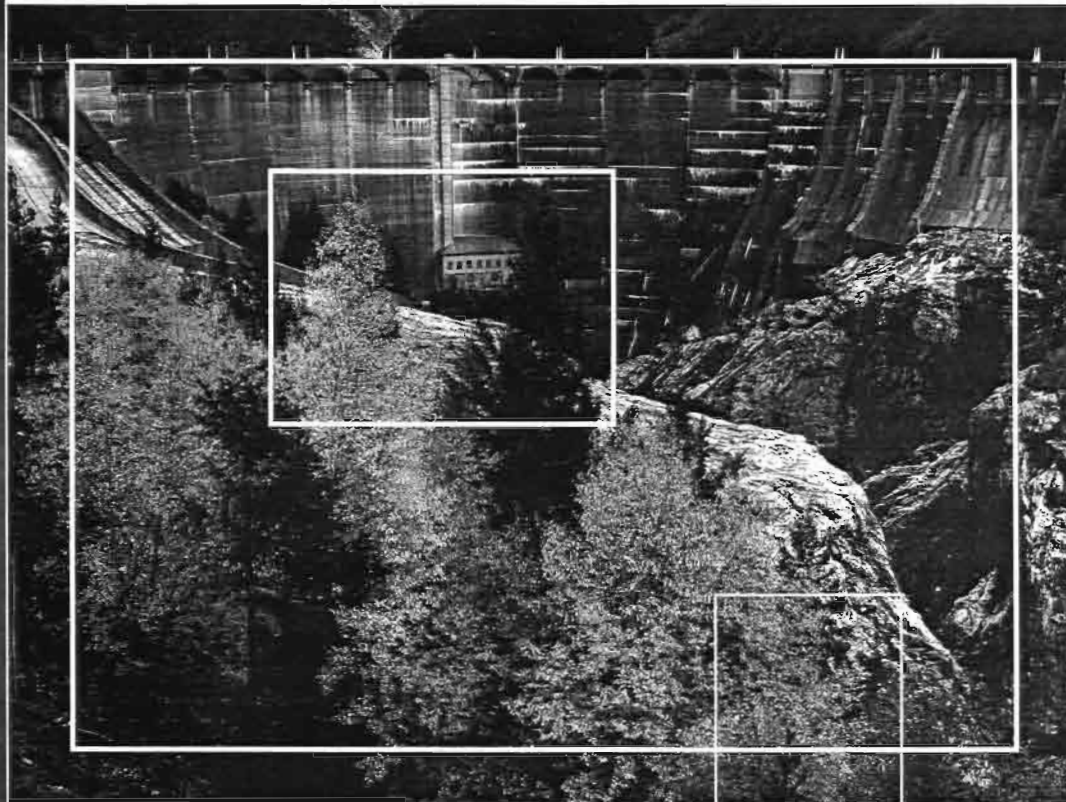


UNCOMMON



G R O U N D

Rethinking the Human Place

in Nature

edited by

WILLIAM CRONON

1991

ideas are as good as any other's, how can we defend some uses (and non-uses) of nature over others? How can we protect the environment if everything is up for grabs? The answer, of course, is that not everything is up for grabs, and not all ideas or uses of nature are equally defensible. There are very real material constraints on our ideas and actions, and if we fail to take these into account, we are doomed to frustration if not outright failure. The material nature we inhabit and the ideal nature we carry in our heads exist always in complex relationship with each other, and we will misunderstand both ourselves and the world if we fail to explore that relationship in all its rich and contradictory complexity. The essays in this book try to suggest some of the things we can learn if we reflect as much on nature as an idea as we do on nature as material reality. They suggest that environmentalism is as much a cultural prospect as a "natural" one.

There is perhaps one final reason why this book has provoked some readers into regarding it as an anti-environmental tract. We live in a time when political discussion favors extreme positions and sound bites. In the struggle to attract attention and support for one's own views, the temptation is very great to caricature those of one's adversaries. The result is a rhetorical landscape of polarities, in which stark oppositions arise and cartoons become our most common way of conducting what passes for reasoned debate. In such a world, you're either for the environment or against it, and any inquiry that points toward more challenging or difficult ways of framing the discussion can seem threatening. The crucial task of self-criticism is all too easily avoided because it can seem to lend aid and comfort to the enemy.

Such aversion to criticism is understandable, but ultimately disastrous. There is no question that our purpose in writing *Uncommon Ground* was to ask hard questions that would encourage environmentalists and others to rethink some of their own most basic assumptions about nature and its meanings. Confronting such questions is never easy, and we do not claim to have answered them adequately in the pages of this book. We nonetheless regard this kind of self-criticism as crucial to the future of environmentalism, and to the human project of living on the earth in a responsible way. The struggle to live rightly in the world is finally not just about right actions, but about the ideas that lie behind those actions. At a time when threats to the environment have never been greater, it may be tempting to believe that people need to be mounting the barricades rather than asking abstract questions about the human place in nature. Yet without confronting such questions, it will be hard to know which barricades to mount, and harder still to persuade large numbers of people to mount them with us. To protect the nature that is all around us, we must think long and hard about the nature we carry inside our heads.

William Cronon

Madison, Wisconsin
June 1996

BEGINNINGS

Introduction: In Search of Nature

William Cronon

IT WAS HARD NOT TO BE PREOCCUPIED BY THE FIRES. NIGHT HAD ALREADY fallen by the time the jet started its approach into Orange County. As the lights of Los Angeles began to glow on the far horizon, I found myself gazing toward them with unaccustomed watchfulness and anxiety, searching for places that might be brighter, less orderly, more *flickering* than the rest. For several days we had been reading about the wildfires that were ravaging the hillsides of southern California, and we had even considered canceling our gathering when it looked for a time as if the campus of the University of California at Irvine might lie in their path. The news of the past twenty-four hours had been good, however, so I and more than a dozen colleagues were now flying into the city with reasonable assurance that we would not get swept up in the holocaust. I nonetheless scanned the hillsides, and will never forget the lone mountaintop that still blazed on the city's margins. From afar it looked like nothing so much as a volcano, the flames massed into a single enormous blaze, which made it seem that an entire forest was burning at once. Seen from the comfortable seat of a Boeing 727, it looked otherworldly, as if a wayward band of giants had made camp for the night and were still heaping fuel on their fire. The orange light filled the valley below as our plane continued its descent, and I craned my neck backward for as long as I could to watch the flames leaping toward heaven. It is not often that one looks down from the sky to see a city or a mountain burning in the night.

I did not know it at the time, but we had come to California to ponder the

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meaning of those flames. It was October 1993, and the ostensible purpose of our meeting was the prosaic one of planning an academic seminar. Two years earlier I had been approached by Mark Rose, then director of the University of California's Humanities Research Institute in Irvine, about organizing a residential seminar that would explore contemporary environmental problems from a broadly humanistic interdisciplinary perspective. The offer he dangled before me proved irresistible: I could focus the seminar on any questions that seemed worthy of our attention, and I could collect whichever scholars seemed best suited to grapple with those questions. The institute would raise the funds to cover our expenses, and we would live together on the campus of the University of California at Irvine for the spring semester of 1994 to conduct our research. We would have only two primary responsibilities: we were to hold daylong weekly meetings at which we would struggle to advance our understanding of the questions we posed, and we were to produce a book at the end of our time together that would share with the rest of the world what we learned from each other. It was an extraordinary opportunity, one that would almost surely never come our way again, which is why I and virtually every scholar I approached leapt at the chance to participate.¹

Most of us had never met each other as we gathered in the smoke-filled air and the furnace-like heat of the Santa Ana winds for that first October meeting. True to our interdisciplinary mandate, we were an eclectic bunch, representing academic fields ranging from history to geography, from ecology to literary criticism, from landscape architecture to environmental studies, from critical theory to law. We had come together under the rubric "Reinventing Nature," and the task we had set ourselves was nothing less than to rethink the meaning of nature in the modern world. Lest this seem too grandiose, we took as our point of departure two key insights that have emerged from the work of scholars and scientists over the past quarter century. Let me discuss them in turn.

