

Introduction

Not long ago a friend came to me with a complaint. She had just come from a meeting of her professional society at which a colleague of mine had given an address. His topic had been the conservation of natural areas, a subject on which he is expert and speaks eloquently. Yet my friend, a thoughtful, well-educated woman who takes a serious interest in environmental issues and is well informed about goings-on in the scientific community, was dismayed.

“He just had nothing to say that offered any prospect for saving these places,” she told me. “After the talk we asked him questions—what can we do about this? But the response was the same. He just didn’t have anything to say that provided a basis for any kind of hope.”

This book is in a way a response to my friend’s dismay, and my answer to the question she and her colleagues were raising. It is a summary of reflections, reading, and conversations on the act of ecological restoration, carried out over twenty-two years in the course of my work at the University of Wisconsin Arboretum in Madison, where I was in charge of publications and public outreach from 1977 to 1999. When I began this work I had no idea it would ever have any relevance to questions such as those my friend raised about the future of natural landscapes. I was simply trying to make sense of the restoration effort that had been undertaken at the Arboretum during the 1930s when a handful of faculty, including the pioneering conservationist Aldo Leopold, decided to recreate a collection of historic—or “native”—ecological communities on several hundred acres of university-owned land on the outskirts of Madison.

Their effort was remarkably successful and resulted in the restoration, or partial restoration, of a half-dozen major ecological community types covering roughly 300 acres. But as a model of conservation, it had proved curiously sterile. Leopold himself had lost much of his confidence in the prospects for environmental management by the 1940s, and his skepticism set the tone for the environmental movement that took shape a generation later. In the late 1970s, when I showed up at the Arboretum, no one anywhere, with the exception of the occasional landscape architect and a handful of people involved in work such as the reclamation of land disturbed by mining, had any interest in restoration. Environmentalists almost universally ignored it, seeing it at best as a distraction from the serious work of preservation, and at worst as a threat—a false promise that could be used to undermine arguments for preservation.

Yet restoration had more to offer environmentalism than environmentalists realized. A major concern of the environmentalism that took shape in the 1960s and 1970s, for example, was the conservation of natural landscapes and ecosystems. Arguing for the protection of natural areas, environmentalists stressed their vulnerability, often insisting that they were not only “fragile” or susceptible to human or “outside” influences but were actually “irreplaceable.” Though understandable, this sort of rhetoric and the thinking it represented had devastating implications for conservation. It implied that conservation is a one-way street, essentially nothing more than a delaying action, that might slow the inevitable decline of natural landscapes toward eventual extinction but can never reverse it. It also conveyed the idea, often expressed quite explicitly by environmentalists, that the influence of human beings on natural landscapes is invariably negative and destructive: though we may take from such a landscape, we can never give anything back to it.

Such thinking and rhetoric may at times project a superficial optimism, celebrating the gains achieved by an agency such as the National Park Service or an organization like the Nature Conservancy in acquiring natural lands for preservation. But at bottom it is deeply pessimistic. And it was this pessimism, clearly evident in my colleague’s presentation, that my friend found so discouraging.

Restoration is important, I gradually realized, not because it offers a neat way of solving the problem of habitat loss in all situations, but because it offers the *possibility* of actively reversing environmental damage, at least in some situations. Introducing a positive factor into the conservation equation, restoration complicates it but also rescues environmentalists from an unrelieved negativity about the future of natural land-

scapes. In addition, since restoration is an active process—in fact, a kind of gardening—it offers something that has eluded environmentalists for the better part of a century—a way to “use” classic landscapes such as prairies and forests, actually participating in their ecology, without changing their character or using them up. Granted, the Arboretum planners had achieved this result on a modest, one might even say symbolic, scale. Even so, the fact that restoration was possible at all opened up the prospect of a positive relationship with natural landscapes that environmentalists had overlooked.

Equally important, I eventually realized, were the limitations of restoration, and the troubling questions it raised about natural landscapes, our relationship with them, and our proper role in them. These included questions about our right to assume authority over other species, the feasibility of restoration on an environmentally significant scale, and the nature or authenticity of restored—or “artificial”—natural ecosystems. Such difficult, in some ways painful, questions are easy to overlook in a “preserved” landscape where we maintain the pretense of a “pristine” landscape unaffected by “outside” (human) influences. But they are impossible to overlook in a restored landscape where both the defects in the restored system and the ongoing process of restoration itself constantly bring them to our attention.

