of wilderness are often influenced by the concept of social construction. Consider, for example, Wolke’s assertion: “Merely a few centuries ago, the land we now call the United States of America was a wilderness paradise . . . So great was the pre-Columbian American wilderness that the fragmented remnants that we today call ‘wild’ pale in

comparison” (Foreman and Wolke 1992: 15). The key phrase in this passage is “pre-Colombian.” For Wolke, then, the key characteristic of wilderness is that it has escaped the colonizing influence of European culture (Knobloch 1996).

Affirming my interpretation, Wolke concedes that there was a human presence in this pre-Colombian wilderness paradise, and that these humans “set fire to forests and prairies to improve the hunting; and, in some places, grew crops” (Foreman and Wolke 1992: 18). Yet, Wolke does not classify these activities as destructive because “the wilderness was huge and diverse, and all life—including human—was subservient to the overwhelming forces of nature” (Foreman and Wolke 1992: 18).

In contrast, Roderick Nash (1982) asserts that prior to European colonization, there was no wilderness on the North American continent. As evidence in support of this assertion, Nash offers the following comment from Chief Standing Bear of the Ogalala Sioux: “We did not think of the great open plains, the beautiful rolling hills and the winding streams with tangled growth as ‘wild.’ Only to the white man was nature a ‘wilderness’” (Nash 1982: xii). Nash’s point is that wilderness was a thoroughly European concept. Indeed, the underlying project of his now classic study, *Wilderness and the American Mind*, is to trace the conversion of wilderness from an alien force needing to be conquered into a scarce resource needing to be preserved. This conversion, importantly, is not about the physical wilderness, but rather, the *idea* of wilderness.

Equally important, the language of the Wilderness Act of 1964 (PL 88-577) also suggests that wilderness is a social construction. The primary intent of the act was to set aside areas of the federal estate that would provide: (1) “contrast with those areas where man and his own works dominate the landscape;” and (2) “outstanding opportunities for solitude or a primitive and unconfined type of recreation.” While the act defines a “primeval character and influence” as an intrinsic characteristic of wilderness, it does not suggest that it is an essential characteristic. For example, the act suggests that an area which “*generally appears* to have been affected by the forces of nature” (emphasis added) could be designated as wilderness. Moreover, the provision of the act that permits mining in wilderness areas requires restoration of the disturbed areas, thereby reinforcing the point that *appearance* is the most important characteristic. Indeed, there is nothing in the act which would prohibit the designation of a second- or third-growth forest as a wilderness area.

As should be obvious, these factors make it difficult to understand wilderness as anything other than a product of anthropocentric thinking, and therefore an artifact of social construction. On the face of it, the notion of ecosystem seems to be a way to avoid these kinds of problems. But upon closer examination, this is not actually the case. Once again, it is possible to identify intrinsic characteristics of ecosystems, but there is room for debate about whether or not those characteristics are essential.

As Robert McIntosh (1985: 239) notes: “Some [ecologists] treat [an ecosystem] as *the* fundamental unit and concentrate on the patterns and processes of the ecosystem as crucial to or controlling the component parts. . . . Other ecologists regard the ecosystem as the consequence of population and the interactions among them as related to the

available resources” (emphasis his). If we adopt the first view, the intrinsic characteristics of an ecosystem are also essential characteristics. The goal of maintaining the *integrity* of an ecosystem would be based on this view. However, if we adopt the second view, it is more difficult to argue that intrinsic characteristics are essential. Consider the case of wolves in the Greater Yellowstone Ecosystem (GYE).

In a press conference after helping haul the first wolves into holding pens, Secretary of Interior Bruce Babbitt declared: “At last, the wolves are coming home, and Yellowstone will be a complete ecosystem” (Milstein, 1995). Whether or not he was aware of it, Babbitt’s view is derived from the first of the above views of ecosystems. The inference is that the eradication of wolves from Yellowstone disrupted the structure of the ecosystem, and the return of the wolves restored the structure. Following the contours of the second view, the project would be to describe the characteristics of the Yellowstone ecosystem with wolves and without wolves in an effort to document the changes in the ecosystem, not to make a judgment about which condition represented a *complete ecosystem*.

The GYE also reveals another situation associated with the concept of ecosystem. The general boundaries of the GYE were originally drawn as an estimate of the habitat needed by grizzly bears. More recently, the U.S. Fish and Wildlife Service, using watersheds as a point of reference, designated a portion of the GYE as part of the Upper Columbia River Basin Ecosystem. While overlapping ecosystem boundaries may not be problematical in and of themselves, it does point to the fact that ecosystems are socially constructed. As with my spider example, the definition of ecosystem boundaries tends to depend upon what characteristics—grizzly bears or watersheds—we want to emphasize.