First, recent scholarship has clearly demonstrated that the natural world is far more dynamic, far more changeable, and far more entangled with human history than popular beliefs about "the balance of nature" have typically acknowledged. Many popular ideas about the environment are premised on the conviction that nature is a stable, holistic, homeostatic community capable of preserving its natural balance more or less indefinitely if only humans can avoid "disturbing" it. This is in fact a deeply problematic assumption. The first generation of American ecologists, led at the start of the twentieth century by the Nebraska scientist Frederic Clements, believed that every ecosystem tended to develop toward a natural climax community much as an infant matures into an adult. This climax, according to Clements and his followers, was capable of perpetuating itself forever unless something interfered with its natural balance.

Popular ideas of the natural world still reflect a fairly naive version of this belief, even though professional ecologists began to abandon Clementsian

ideas almost half a century ago. By the 1950s, as Michael Barbour explains in his essay for this volume, scientists were realizing that natural systems are not nearly so balanced or predictable as the Clementsian climax would have us believe and that Clements's habit of talking about ecosystems as if they were organisms—holistic, organically integrated, with a life cycle much like that of a living animal or plant—was far more metaphorical than real.² Furthermore, the work of environmental historians has demonstrated that human beings have been manipulating ecosystems for as long as we have records of their passage. All of this calls into question the familiar modern habit of appealing to nonhuman nature as the objective measure against which human uses of nature should be judged. Recognizing the dynamism of the natural world, in short, challenges one of the most important foundations of popular environmental thought. Part of our job in Irvine was to consider the ways in which such thinking might have to change to accommodate this first, key insight.

The second of our two starting insights was perhaps even more challenging to popular conceptions of nature, and it soon emerged as the central dilemma to which our research group kept returning. The work of literary scholars, anthropologists, cultural historians, and critical theorists over the past several decades has yielded abundant evidence that "nature" is not nearly so natural as it seems. Instead, it is a profoundly human construction. This is not to say that the nonhuman world is somehow unreal or a mere figment of our imaginations—far from it. But the way we describe and understand that world is so entangled with our own values and assumptions that the two can never be fully separated. What we mean when we use the word "nature" says as much about ourselves as about the things we label with that word.³ As the British literary critic Raymond Williams once famously remarked, "The idea of nature contains, though often unnoticed, an extraordinary amount of human history."⁴

What happens to environmental politics, environmental ethics, and environmentalism in general once we acknowledge the deeply troubling truth that we can never know at first hand the world "out there"—the "nature" we seek to understand and protect—but instead must always encounter that world through the lens of our own ideas and imaginings? By "environmentalism" in this book we generally mean the broad cultural movement in the decades since World War II that has expressed growing concern about protecting nature and the environment against harms caused by human actions. Our emphasis throughout is primarily on environmental ideas in American popular culture rather than on the more systematic thinking of those who have devoted their professional lives to understanding the environment (people whose ideas have in fact profoundly shaped our own thinking in writing this book). Popular concern about the environment often implicitly appeals to a kind of naive realism for its intellectual foundation, more or less assuming that we can pretty easily recognize nature when we see it and thereby make uncomplicated choices between natural things, which are

good, and unnatural things, which are bad. Much of the moral authority that has made environmentalism so compelling as a popular movement flows from its appeal to nature as a stable external source of nonhuman values against which human actions can be judged without much ambiguity. If it now turns out that the nature to which we appeal as the source of our own values has in fact been contaminated or even invented by those values, this would seem to have serious implications for the moral and political authority people ascribe to their own environmental concerns.

Here, then, were the chief questions our seminar sought to tackle: How should popular conceptions of nature and the environment change in the face of these insights? What would a more historically and culturally minded way of understanding nature look like, which would take seriously not just the natural world but the human cultures that lend meaning and moral imperatives to that world? Can our concern for the environment survive our realization that its authority flows as much from human values as from anything in nature that might ground those values? And if the answer to this last question is yes—as surely it must be—then how can a more self-critical understanding of what we mean by nature enhance our efforts to protect the environment in ways that are both sustainable and humane?

Our own conviction in writing this book is that however threatening such questions might seem, they cannot be evaded. We know that by asking them, our essays may be perceived by some as hostile to environmentalism, part of a general backlash against the movement. And yet nothing could be further from the truth. Indeed, it is precisely because we sympathize so strongly with the environmentalist agenda—with the task of rethinking and reconstructing human relationships with the natural world to make them more just and accountable—that we believe these questions *must* be confronted. To ignore them is to proceed on intellectual foundations that may ultimately prove unsustainable. We believe that any movement that merits the most passionate support of its followers—as environmentalism surely does—also deserves their most thoughtful and soul-searching criticism. Troubling as such criticism can sometimes seem, its goal in the end must be to deepen and enrich our understanding of the problems we struggle to solve, by helping us see the unexamined, sometimes contradictory, assumptions at the core of our own beliefs—assumptions that can distract and defeat us if we embrace or act on them unthinkingly. Our goal in writing this book is to contribute to an ongoing dialogue among all who care about the environment. The outcome of that dialogue, we hope, will be a renewed environmentalism that will enter the twenty-first century more aware of its own history and cultural assumptions, and thereby renewed in its mission of protecting the natural world by helping people live more responsibly in it.

Stated so broadly, our central questions may strike the reader as being all too abstract and academic, the kind of impressive-sounding but ultimately irrelevant ivory-tower trivialities with which professors so often distract themselves while more practical folk get on with the real work of the world.

From the beginning, the members of our group were conscious that our project might be viewed in this way, and we worked hard not to fall into disembodied academic abstraction. In fact, one of our secondary agendas in this book has been to try to demonstrate the practical relevance for practical problem solving of humanistic disciplines that are rarely even consulted by policymakers and activists who devote themselves to environmental protection. People often appeal to the natural and social sciences in trying to understand environmental problems; we hope that after reading this book they will appeal to the humanities as well.

The challenge we faced was how to make this case as persuasively as possible. At that first October meeting, I repeatedly reminded my colleagues that we would be writing a book together and that it should speak not just to us or to our academic peers but to the much broader public—people who care about the environment and wish to understand why they relate to it as they do. As we cast about for ways to show such readers that the real-world problems of everyday life raise fascinating questions about the human place in nature and how people think of it, Donna Haraway proposed that we begin by discussing what she called “found objects”: texts, photographs, advertisements, paintings, anything that would exemplify as concretely and vividly as possible the ideas of nature we wished to explore. Each of us, she suggested, should bring in an image or a text that would force the group to think about nature in new and unexpected ways. The resulting gallery of “found objects” would give us a rich and wonderfully playful tool for launching our discussions and getting to know one another’s different perspectives at the same time.

Like so many of Donna’s contributions to the group, it was a brilliant proposal. When we regathered in Irvine three months later, we arrived with an odd collection of found objects that would shape our discussions for the rest of our time together. Some were as quirky as a box of Heritage O’s breakfast cereal—manufactured by a Canadian company called Nature’s Path Foods, Inc.—or an advertisement for the computer game *SimCity 2000*, “the ultimate city simulator.” Others were as serious as a discussion of ecological sustainability in a scientific journal or a *New York Times* article on the problems faced by native peoples in the Amazon rain forest. Each provoked lively discussion, and a few became so central to our thinking that we kept returning to them throughout the semester.