Reflecting on these questions, I wound up exploring ways other cultures have found for answering them, drawing mainly on the record of anthropology and religious experience. This eventually led to some ideas that carried me beyond the mere optimism suggested by the possibility of restoration to the basis for hope my friend was looking for—and not finding—in environmental thinking.

By the early 1980s I had come to believe that the work that had been going on at the Arboretum for the previous half century had a crucial contribution to make to environmentalism. Basically, it combined the best elements of two forms of environmentalism—the conservationist’s willingness to participate in the ecology of a natural landscape, and the environmentalist’s insistence on the inherent value of that landscape, independent of its value to humans—into a single act that linked engagement with total respect. This act, it seemed to me, provided the basis for a new kind of environmentalism—actually a new environmental paradigm—that might remedy the shortcomings of these earlier paradigms, neither of which—who would dispute the point?—has proved adequate to the task of ensuring the survival of the world’s natural landscapes or of providing the basis for a healthy relationship with them.

Certainly the practice of restoration raises questions that challenge various assumptions of the environmentalism of the past generation—that was why the conservationists who invented it had overlooked most of its value, and why the environmentalists of a later generation had ignored and resisted it. At the same time restoration itself is not a new idea, and in recent years it has gained wide acceptance as a conservation strategy. As this has happened, practitioners have begun to learn how to make the most of this work, both as a way of repairing damaged ecosystems and as a way of raising questions about them and forming relationships with them. During the past decade in particular, restoration has matured rapidly, not only as a technology, as a discipline, and as a conservation strategy, but also as a form of play and a context for negotiating the relationship between our own species and the rest of nature. All this provides a basis for a measure of optimism, and ultimately of hope for the future of the natural landscape.

Discussions about the environment and environmental problems often rely on ethical formulations and invoke virtues such as restraint, humility, respect, foresight, simplicity, thrift, and so forth in our dealings with other species and with the rest of nature generally. Doubtless this is good advice, but it is not what I am concerned with here. What I propose is not so much an ethic as a way *to* an ethic, a process by which we might create the values on which any system of ethics is based while giving those values a hold on the consciences of individuals or groups of people—a way, as anthropologist Victor Turner said, of making the obligatory desirable. This process begins, I suggest, in an impulse of regard for nature or the “other”—reflecting perhaps the innate tendency to affiliate with life that biologist E. O. Wilson has called “biophilia”—expressed in a gesture of respect, or perhaps in a feeling of shame or guilt that seeks some means of expression or resolution. Both respect and shame, I believe, happen more or less spontaneously when we reach out and engage nature reflexively and self-consciously through any kind of deliberate action. Such acts, made more reflexive through the psychological and spiritual technologies of performance and ritual, then become contexts for the creation of values such as community, beauty, and meaning, which in turn provide the foundation on which a system of ethics may be built. The point is that without this first, emotionally demanding process of value creation, talk of ethics will always be just that—talk, and talk that has little hold on either the imagination or the conscience because it takes values for granted and fails to provide ways of coming to terms with the most problematic

aspects of the experience underlying the process of value creation. I also propose that when we don't do this work for ourselves in a deliberate and self-conscious way, we do it unself-consciously or carelessly, or we leave it for others to do. In either case we become the victims rather than the beneficiaries of these powerful technologies. In any event, my concern here is not with ethical principles, but with what might be called the technology of value creation, on which the formulation of ethical systems and the formation of conscience both depend. If there is any prescription here at all, it has to do with the idea that these technologies have, like any technology, certain basic elements of form, structure, and grammar that must be respected if they are to be effective. This is a prescription, but it is a content-free prescription, at least so far as end results are concerned. I offer it in the expectation that if it were followed the resulting values and ethical systems would reflect the peculiarities of region and group but would also converge toward basic, more or less universal values that I believe emerge from reflexive interaction with others.