## On the Politics of the Big Outside

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In arguing that wilderness and ecosystem are social constructions, I am not criticizing science. Rather, my point is that science is not well equipped to answer the kinds of questions raised by our efforts to preserve the big outside. Science might be helpful in identifying areas for consideration, and it is certainly needed for developing appropriate management regimes once an area is set aside. But the question of whether or not an area *should* be set aside simply falls beyond the scope of scientific inquiry.

Moreover, recognizing wilderness and ecosystem as social constructions suggests that our conversations about preserving the big outside are not actually about the physical world. Instead, the subject of our conversations focuses on the relative advantages and disadvantages of our social condition. These points are supported, I think, by the Wilderness Act.

Determining whether an area “generally appears to have been primarily affected by the forces of nature” and affords “opportunities for solitude” does not require scientific analysis. Determining the extent to which the character of an area *is the result of* human activity or natural processes can be addressed by science, but *appearance* is not a scientific call. Similarly, while there is certainly room for the scientific study of solitude, the link between solitude and

wilderness is primarily an implicit criticism of aspects of life in an industrial society. Indeed, it is an echo of John Muir's (1981/1901: 1) famous assertion that wilderness afforded a place for people suffering from the "vice of over-industry" could "get rid of rust and disease." In short, the crucial consideration in a wilderness designation process is a value question. Is the potential wilderness value of an area greater or less than the other potential values of the area? Although we might decide to use some (quasi)scientific method to answer this question—cost/benefit analysis, etc.—the answer is ultimately a matter of social value, not science. And what I mean by "social value" here is something more fundamental than the aggregation of individual preferences.

For the sake of the argument, let us suppose that there is an area which both fits the definition of wilderness and contains a large deposit of chromium. We could, of course, run an analysis of the relative benefits and costs associated with wilderness designation and chromium development. What we need to remember, however, is that the character of the social condition is the most important variable in this analysis. In a society that relies on high tech military weapons, chromium is a very valuable resource. In a society lacking high tech armaments, chromium is far less valuable. Thus, the same analysis on the same area would produce very different B/C ratios in these two social conditions. While this is a hypothetical example, it is nevertheless a situation anticipated by the Wilderness Act. Recognizing that a technological society would have changing mineral requirements, Section 4(d)(2) of the act directs that wilderness areas "shall be surveyed on a *planned, recurring basis* . . . by the Geological Survey and the Bureau of Mines to determine the mineral values, if any, that may be present" (emphasis added).

As noted above, there has been a tendency over the past few years to replace wilderness with ecosystem in our public dialogue about the big outside. This shift reflects, at least in part, an effort to provide a more scientific foundation for our conversations. Moreover, such a move makes sense in at least two other ways. First, it gives us a way to think about wilderness in more *tangible* terms. Stated differently, despite our disagreements about what characteristics to use in classifying ecosystems, there is agreement that the project is about *characteristics* rather than *appearances*. Second, ecosystem provides a vehicle better suited to talk about preservation on the scale of the big outside. Yet, in a curious way, our public dialogue suggests that ecosystem is a less useful approach than wilderness.

Amid all that has been written about the politics of wilderness, there is one point that I think has been underemphasized. In a policy sense, there are two areas of potential conflict over wilderness: the decision to designate an area, and the subsequent management of wilderness areas. Generally speaking, the designation process precipitates a far more intense controversy than the management process. There are some exceptions, of course. For instance, then-Interior Secretary James Watt's announced intent to begin processing mineral lease applications for wilderness areas produced a rather intense argument about the management of wilderness during the 1980s (Cawley 1988). And more recently, intriguing arguments have developed over rock climbing in wilderness as

well as the exclusion of mountain bikes from wilderness. But overall, managing wilderness is a far less contentious matter than designating wilderness.

My interpretation of this phenomenon is that regardless of its other problems, wilderness is a socially meaningful concept. As such, it is an example of successful social construction. I want to be very clear about my point here. In arguing that wilderness is a socially meaningful concept, I do not mean to imply that everyone supports wilderness. The contention over designation reminds us that such is not the case. Instead, I am arguing that there seems to be a kind of underlying agreement about what wilderness means. Whether as proponent or opponent, we understand that wilderness allows us to frame a debate about the intellectual and physical boundaries of industrial society.