Probably the group’s favorite found object was a collection of newspaper articles and tourist brochures that Richard White distributed on the Rocky Mountain Arsenal, in Denver, Colorado. Built during World War II and once a major Department of Defense manufacturing facility, the 17,000-acre site was used for nearly forty years to produce a long list of extraordinarily toxic substances: aldrin, dieldrin, atrazine, chlordane, mustard gas, phosgene, methyl parathion, napalm, and many others. Along the way, hundreds of millions of gallons of highly poisonous chemicals were deposited in landfills and waste basins on the site. As a result, the Rocky Mountain

Arsenal is now among the worst toxic waste dumps in the United States. But that is not all it is. Partly because the site is so toxic that most people have avoided it for decades, it has emerged as one of the West's most remarkable wildlife refuges. Its wildlife populations are more diverse and abundant than those anywhere else in the central Rockies, so the arsenal staff now devotes considerable energy not just to cleaning up toxic waste but to promoting environmental education at the site. More and more visitors come to the arsenal to enjoy its "natural" wonders, leading some to dub it the "Nation's Most Ironic Nature Park."⁵

The paradoxes of such a place are endlessly fascinating. Here we have one of the nation's most polluted landscapes, which is also among its richest wildlife preserves. In trying to figure out what to do with it, we face the dilemma of deciding whether to clean up its waste dumps even if doing so might endanger the creatures that now make their homes there. How do we choose between the animals that seem to be thriving at the arsenal and the people who fear that it threatens the value of their homes and the health of families? There is nothing natural, surely, about the arsenal's toxicity—and yet that toxicity is itself one of the most important things supporting the wild nature for which the place is now celebrated. The familiar categories of environmentalist thinking don't seem to work here, since we have no clear indication of what would be "natural" or "unnatural" to do in such a case. Instead, it leaves us with an all too familiar riddle: How can we act in an uncertain world where our familiar compass bearings don't work as well as we once thought they did, and how must we change the way we think in order to reorient ourselves and act responsibly?

The ability to blur the boundaries between "natural" and "unnatural" is precisely what makes the Rocky Mountain Arsenal and other found objects so useful for encouraging us to question our assumptions about what nature means and how we should relate to it. In the pages that follow, we have gathered a number of our most provocative found objects into what we call "albums," located at the end of each major part of the book. Our original found objects about the Rocky Mountain Arsenal, for instance, appear in an album following this introduction, so you can read for yourself about the site and think about the dilemmas and paradoxes it poses. Although the found objects in most of these albums are only rarely addressed in our individual essays, our hope is that you will soon perceive their direct relevance to the themes we discuss throughout the book. Indeed, once you have become accustomed to the quirky eclecticism of these texts and images, we hope you will begin to collect others for yourself, for you will find, as we did, that they are all around us. Virtually every newspaper, magazine, and television newscast offers equally vivid examples, as do the landscapes and environments in which we make our homes. All can serve as grist for daily reflection about the many meanings of nature in our ordinary lives.

That was certainly what happened to us in Irvine. It is not too much to say that for many of us, southern California became the most vivid found

object of all, continually echoing and reflecting the ideas we discussed in our weekly meetings. Just before we arrived, a 6.8 magnitude earthquake shook the area around Northridge, severely damaging many neighborhoods in the northern reaches of the Los Angeles Basin. Although its effects on Irvine were slight—the occasional aftershock adding just a smidgeon of excitement to our otherwise calm existence—together with the October fires it became a symbol of the tenuously ambivalent relationship between nature and humanity in this vast California metropolis. Add to these "natural" problems the longstanding economic recession that California's defense-dependent economy has suffered from the end of the Cold War, as well as the disaster that has overtaken the University of California system as a result of property tax reform and the ensuing fiscal crisis, and you get a recipe for deep malaise in a state whose residents often in the past seemed unaccustomed to that emotion. Those of us who came to the seminar from outside Los Angeles arrived to find a lot of soul-searching about whether the California dream might finally be over or might even have been an illusion in the first place.

My favorite symbol of this malaise was the handwritten cardboard sign my family and I saw on the back of a U-Haul trailer in Carlsbad, New Mexico, during our drive from Wisconsin to Irvine. It showed a crude map of California inside a circle with a diagonal line slashed across it. Beneath this image were written these words:

THE CALIFORNIA DREAM:
EARTHQUAKES
FIRES
FLOODS
MUDSLIDES
RIOTS
RECESSION
CROWDING
TRAFFIC JAMS
SMOG

WE'RE GOING HOME TO TEXAS!

Since we too were pulling a U-Haul, we introduced ourselves to the family responsible for this sign and asked what part of California they were leaving. Their answer: Irvine.

This is a good story and an amusing found object, but it's worth reading the sign once again to consider its evidence that the California dream is over. Its most noteworthy feature is the way it unhesitatingly mingles problems that seem completely natural with problems that seem completely human. Earthquakes, surely, can't be blamed on anything but the natural movements of the San Andreas and its associated faults, while one would hardly be inclined to blame anyone but people for riots or traffic jams (though we

might argue for quite a while about *which* people to hold responsible for such things). Often when we label a problem as "natural," we imply that there's not much we can do about it. It's just the way things are, and we'd better get used to it. Although the engineers of southern California have devoted immense energy to designing structures capable of withstanding large earth movements, and although Californians for the most part seem inclined to trust the engineers' assurances that these structures are safe, many people make their peace with the shaking earth by fatalistically accepting its inevitability. All one can do in the end is hope that when the Big One comes, the house that collapses won't be one's own. Earthquakes are natural and can be tolerated as such, at least until an experience at the upper end of the Richter scale shakes one's faith in fatalism.

But interesting problems lurk beneath the surface here. It is not at all clear, for instance, that even earthquakes are as natural as the previous paragraph would suggest. The Northridge quake affected different neighborhoods and structures in very different ways. Sometimes this was because of underlying strata and fault systems that concentrated the shaking motion in unexpected places like Santa Monica. But neither the underlying geology nor anything else in nature explains why some of the most severely damaged buildings were apartment complexes with unreinforced garages on their first floors. Such architecture is the product of economy and culture, not nature. Likewise, no feature of the natural environment can explain why some neighborhoods—Balboa Boulevard in Granada Hills, for instance—were able to rebuild so quickly following the quake, while others—Hollywood Boulevard near Western Avenue, for instance—became virtual ghost towns. These differences in the way the earthquake affected the built environment reflect differences in the social environment, not the natural one.⁶ Most suggestive of all, perhaps, is the reminder that some of the worst effects of the quake occurred in places where people had consciously chosen to ignore key features of the local landscape. In the San Francisco quakes of 1906 and 1989, some of the most severe damage happened where people had built houses and highways on landfills in old wetlands. In the Northridge quake of 1994, no single effect was more disruptive to the lives of more people than the closing of the heavily trafficked Santa Monica Freeway. And yet the only place where that highway collapsed was a stretch of ground that bears the place-name La Cienaga—"swamp" in Spanish.⁷ Although it may be perfectly natural in an earthquake for wetlands to shake more violently than drier ground, there is nothing natural—common though it may be—about building highways or houses in such places.