I am aware that many readers will find this emphasis on performance and ritual puzzling, since we have learned to regard performance as of marginal or secondary importance, and ritual, which I understand to be a form of performance, as prescriptive—an intrinsically conservative social and psychological technology that serves mainly to perpetuate and impose conventional or officially sanctioned values. My thinking, however, is based on a very different idea of the nature of performance, which I have taken from the work of anthropologists Victor and Edith Turner, their son, literary critic Frederick Turner, and other scholars in anthropology, psychology, criticism, and comparative religion. In this understanding, ritual, though formulaic, is not essentially or purely prescriptive and, though it may have an important conservative function, is fundamentally creative. At the deepest level, ritual offers the only means we have of transcending, criticizing, or revising a morality or ethical formulation prescribed by authority or handed down by tradition. Most fundamentally, it is the means by which humans generate, recreate, and renew transcendent values such as community, meaning, beauty, love, and the sacred, on which both ethics and morality depend. In the absence of both a well grounded ritual sensibility and a repertory of rituals adequate to the various tasks at hand, the lower values of economics or power or top-down appeals to ethics and other prescriptive systems erode and override these higher values in the ongoing struggle to define what is valuable and how people should behave. Both failings, I believe, are characteristic of environmentalism and of modern Western societies

generally. We in the United States are seeing this now, for example, in medicine, where, in the absence of means to create and renew the higher values associated with the work of healing, what was once a priestly or shamanistic vocation is in the process of being reduced to a mere technology and even to a merely commercial enterprise. The problem is that, as our grasp of the means of creating and renewing value weakens, we wind up living on the spiritual capital of the past. And so we find environmentalists constantly appealing to the higher values, and to ethical systems based on them, but offering no way to create these values or even gain access to them.

Finally, a comment on the environmental crisis and its role in this book. Discussions about the environment commonly focus on an environmental crisis of one kind or another, whether an external crisis of supply, as it were, or the internal one of attitude, value, and relationship. These discussions commonly reflect the assumption that this situation is unique—a peculiarity of modern or industrial or agricultural or, perhaps, patriarchal cultures.

My perspective on this is quite different. To begin with, though I am certainly prepared to take seriously the predictions of experts regarding matters such as overpopulation, acid rain, global warming, habitat destruction, or species extinctions, I am not willing to build my case on them. For one thing, the projections are always open to debate, if not over whether then at least over when catastrophe will occur, and there is always a danger of overstatement on both sides. More important, I am not willing to accept the idea that the prospect of a crisis is our best, most effective motive for action. I believe that positive goals are more effective in the long run, and I also believe that the challenge we face is ultimately a positive one—not of losing a species of plant that offers a cure for cancer, or of someday seeing water cover New York City, but the more important matter of learning to live graciously on this planet. This is not a novel problem, unique to modern or technically advanced cultures, but rather a problem that has challenged all people at all times. Solving it is one of the perennial tasks of culture, and I have become convinced over the years that the act of ecological restoration has a crucial role to play in carrying it out. Drawing attention to that role is my primary purpose in writing this book.

In writing about the act of restoration, I have drawn from the work of scholars in a number of disciplines. I suspect that many readers who are familiar with the environmental thinking and writing of the past few

decades will be surprised at the sources of the ideas I bring together here. Many of them are either old books, or books that lie at or beyond the margins of environmental thinking. Others are not books at all, but conversations I have had with restorationists and scholars in various fields.

There are two reasons for this rather unsystematic procedure. First, much of the pioneering work on restoration has been done by practitioners outside the academy in the context of what amounts to an oral culture. Even now, with two journals devoted entirely to restoration, much of the best thinking in this area is not well represented in the formal literature, and with a few notable exceptions much of what has been written deals only with the technical aspects of the work and has proved to be of little use in helping me think through its value in a critical and constructive way.

Second, the environmental thinkers of the past generation, though reflecting a variety of perspectives, have had little to say about restoration and have uniformly failed to come to grips with the more problematic aspects of restoration specifically, or of our relationship with the rest of nature generally. This being the case, in my attempt to make sense of what has always seemed to me an interesting and beautiful, yet certainly problematic way of interacting with the landscape, I have had to proceed pretty much on my own. Basically, I have observed the process of restoration at the Arboretum and elsewhere, occasionally participating in it myself in a modest way, and I have kept this experience and the questions it raises in mind in the course of my reading and conversations.