At least to date, our public dialogue about ecosystem has produced far more confusion. In a policy/political context, ecosystem defined in community terms makes a great deal of sense. It presupposes that the whole of the various components (characteristics) are greater than their sum. As such, it gives us a subject that can be discussed in familiar policy terms. Ecosystems can be *destroyed* or *preserved*, and perhaps more important, they can be *managed*. Yet, as my ecology students remind me semester after semester, to discuss ecosystem in these terms is either outdated or simply inaccurate.

An ecosystem, they assure me, has intrinsic characteristics; but lacking a unifying principle, it is difficult, if not impossible, to argue that the components are essential. Elimination of components from (or addition of components to) an ecosystem will certainly change it. However, to equate *change* with either *destruction* or *improvement* is a claim that cannot be supported empirically. Once again, the elimination of wolves from the Yellowstone changed the GYE, but it did not destroy it. Indeed, even the spectacular fires of 1988 are portrayed as agents of change, not destruction. The problem here, as I see it, is that if ecosystems cannot be destroyed or preserved, it is not at all clear how they can be managed. Although a fairly self-evident point, it is nevertheless important to remember that *management* (and *planning* as well) represents a vehicle for accomplishing goals. It is not a goal unto itself. If ecosystems lack a central unifying principle, then what is the goal of management?

## On Social Condition

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In his essay, "The Land Ethic," Aldo Leopold (1966/1949) addressed some of the issues I have sketched out. Although he did not use phrases like social construction and social condition, they are clearly implicit in his argument. At base, his land ethic is a thoroughly human construct—it is not the physical world, but the way we think about it that animated Leopold's essay. And not unlike my spider example, Leopold's call was for us to emphasize the ecological characteristics of the big outside, rather than the commercial characteristics. Adopting a land ethic, moreover, did not mean abandoning the commercial characteristics. As he noted: "A land ethic of course cannot prevent the alteration, management, and use of these 'resources,' but it does affirm their right to continued existence, and, at least in spots, their continued existence in a natural state" (Leopold 1966/1949: 240).

There is also a sense, it seems to me, in which Leopold may have been uncomfortable with the concept of the big outside. His community metaphor was, in many respects, purposely intended to undermine the kind of thinking that presupposes there is a boundary between the inside and the outside. Stated differently, in his view, the principles of ecology applied as much to farming (inside) as to wilderness (outside). A society organized around Leopold's land ethic, then, would have far less need for the Eurocentric conception of wilderness.

At the time of its publication, "The Land Ethic" offered what were clearly radical ideas. Equally important, aside from some oblique references to "education," Leopold offered very little advice as to how we might go about the task of developing a land ethic. Indeed, read one way, Leopold seemed to argue that the land ethic was simply a step in a transcendental social evolutionary scheme. In a scientific (social or natural) context, such arguments are usually greeted with considerable skepticism. Yet a recent study conducted by various folks in the Pacific Northwest offers evidence that we may have entered into an era that looks very much like Leopold's land ethic. Reporting some of the results, Steel and Lovrich (1997: 9) note:

A majority of citizens in the national cross-section survey disagreed with the statement that "plants and animals exist primarily for human use." In addition, a majority of respondents (47.5%) disagreed with the anthropocentric statement "humankind was created to rule over the rest of nature." Most striking is the strong support registered for the biocentric statements that "humans have an ethical obligation to protect plant and animal species" and "wildlife, plants and humans have equal rights to live and develop on the earth."

There is reason, as Steel and Lovrich warn, to be cautious about these results. But as an observer of our public discourse about federal land policy and environmental politics for roughly 20 years now, I find it both curious and intriguing that questions such as these would elicit statistically significant responses in a national public attitude study.

Equally important, several of the Clinton administration's initiatives suggest that there may be a change in the character of arguments over preservation efforts. Among these initiatives are the creation of Grand Staircase-Escalante National Monument, the buy out of the New World mine outside of Yellowstone National Park and a similar deal being negotiated to save the redwood forest in California, as well as the moratorium on mineral development in the Rocky Mountain Front. And more recently there is Clinton's call to preserve the remaining roadless areas in the national forests. To be sure, these actions have not gone unchallenged, but what is important is the character of this opposition. Put most simply, these actions have not provoked a new Sagebrush Rebellion.

It could be, therefore, that the effort to preserve the big outside is much farther along than is generally recognized. But at the same time, it is not at all clear that the *nature* in the minds of many people is actually the physical world. A recent advertisement in the *Denver Post* suggests as much. "Considering the neighbors you'd have in most open spaces," the ad explains, "golfers suddenly don't seem so bad." This line is followed by a picture of a mountain lion. "Sure, you'll

also find wildlife roaming our neighborhood," the ad continues, "but it's more of the nonlife threatening variety. Deer, antelope, and maybe the occasional fox."