The cardboard sign on that U-Haul trailer did not specifically blame nature for its authors' flight from California. Instead, it mocked what it called the California Dream with a litany of disasters that for more than just this one family had turned the dream into a nightmare. The sign made no distinction between natural and unnatural hazards, and this surely says something important about the way people often think about the environ-

ment in general. Problems like smog, which represent the mingled effects of complex natural and human causes, are so diffuse in their origins and so normal a feature of life in the Los Angeles Basin that they might as well be natural. After a while they become second nature to us, and we do our best to ignore them. For someone who fears being trapped inside it, even a traffic jam or a riot can seem like a force of nature—vast and inescapable, something we can accept or flee but not change. Treating such things as normal and inevitable in effect naturalizes them, placing them beyond our control and excusing us from having to take responsibility for them, making it easier to pretend that they have little or nothing to do with our own actions.

Here one is reminded of another California nightmare listed on that sign: wildfires like the ones still burning as we gathered in Irvine for our first meeting that October. When we walked over to look at the apartments in which most of us would live, we tried not to think about the blackened, smoldering hillsides we couldn't help seeing on a horizon that was far too close for comfort. Several months later our resident ecologist, Michael Barbour, would take us on an extraordinary field trip to the site of the Laguna Canyon fire, which had burned nearly 14,000 acres and devastated dozens of homes before dying out less than a mile from the Irvine campus. Such fires are, of course, a natural feature of California's coastal chaparral ecosystems, which contain some of the most flammable vegetation on earth. Standing amid the ruins of once beautiful houses, surrounded by plants that were already sending up vigorous green shoots from the ashes, we could see all too easily why the buildings had gone up in smoke. Indeed, we were able to pinpoint the area where the next chaparral fire is almost certain to occur, given the age of the vegetation and the accumulated fuel load. It too will destroy many homes. If the rains cooperate in just the wrong way, such a fire will be followed by devastating mudslides like the ones we saw at Malibu, producing landscapes without so much as a blade of grass. At Malibu, the mud flowed down in knee-deep rivers through the posh beachhouses that blocked its path to the sea. California Dream indeed!

The irony is that the people who build in exposed locations like these—the locations most susceptible to the fire and mud—are often those with the greatest ability *not* to do so. Hillside real estate with ocean vistas commands prices in Los Angeles that only the wealthiest homeowners can afford. The engineering and architectural feats that permit houses to stand with elaborate props on slopes that would make even a mountain goat think twice before ascending are nothing less than astonishing for anyone accustomed to living on flatter ground. To spend millions of dollars to live suspended in midair above fire-prone vegetation on soil with only the most tenuous commitment to remaining in place, all within a few dozen miles of the San Andreas Fault, would seem to make no sense at all. And yet even while standing in the ashes with scenes of devastation in all directions, one can easily see why people build here anyway. The views from these places are breathtaking. The sight of such a landscape each time you step out your



Foundations of burned houses overlooking Laguna Canyon fire area. (Photograph by William Cronon)

front door is a reminder of what it means to be alive—even if that reminder ultimately kills you. Since World War II, roughly 75,000 upper-income homes have been built on hillside lots by people seeking a room with a view.⁸ They presumably have at least some inkling of the attendant dangers, though it is surprisingly easy to forget the quakes and the fires and the mud while gazing out on the intoxicating blue of the Pacific. Why do they do it? They put themselves and their families at risk for the simple reason that they want to be close to nature.

This is the chief paradox of southern California, the feature of its environment that makes it such a perfect place for meditating on the complex and contradictory ideas of nature so typical of modernity. Many of the vices for which the region is most infamous—indeed, virtually every item on that U-Haul sign—are simply the mirror opposites of the virtues for which it once was, or still is, famous. Without the faults and the quakes, the landscape would never have acquired its astonishing physical relief, the mountains that climb so abruptly out of that stunning ocean. The slopes that offer such breathtaking views also tilt the shattered bedrock and unconsolidated soil well past their angle of repose, tempting them to head downslope at the least invitation. The vegetation keeps the sight lines open, without cluttering the horizon with trees, and is often the only thing holding the soil in place—but it is also very fond of burning. The glorious climate, with its endless sunny days, rarely provides the rainfall that might clear the air of smog, or

GIVE THE CANYONS A BREAK! WILDERNESS AT WORK

WHAT WILL HAPPEN NEXT

Despite the lifeless appearance of the blackened hillsides, natural recovery is already underway. The remaining ash contains nutrients that will aid in the regeneration of the affected plant communities. Outlined below is the anticipated evolution of the landscape.

1 The heat of the fire activates the germination of many native seeds. Other plants regenerate by root sprouting.

2 Some of the first plants to reappear on the blackened landscape will be colorful wildflowers, including poppies and lupines.

3 Over the next few years, the native shrubs (Coyon, California Sagebrush, Lemonadeberry, Blackberry) will begin to reappear.

4 As various plant communities regenerate to their former levels of diversity, associated wildlife (California Gnatcatcher, Yucatan Jay, White Throat, Golden-crowned Kinglet) will return.



WHAT YOU CAN DO TO HELP!

Respect the wilderness. Please stay out of burned areas!

The fire has left the wilderness in a fragile state. Premature access could damage plants that are trying to come back after the fire, as well as further traumatize displaced animals.

Be patient!

All land managers are working together to restore the canyons to public access as soon as possible.

Explore one of Orange County's other wilderness areas while the canyons heal.

ALPINE REGIONAL PARK
CANYON WILDERNESS PARK
CIVILIAN ANTHROPOLOGICAL ARCHAEAL PARK
CUNEIFORM MUSEUM
SANTA ANA RIVER WILDERNESS PARK

Contact land managers for future access and volunteer information.

ALPINE REGIONAL PARK
CANYON WILDERNESS PARK
CIVILIAN ANTHROPOLOGICAL ARCHAEAL PARK
CUNEIFORM MUSEUM
SANTA ANA RIVER WILDERNESS PARK

"Give the Canyons a Break! Wilderness at Work." (County of Orange, EMA/Parks & Recreation)

the water this metropolis needs to quench its insatiable thirst. The automobiles that produce the smog and jam the highways are also the means for fulfilling the ultimate suburban dream, enabling their owners to put a great distance between workplace and home, and permitting them on weekends to head out to the beach or the freedom of the hills. The crowding is but an ironic measure of the city's success, for the people who come in pursuit of the dream are all too often seduced into thinking they can leave behind the very problems they bring with them. As for the riots, they are a grim reminder, like so many other features of this favored landscape, that the troubles we ignore always come back to haunt us. Not even going home to Texas—that land of droughts and floods and hurricanes and tornadoes, to say nothing of urban sprawl and racial strife and the boom-and-bust economy—will save us in the end.

What better place than southern California, in short, to explore the contradictory meanings of nature in the modern world—not because southern California is unique but because it perfectly exemplifies so many tendencies of modern American culture. As our group proceeded with its work, we soon discovered that certain themes and motifs kept recurring in our discussions, each attached to some significant way of thinking about nature, and each also having important physical analogues in the landscapes around us. The individual essays in this book address these themes and motifs in far greater detail than this introduction can, but perhaps it would be useful here to offer a quick guided tour of the several versions of nature that most concerned us. The list I offer is anything but comprehensive, but it certainly identifies some of the most important ways that contemporary Americans think about nature. Perhaps the most important lesson to remember while reading this list, as I noted at the beginning, is that none of these natures is natural: all are cultural constructions that reflect human judgments, human values, human choices. We *could* choose to think about nature differently, and it is surely worth pondering what would happen if we did.

To make this provocative claim is, of course, to fly in the face of what people commonly mean when they speak of “nature,” because one of the most important implications of that word is that the thing it describes is *not* of our own making. This is the view of nature the essays in this book most explicitly seek to critique. We might call it *nature as naive reality*. It is in fact one of the oldest meanings that the word “nature” carries in the English language: the sense that when we speak of the *nature* of something, we are describing its fundamental essence, what it really and truly *is*.⁹ Indispensable as the usage may be, it is dangerous for what it tempts us to assume: the very thing it seeks to label is too often obscured beneath the presumption of naturalness. When we refer to “the nature of *x*,” we usually imply that there is no further need to analyze or worry about that nature. We need not ask where it came from or on what contingencies it depends, for it is simply the way *x* is. Its meaning is transparent and uncomplicated, so we can take it for granted as a given: that is its nature.