In this way, I came across many ideas and connections that have proved useful. An important insight (at least for me) was the realization that since our relationships with other creatures have spiritual, psychological, and political as well as purely ecological dimensions, many of the ideas and institutions that make up and maintain the human community—liberalism, for example, or gift-exchange or sacrifice or initiation—are also relevant to the task of achieving community with the rest of nature. Other insights came about more or less by chance, as small, sometimes unintended, gifts from others. For example, a casual remark by a participant at a conference in 1988 first drew my attention to the notion that restoration had an interesting relation to ideas about rebirth and redemption. And my son, after taking a course in anthropology, introduced me to the practice of world-renewal rituals in traditional societies by performing a maintenance ceremony for a typewriter, complete with bell and returns, one evening in our living room. Still others suggested readings. Friends and colleagues introduced me to Leo Marx's writings

on pastoral literature; to Mircea Eliade's books on world renewal, initiation, and other ritual traditions; to Marcel Mauss's work *The Gift*; and to R. W. B. Lewis's book on nineteenth-century American literature, which forms the basis for chapter 3. Other connections and ideas came in the course of my own reading, often in books I came across more or less by chance. I first encountered the writing of Fred Turner in *Harper's Magazine*. That led to a fruitful association with him, and eventually to an exploration of his parents' work, both of which inform many of the ideas I discuss here.

In short, this was less a scholarly enterprise than a purposeful browsing around looking for material that might prove useful in the task of making sense of the act of restoration. The result is a rather unusual juxtaposition of ideas and a new perspective on restoration and on environmentalism generally. Proceeding in this way, I am aware that I must have passed by many interesting and useful leads; and many of the ideas I explore will benefit from further development. I only hope that readers will keep in mind the kind of work this is—an attempt to make sense of a form of environmental management that gradually developed into an outline, certainly more ambitious than I intended at the outset, of a new way of thinking about and interacting with natural landscapes.

Insofar as the book is a critique of environmentalism from the perspective provided by the act of ecological restoration, it is a friendly critique, intended to strengthen environmentalism, not to question its importance or its objectives regarding conservation of the classic landscapes that are my primary concern. Though I consider myself an environmentalist and have devoted my career to work on behalf of the environment, for many years I have felt that our various environmentalisms, diverse as they are, share serious weaknesses, perhaps most evident in their inability to provide the basis for a satisfactory relationship between culture and nature as it is represented by classic landscapes. In my view, what might now be called the restoration movement offers a way to correct this weakness.

I am indebted to scholars and colleagues in an unusually wide range of disciplines for help in putting together and developing the ideas outlined in this book. Since the conversation has gone on for so long, I cannot acknowledge everyone who has contributed to it. Those to whom I owe a special debt of gratitude include John Aber, Kat Anderson, Peter Bowler, Sue Bratton, John Cairns, J. Baird Callicott, Andy Clewell, Ed Collins, Steve Davis, Dave Egan, Ron Engel, Peter Fabian, Cheryl Foster, Vir-

ginia Gibson, Mike Gilpin, Paul Gobster, Ron Grimes, Matthias Grosz, Gene Hargrove, George James, Anne Jordan, Barbara Jordan, William Jordan IV, Jay Knight, John Leonard, Andrew Light, Dave Mahler, Suzanne Malec, Dave McCloskey, Curt Meine, Mike Miller, Bill Morgan, Chris Norden, Judy Nystrom, Steve Packard, Roy Rappaport, Walter Rosen, Tom Simpson, Alex Turner, Fred Turner, Keith Wendt, and Neil Whitehead. I am also indebted to the National Science Foundation's program in Science, Technology, and Society (Award Number 9496144) for support for a year of study at the University of North Texas from 1993 to 1994, where I engaged in many helpful conversations and where I wrote the first draft of this book. I would also like to express my appreciation to Baird Callicott, Gene Hargrove, Dave McCloskey, Fred Turner, and Max Oelschlaeger for their helpful comments on early drafts of this book.