The subtext for this advertisement is a growing number of encounters in Colorado and elsewhere between suburbanites living at the edge of the big outside and mountain lions. Stated differently, it is a bit more difficult to sustain the belief that humans and wildlife have equal rights when you discover a mountain lion prowling about the deck of your \$500,000 home. This is an exaggerated example, of course, but it does raise an important point.

If we are truly serious about preserving the big outside, we need to be aware of the fact that increasing numbers of people will be confronting the physical world. Some of these encounters, in turn, have the potential for undermining the key premises of Leopold's land ethic. As one of my students suggested this spring: "If you get yourself between a mother grizzly and her cubs, the last thing you should be thinking about is who has and does not have rights!"

The concern I want to raise in concluding my comments is this. Embedded in the language of our current dialogue is an image of a nature that seems fragile and defenseless. In a political context, this image is quite useful. It plays on sympathy and guilt, both of which are useful tools for galvanizing public support, especially among urban dwellers who have limited contact and experience with the big outside. However, as we seek to erase the boundaries between the inside and the outside, what we may discover is that the public wants a socially constructed nature, not the physical world. They may want a neighborhood with "deer, antelope, and maybe an occasional fox," but no mountain lions and grizzly bears.

## References

- Brick, Philip D.; Cawley, R. McGregor. 1996. A wolf in the garden: the land rights movement and the new environmental debate. Lanham, MD: Rowman and Littlefield. 323 p.
- Cawley, R. McGregor. 1993. Federal land, western anger: the sagebrush rebellion and environmental politics. Lawrence, KS: University Press of Kansas. 195 p.
- Cawley, R. McGregor. 1988. Biodiversity: lessons from the U.S. Wilderness Act. *Society and Natural Resources*. 1: 205-214.
- Cawley, R. McGregor; Freemuth, John. 1993. Tree farms, mother earth and other dilemmas: the politics of ecosystem management in Greater Yellowstone. *Society and Natural Resources*. 6: 41 - 53.
- Chaloupka, William; Cawley, R. McGregor. 1993. The great wild hope: nature, environmentalism, and the open secret. In: Bennett, Jane; Chaloupka, William, eds. *In the nature of things: language, politics, and the environment*. Minneapolis, MN: University of Minnesota Press: 3 - 23.
- Edelman, Murray. 1988. *Constructing the political spectacle*. Chicago, IL: University of Chicago Press. 137 p.
- Foreman, Dave; Wolke Howie. 1992. *The big outside: a descriptive inventory of the big wilderness areas of the United States*. New York, NY: Harmony Books. 499 p.
- Freemuth, John; Cawley, R. McGregor. 1993. Ecosystem management: the relationship among science, land managers, and the public. *The George Wright Forum*. 10 (2): 29 -32.
- Knobloch, Frieda. 1996. *The culture of wilderness: agriculture as colonization in the American West*. Chapel Hill, NC: University of North Carolina Press. 204 p.
- Leopold, Aldo. 1966/1949. *A sand county almanac with essays on conservation from Round River*. New York, NY: Sierra Club/Ballantine. 295 p.
- McIntosh, Robert P. 1985. *The background of ecology: concept and theory*. Cambridge, MA: Cambridge University Press. 383 p.

- Milstein, Michael. 1995. The wolves are back, big time. *High Country News*. 6 February: 2.
- Muir, John. 1981/1901. *Our national parks*. Madison, WI: University of Wisconsin Press. 370 p.
- Nash, Roderick. 1982. *Wilderness and the American mind*. New Haven, CN: Yale University Press. 421 p.
- Nelson, Robert H. 1995. *Public lands and private rights: the failure of scientific management*. Lanham, MD: Rowman and Littlefield. 373 p.
- Schattschneider, E. E. 1975. *The semisovereign people: a realist's view of democracy in America*. Hinsdale, IL: Dryden Press. 143 p.
- Soulé, Michael E.; Lease, Gary. 1995. *Reinventing nature? responses to postmodern deconstruction*. Washington, D.C.: Island Press. 186 p.
- Steel, Brent S.; Lovrich, Nicholas P. 1997. An introduction to natural resource policy and the environment: changing paradigms and values. In: Steel, Brent S., ed. *Public lands management in the West: citizens, interest groups, and values*. Westport, CN: Praeger: 3 – 15.
- Stone, Deborah A. 1997. *Policy paradox: the art of political decision making*. New York: W.W. Norton & Company. 394 p.