A central tenet of modern humanistic scholarship is that everything we humans do—our speech, our work, our play, our social life, our ideas of ourselves and the natural world—exists in a context that is historically, geographically, and culturally particular, and cannot be understood apart from that context. If we wish really to make sense of a document like the Declaration of Independence, for instance, we dare not assume that the people who wrote it used words or conceived of the world precisely as we do. Unless we are willing to make the imaginative leap backward to immerse ourselves in the cultural universe of their time and place, we will make grievous errors in understanding what they meant. Moreover, we cannot assume that the people who subsequently read that document understood it as its authors did: the Declaration of Independence no doubt meant something very different to Jefferson Davis and Abraham Lincoln in 1861 from what it meant to Thomas Jefferson in 1776 or to Martin Luther King, Jr., in 1963. And so we take on the immensely challenging burden of trying to understand the *changing* meanings and *different* cultural contexts that have characterized human life and thought in all their infinite particularity.

This is why humanists are often so suspicious of arguments that appeal to something called “human nature.” That term compresses such diverse and complex phenomena into such a flat, colorless cartoon that it erases most of the things scholars wish to understand. It assumes as an uncontested fact that humanity can be captured in a single, monolithic description, when the burden of proof for actually demonstrating such a claim would for all but the crudest assertions be so immense as to be practically impossible. The same can be said for the concept of nature itself. Our ways of thinking about the natural world are powerfully shaped by our time, our place, and our culture. When people use the word “nature” to refer to the whole of creation, they are echoing a long semantic history that tracks backward to the medieval church and even to classical antiquity, implying without much reflection that nature is One Thing with One Name, a monolith that can be described holistically in much the same way as God. Nature in Western culture is the product of a monotheistic religious tradition; it is often unrecognizable for people whose cultures have not taught them to worship a lone deity.¹⁰

This is not the place to offer a comprehensive history of nature in Western thought. For the purposes of this book, I simply wish to argue that the burden of proof should be with those who assert the universal nature of nature, for the evidence against such a view is enormous. Ideas of nature never exist outside a cultural context, and the meanings we assign to nature cannot help reflecting that context. The main reason this gets us into trouble is that nature as essence, nature as naive reality, wants us to see nature as if it *had* no cultural context, as if it were everywhere and always the same. And so the very word we use to label this phenomenon encourages us to ignore the context that defines it. If we wish to understand why we think of nature as we do—for instance, even so basic a matter as why the object of

this sentence is expressed as a singular noun—then we cannot afford to fall into the trap that this word has laid for us. If we wish to understand the values and motivations that shape our own actions toward the natural world, if we hope for an environmentalism capable of explaining why people use and abuse the earth as they do, then the nature we study must become less natural and more cultural.

The appeal to nature as naive reality is often linked to a second major cluster of ideas that surround this word: *nature as moral imperative*. One need not travel a very great distance in speaking of “the nature of *x*” to get from “this is the way *x* really is” to “this is way *x* ought to be.” The great attraction of nature for those who wish to ground their moral vision in external reality is precisely its capacity to take disputed values and make them seem innate, essential, eternal, nonnegotiable. When we speak of “the natural way of doing things,” we implicitly suggest that there can be no other way, and that all alternatives, being unnatural, should have no claim on our sympathies. Nature in such arguments becomes a kind of trump card against which there can be no defense, at least not as long as our opponents share our values—and how could they not, if those values are as natural as we claim? Only a fool or an incorrigible sinner could fail to respond to so compelling a moral imperative. This habit of appealing to nature for moral authority is in large measure a product of the European Enlightenment. By no means all people in history have sought to ground their beliefs in this particular way. Indeed, it would have been far more common in the past for people in Western traditions to cite God as the authority for their beliefs. The fact that so many now cite Nature instead (implicitly capitalizing it as they once might have capitalized God) suggests the extent to which Nature has become a secular deity in this post-romantic age.

Because the values that people attach to nature as moral imperative are so dependent on cultural context, it makes little sense to discuss this phenomenon in the abstract. Nature as moral imperative always implies a very particular vision of what ideal nature is supposed to be. For some modern Americans, ideal nature is clearly a pristine wilderness, as I argue elsewhere in this book. For others, as Kenneth Olwig notes in his essay, ideal nature is the pastoral countryside or the small town, while others still would celebrate the suburb or even the city as the natural home of humankind. It hardly needs saying that nothing in physical nature can help us adjudicate among these different visions, for in all cases nature merely serves as the mirror onto which societies project the ideal reflections they wish to see.

The Judeo-Christian tradition nonetheless has one core myth that is so deeply embedded in Western thought that it crops up almost anytime people speak of nature. It is so widespread in modern environmental thinking that it deserves to be labeled as a separate cluster of ideas in its own right: *nature as Eden*. Candace Slater, Carolyn Merchant, and Kenneth Olwig were responsible for introducing this concept to our seminar in Irvine, and their essays explore it in detail. It quickly became one of the most fertile topics

we discussed. Candace in particular argued that a great many environmental controversies revolve around what she calls “Edenic narratives,” in which an original pristine nature is lost through some culpable human act that results in environmental degradation and moral jeopardy. The tale may be one of paradise lost or paradise regained, but the role of the narrative is always to project onto actual physical nature one of the most powerful and value-laden fables in the Western intellectual tradition. The myth of Eden describes a perfect landscape, a place so benign and beautiful and good that the imperative to preserve or restore it could be questioned only by those who ally themselves with evil.

Nature as Eden encourages us to celebrate a particular landscape as the ultimate garden of the world. In her essay, Candace Slater demonstrates that the Amazon rain forest now plays this role for a great many people in the United States and Europe who have never actually seen that forest for themselves. Kenneth Olwig points to the ways in which Yosemite offered nineteenth-century Americans an ideal combination of pristine wilderness and pastoral garden, turning it into a nationalist symbol of paradise. And for many of us in the Reinventing Nature group, it also seemed that Eden, albeit a problematic Eden, existed right on our doorsteps, in Irvine and southern California generally. The awe-inspiring views of the Pacific that tempt wealthy homeowners into the path of the fires are only one manifestation of the love affair with nature that is so near the core of southern California culture. Los Angeles has fewer public parks per capita than most other American cities, but it possesses nearly eighty miles of beachfront unequaled by any other city in the world.¹¹ Marketed even in the late nineteenth century as the ultimate garden suburb, a city with no downtown but with houses in grassy yards everywhere, Los Angeles and its neighbors have long participated in the Edenic myth. As Reyner Banham has written, “Whatever man has done subsequently to the climate and environment of Southern California, it remains one of the ecological wonders of the habitable world. Given water to pour on its light and otherwise almost desert soil, it can be made to produce a reasonable facsimile of Eden.”¹²

The city’s developers make their living by selling Eden, and they know their business well. The real estate section of the *Los Angeles Times* is unquestionably the largest and most colorful I have ever seen. Each Sunday brought a sheaf of promotional literature for the subdivisions whose explosive growth we could monitor every time we took a drive. The advertisements promised not only the social attractions of living in a planned community—the reassuring safety of gated entrances staffed round the clock by security guards, the convenience of nearby schools and shopping malls, the recreational opportunities of adjacent country clubs and golf courses—but also the *natural* attractions of a community whose planners really care, they tell us, about protecting the environment. Irvine bills itself as the largest planned community in the nation and has served as the prototype for many of its neighbors. Dove Canyon, on the eastern outskirts of Irvine,

offers would-be buyers "the more perfect world you've promised yourself, and it's time you made it your home."¹³ The developers of Rancho Santa Margarita—"where the west begins. Again"—explain, "It all started years ago with a vast rancho rich in history and natural beauty. And then came a dream. To develop the land into a master-planned community while carefully protecting all that makes the land so wonderful and beautiful." Even though this "may look like a vacation destination, it isn't. It's a hometown."¹⁴ Just so are we able to regain paradise if only we can afford the down payment.

Like the original garden, these new Edens are not without their problems. Conflicts often erupt over the particular vision of nature—God's or Satan's—they are meant to express. While we were living in Irvine, an Edenic controversy swirled around a small bird called the gnatcatcher. It had been proposed as an endangered species so that environmentalists could avail themselves of the federal courts to prevent further development of the bird's coastal sage scrub habitat—the very habitat most at risk to be turned into spanking new versions of Eden by the developers. In May 1994 a federal judge overturned the bird's listing under the Endangered Species Act, thereby throwing open the remaining chaparral to development. For the environmentalists this was tantamount to casting it into Satan's hands; for the developers it assured that the subdivided paradises of Orange County could continue to expand. As one environmentalist declared, "This is absolutely a step in the wrong direction, one that could have a devastating impact on the habitat protection program" of the entire Orange County landscape. Developers, on the other hand, celebrated the court's rejection of what they saw as environmentalist efforts "to illegitimately twist the Endangered Species Act into a tool for stopping development in general."¹⁵ The point here is not the particular merits of either argument but the fact that a single small animal has for peculiar legal and cultural reasons been made to bear the entire burden of defending or delimiting Eden. In the gnatcatcher case, both sides appealed to a common moral tradition—both employed Edenic language to defend their case—even though the natures they sought to protect on the coastal hills could hardly have been more different.

This is not unusual. Consider the case of the homeowners association in Laguna Niguel that decided after a closed meeting to resolve a long-standing dispute among its members by cutting down two hundred of the town's eucalyptus trees, most of them located in the middle of people's yards. What problem justified such drastic intervention? Residents living high up on the community's slopes were having their views of the ocean blocked by the fast-growing trees. They naturally felt that their quality of life and the value of their houses were being jeopardized, since the premium prices they had paid for their properties had been predicated on the open view. Homeowners farther down the slope, on the other hand, not having the same views or property values to protect, just as naturally prized the trees for the cool shade they offered on the hot hillsides. Feelings ran so high that the tree

cutters were at one point threatened with a shotgun, and several homeowners wept openly as their trees came down. One woman who had lost fourteen eucalyptuses on her property said that before their removal, "it was like living in a park setting. I hope this is illegal what they have done, because if not, it's definitely immoral."¹⁶

Here again there is no clear right or wrong: both sides were merely defending their corner of Eden, trying to protect the nature they valued so highly. The violence of their disagreement testifies to how important our views of nature can be in defining who we think we are and the kinds of lives we wish to lead. In the United States, and especially in southern California, Eden is never far beneath the surface in shaping what we imagine to be the perfect home in the perfect natural setting. Ever since the Puritans arrived in Boston to build their fabled city on a hill to serve as a beacon for all the world, Americans have hankered after the Protestant mission of reforming an old world and a faded dream by starting over again. In this land of new beginnings, the place to which people most wish to return is inevitably some version or another of the original garden, the paradise that would have been ours if only we hadn't lost our way.

Nowhere in the United States are these impulses more powerfully expressed than in California. Continent's end has long been the final resting stop on the great frontier migration, the last best place for starting over. It would be hard to buy property in Orange County without being influenced by the real estate literature that promises paradise for the price of a mortgage. And there is nothing necessarily wrong with this. Most of us, I suspect, have some notion of where we would most like to live if we could have the home of our heart's desire. Trouble surfaces only when, as so often happens, one person's Eden comes into conflict with another's, much as God's plans for paradise collided with Satan's. Then the Edenic myth becomes the vehicle for casting our adversaries into the heart of darkness, demonizing them as allies of the dark angel who so long ago seduced us into this, our present exile in a fallen world. Even those who do not subscribe to the Judeo-Christian imagery can fall victim to its moral dualism, because that is how Eden tempts us. It is a place of absolute good and absolute evil, of actions that are unambiguously right and wrong. When we project its polarized, black-and-white myth onto the ambiguous world of gray on gray that we actually inhabit, the power of its imagery sparks our passions but darkens our vision. It buys clarity at the expense of understanding by tempting us to reenact its most ancient of stories rather than listen for whether there might be some other tale to tell.

I initially introduced Eden as a special case of nature as moral imperative, but these disputes and the work of the real estate developers suggest that Eden can point in another direction as well: *nature as artifice, nature as self-conscious cultural construction*. What is so striking about the southern California landscape is the extent to which it has been transformed into a vision of nature utterly different from the ecosystems that once character-

ized the region. In this, it represents a more extreme example of the careful manipulation of natural systems that Anne Whiston Spirn describes Frederick Law Olmsted performing as he helped found the profession of landscape architecture. Olmsted sought to design *with* nature, and the paradox of his success is that many of his most important creations are no longer even recognized as such: people look at them now and see nature, not Olmsted. In less sensitive hands than Olmsted's, artifice can triumph even more completely. Once we believe we know what nature *ought* to look like—once our vision of its ideal form becomes a moral or cultural imperative—we can remake it so completely that we become altogether indifferent or even hostile toward its prior condition. Taken far enough, the result can be a landscape in which nature and artifice, despite their apparent symbolic opposition, become indistinguishable because they finally merge into one another.

One might go so far as to say that the replacement of nature by self-conscious artifice is a key defining quality of the modern landscape. If so, Irvine is a near-perfect example of the genre. Like many planned communities in southern California, it takes its inspiration in part from that amazing planned environment in Anaheim a few miles to the north: Disneyland. There, Disney's imagineers succeeded in replicating on a very small plot of land a jungle, a Louisiana bayou, a desert, a coral reef, a miniaturized English countryside, even the most famous mountain in the Alps. The landscaping of Disneyland is rarely less than brilliant, with each different habitat and playground screened from its neighbors with carefully controlled sight lines, plantings, and sound baffles. The animals in these landscapes always perform perfectly on cue as the tourists pass by, because most are machines that reproduce the appearances of nature without its bothersome misbehaviors. The streets are constantly swept by uniformed attendants so that no litter ever lingers for long, and are also steam-cleaned each night to make sure they are ever immaculate. Social problems are carefully excluded from the theme park, along with the people who might inflict those problems on this land where fantasy and commercial profit reign supreme. It is in all ways an extraordinary place, a triumph of artifice over nature.

The same might be said of Orange County itself. Here's how the California Office of Tourism sells the place to visitors:

It's a theme park—a seven-hundred-and-eighty-six square mile theme park—and the theme is "you can have anything you want."
It's the most California-looking of the Californias: the most like the movies, the most like the stories, the most like the dream.
Orange County is Tomorrowland and Frontierland, merged and inseparable. 18th century mission. 1930s art colony. 1980s corporate headquarters. . . .
The temperature today will be in the low 80's. There's a slight offshore breeze.
Another just-like-yesterday day in paradise.
Come to Orange County. It's no place like home.¹⁷



Ansel Adams, Campus Park, the Commons, and Library Administration Building, University of California at Irvine, shortly after construction. (Sweeney/Rubin Ansel Adams Fiat Lux Collection, California Museum of Photography, University of California at Riverside)

Like Disneyland, Orange County is a place where planners, designers, and real estate developers have remade nature to make it conform to their own ideal. One has only to look at Ansel Adams's photographs of the first buildings at the University of California at Irvine to see how completely the landscape has been transformed. As recently as the late 1960s, the university sat virtually alone in a vast empty grassland, the dryness and openness of the vegetation visible in all directions. Today one has to walk to the edge of the campus to see any remnants of this grassland, which have been set aside as a nature preserve—a preserve that incidentally could easily serve as the corridor for bringing wildfire to this community if the Santa Ana winds should ever blow in the wrong direction on a day when the hills are burning. Elsewhere the original vegetation has given way to the succulent ice plant, the spicy-smelling eucalyptus, and all the other non-native plantings that have

turned this semiarid land into a subtropical paradise. As Banham says, water is all it takes to build Eden in this place.

What most struck many of us after living in Irvine for a time was not just the transformation of the local ecosystem but the way its idealized nature reflects underlying assumptions about order and community. It is a city where everything has been given its proper place so that nothing need ever interfere with anything else. Everything is well under control. The major city streets are carefully designed so that each block has only a single point of access, with the result that cars can travel at fifty-five miles per hour on streets that in any other city would be posted at least fifteen to twenty miles per hour lower. Traffic flow is almost as brilliantly managed here as in Disneyland: the bumper-to-bumper cars so characteristic of Los Angeles often disappear when freeways reach the margins of Irvine. The highway engineers have finally made their peace with U-turns, so much so that they become the chief device permitting high-speed movement on limited-access streets. Bike lanes are everywhere, often completely separated from cars on roads designed solely for two-wheeled vehicles. Parks wind their way along the major drainage channels, so those who wish to bike or stroll beside the cement-lined creeks can easily do so to take in the view.

The only problem is that all this meticulously arranged openness somehow never quite becomes *public*: private space rarely seems to become public place. One experiences the parkland of Irvine, like the freeways, privately, as an individual, without any real sense that one is doing so as the member of a community. The same is true of the ubiquitous shopping malls, the parks, even the UC-Irvine campus. Many of us in the seminar had the feeling months after our arrival that we were still trying to find Irvine: even now, I couldn't tell you where to locate the downtown—it was designed not to have one—nor could I give you directions for finding any but a small handful of places. For all the care lavished on this planned community—maybe even because of that care—it is an extraordinarily difficult place to navigate. I once asked a woman at the checkout counter in my local supermarket how to get to another store less than a mile away. Even though she had lived in the city for several years, she just shook her head and said she wasn't sure. "I used to drive a cab," she remarked, "and I always tried to say no when they wanted me to pick up someone in Orange County. Nothing makes sense here. I'm still always getting lost." The curving streets are undoubtedly part of the problem, but so is the planner's impulse to keep everything neatly segregated from everything else. The local geography seems designed to reveal itself on a strictly need-to-know basis. One can search in vain to find an address on any of the major streets, a problem one typically solves by getting directions in advance, always starting from the nearest shopping mall. Like the walls and gates behind which so many people live here, this is perhaps just another way of protecting privacy. It certainly prevents one from having any clear sense of relationship to a larger community.

For me the most powerful symbol of this impressively planned, well-controlled, elegantly designed landscape was right in our own yard. I have never lived in a house with a more immaculate garden. There was no grass anywhere in sight, and nothing we needed to mow. Instead, the garden was filled with palms and ferns and mosses whose succulent leaves and deep green hues bespoke an unfailing supply of water. Each night, at odd intervals we could never predict in advance, a computer in our garage turned on the sprinklers and gave our lovely plants the drink they so needed after their long hot day in the California sun. The water that quenched their thirst (and our own) probably traveled hundreds of miles from the Owens Valley or the Colorado River to make our private backyard Eden possible—though it is a token of this strange land that I will never know for sure which distant river was sacrificed to make our green space possible (and to be fair, the garden was maintained with gray water recycled from other uses). Despite the luxuriance and richness of the garden, we never raised a finger to take care of it. That work was done by Mexican American gardeners who arrived at discreetly chosen times when their activities would not disturb the calm of our pastoral retreat.

It was all so peaceful, so Edenic and natural, that one would surely have thought it would be easy to get used to. And yet somehow I never did. I admired the beauty and the ingenious contraptions that made it possible, and I was grateful for the hard work I did not have to do. But I never quite felt at home. For some perverse reason the garden memory that remains most vivid in my mind is of the snails that slithered across our walkway each night after the sprinklers had done their work. We could never see them as we made our way home in the evening, so almost every night we winced as their shells crunched loudly beneath our feet, forcing us to clean mashed snail slime from our shoes before going inside. (Worse still were the mornings, when I occasionally stepped on them barefoot while groping for the morning paper in the dark.) The snails were the one element of this garden that had somehow escaped automation and control, the one example of nature doing its own thing instead of what the planners had prescribed. Never mind that the snails could hardly have been native to the place and depended just as much as our succulent plants on the artificial rain that our computer delivered each night. Because they didn't fit the plan, they somehow seemed more natural.

I will return to those snails in a moment. Orange County is a place so constructed that it verges on becoming still another form of nature: *nature as virtual reality*. This was a theme that Katherine Hayles and Donna Haraway introduced to our discussions in Irvine, and I think we were all surprised by how influential the idea became for the rest of us. We live in a time when the proliferation of networked computers, the power of morphing and fractal geometry, the ever more persuasive illusions of Industrial Light and Magic, the anarchic world of the Internet, and so many other features of the electronic universe make it increasingly possible to inhabit a cultural space



Snails on garden walkway, University Hills, Irvine, California. (Photograph by William Cronon)

whose analogues in nature seem ever more tenuous. Katherine shared with our group numerous examples of computer simulations and graphics that came close to constructing an alternative reality. We speculated together about the possibility that computer viruses might serve as the models for new silicon-based life forms that would live out their lives in electronic space. Some computer scientists now believe that the most effective way to create artificial intelligence will be to devise small self-replicating programs capable of mutating and undergoing evolution inside our machines, the idea being that they will eventually develop the complexity, self-referentiality, and autonomy needed to produce a consciousness akin to our own. At first glance the idea seemed bizarre to all of us, but the more we considered it, the more plausible it became.

The fascinating thing about virtual reality is that although it initially appears to be the least natural of human creations, the most disembodied and abstracted expression of modernity's alienation from nature, it can in fact serve as a powerful and rather troubling test of whether we really know what we're talking about when we speak of nature. One would think that the virtual would stand in pure opposition to the real, but when you put them next to each other this is not nearly so obvious. Yes, a person using computerized sensory apparatus to move through virtual space could hardly be more isolated from the surrounding environment. And yet the better the simulation, the more difficulty we begin to have in distinguishing it from the real. The more engaged we become with experiencing it, the more plausible it begins to seem as an alternative to the world we know—indeed, an alternative with real advantages. Even more than the planned landscape of Orange County, virtual reality seems to hold out the seductive promise of total control, an environment we can manipulate to our heart's content because it apparently offers no resistance to our fantasies. Some go so far as to imagine that it will ultimately enable us to escape the confines of our own bodies, so that the information in our neurons and synapses can be downloaded into a computer where our mind, our consciousness, our very being can shed its husk of flesh and finally enable us to fulfill the age-old dream of becoming, like the gods, immortal. This is not just science fiction; it is a plausible description of a future in which virtuality will become as real and natural to us as nature is today.

Many of us no doubt recoil from such a vision, but as the members of our group learned in Irvine, it is easier to recoil than to explain why we do so. Unnatural though they may seem, virtual consciousness and virtual reality emulate many more features of the "natural" world than one might at first assume. Katherine Hayles takes up some of these issues in her essay for this book, and I will not try to reproduce the intricacies of her argument here. Instead, I will offer just two observations. First, the dream of complete control is no more assured in a virtual world than in this supposedly more natural one. Among the many surprising features of virtuality is the fact that the closer it comes to emulating real life, the more chaotic and unpredictable

it seems to become. Programs designed to do one thing often turn out to do another, evolving in ways their original authors could not have anticipated. The more complex the systems become, the more they emulate the kinds of behaviors we so often see in nature. As in the real world, these often prove much harder to control, much more capable of taking us by surprise, than we could ever have imagined.

Just as strikingly, the real world we now inhabit already contains many elements in which the natural and the virtual mingle in such subtle ways that it can be surprisingly difficult to distinguish between them. This is among the lessons of Disneyland, in which plastic trees and mechanical animals mimic quite amazingly their counterparts in nature. Susan Davis took our group on a field trip to Sea World, where we watched Shamu™, the killer whale, perform its tricks—or rather its “behaviors,” as the Sea World staff insists on calling them—in a great tank of water with an enormous television screen standing behind to magnify the performance for the delighted audience. The images on the screen, backed by the resonant narration of James Earl Jones, were as important to the performance as the live animal and its trainers. Susan’s essay in this book discusses the complex ways in which this corporate theme park manipulates visitors’ experience of its creatures, raising the question of what is natural and what is virtual in such a place.

Sea World implicitly exemplifies one of the most powerful cultural constructions that shapes modern American attitudes toward nature: *nature as commodity*, a thing capable of being bought and sold in the marketplace quite apart from any autonomous values that may inhere in it. Market exchange and commodified relations with nature have been transforming the landscape of America, indeed, of the entire planet, for centuries. Few cultural conceptions have had greater ecological impact. Whether one looks at the destruction of the great herds of bison or flocks of passenger pigeons in the nineteenth century, the extirpation from North America of whole ecosystems like the tallgrass prairie, or the increasing assaults on biodiversity worldwide, the immense power of a political economy based on culturally commodified nature is everywhere apparent, producing an alienation from the natural world—and from the effects human actions have thereon—that is all too characteristic of modernity. Looking at the environment in this way comes so easily to members of modern Western cultures that it is virtually second nature. It is present in the trading pits of the Chicago Board of Trade, where all manner of natural resources become commodities, and it is no less present in places like Sea World, where nature itself—or rather, a particular *idea* of nature—is bought and sold as a consumable experience. The peculiar tendency of many cultures in the modern capitalist world to view nature in this way is yet another kind of virtual reality, a construction so comfortable that it seems utterly commonsensical, universal, and *natural* to those who inhabit it—no matter how problematic its consequences may be.

Jennifer Price gives another example of commodified nature in her essay

on The Nature Company, which many members of our group visited in Orange County’s famous South Coast Plaza shopping mall. Surrounded by some of the most upscale stores in America, the Nature Company manages the neat trick of standing in apparent opposition to its glitzy surroundings by offering a calm woodsy space where shoppers can enjoy the pleasures of our national pastime—shopping—while still affirming their green values by purchasing recycled greeting cards, rustic bird feeders, ecologically educational toys, ambient environmental sound CDs, and hand-made crafts from the indigenous peoples of the rain forest. What the Nature Company sells is not so much nature as authenticity—or what passes for authenticity in a consumer culture. It reassures its customers that they can participate in consumerism with their values intact, go to the mall and still get back to nature. Standing in the midst of such a store, surrounded by its many beautiful objects and basking in the image of nature it wants to sell us, we can legitimately ask whether this might not be yet another kind of simulation, another form of virtual space.

But theme parks and shopping malls are by no means the only ways in which the virtual and the natural are converging in our time. It is well worth remembering that some of the most dramatic environmental problems we appear to be facing as we enter the twenty-first century exist mainly as simulated representations in complex computer models of natural systems. Our awareness of the ozone hole over the Antarctic, for instance, depends very much on the ability of machines to process large amounts of data to produce maps of atmospheric phenomena that we ourselves could never witness at first hand. No one has ever seen the ozone hole. However real the problem may be, our knowledge of it cannot help being virtual.

The same is even more true of the phenomenon called global warming, which many people now take to be an absolute fact of nature. Like the ozone hole, it too is probably real, but our knowledge of it could hardly be more simulated. The computer models on which we base our predictions of what will happen as concentrations of greenhouse gases rise are in fact still so unsophisticated that they cannot even do an accurate job of predicting past climatic change, let alone change in the future. Load into them the data for 1900, and the weather they will predict for our present time bears little resemblance to what we are now experiencing. Given this rather awkward weakness in their software, the modelers have had to resort to a less troublesome forecasting technique. They run their programs forward in time, once using the data for today’s mixture of atmospheric gases, and once with doubled levels of carbon dioxide. After the computer has done its job, they compare the two runs and describe what will happen when we double the carbon dioxide. The only trouble is that this description is of the simulated doubling of a modeled gas in a virtual atmosphere, all of which bears only the most hypothetical relationship to the future world, for which we of course have no empirical data whatsoever. The model’s ability to predict the future is no more assured than its proven inability to predict the past.¹⁸ But

because the phenomenon being predicted is so complex, because its consequences could be so catastrophic, and because we have no better way to investigate it, we have no choice but to rely on these flawed tools. In a very real sense, global warming is the ultimate example of a virtual crisis in virtual nature—which is far from saying that it is unreal. Instead, it is proof that the virtual and the natural can converge in surprising ways.

None of this is very reassuring for environmentalists and others who look to nature as the ultimate foundation for their moral vision. In the face of culturally constructed landscapes and increasingly virtual experiences of the world, many of us would not be at all unhappy if nature would reassert its own authority over all this human unreality. This may be one reason why environmentalists so often seem drawn to prophecies of ecological doom that offer elaborate descriptions of the disasters that will soon occur because of our misdeeds against the earth. The genre is familiar enough to constitute yet another nature for our list. It is the nightmare inversion of Eden to which that eloquent U-Haul sign bore witness: *nature as demonic other, nature as avenging angel, nature as the return of the repressed*. It can range from something as trivial as those uncooperative snails in our Irvine garden, to natural disasters like earthquakes or floods, to the hypothetical horrors of global warming. At whatever scale we experience them, these things represent a nonhuman world that despite our best efforts we never quite succeed in fully controlling. Often we come close enough that we congratulate ourselves prematurely for our own triumph—and then are surprised when the long-silent fault or the hundred-year flood suddenly reveals our hubris. As one man wrote to *Time* magazine following the Northridge quake, “If Mother Nature has proved one thing, it is that she can be a real bitch.”¹⁹

Even beyond the earthquake and the fires, California offered numerous examples of nature in apparent rebellion during our stay. Early in the year reports surfaced of a high school in nearby Westminster where 292 students had been infected with tuberculosis by a single classmate, twelve of them with drug-resistant forms that would respond slowly to treatment if they responded at all. A little later the newspapers announced that the first killer bees had finally made it to California, and offered dire predictions of what this would mean for people who would now have to worry about being stung by them.²⁰ More dramatically, in April a young woman jogging near her home in the Sierra Nevada foothills was stalked and pulled from the trail by a female mountain lion and then quickly mauled to death. The lioness was hunted down and shot, lest she kill again. The woman left behind two small children; the lion, a seven-week-old cub. It undoubtedly says something about people’s ideas of nature, perhaps even their ideas of human nature, that public appeals on behalf of these young orphans soon yielded \$9,000 for the two children . . . and \$21,000 for the cub.²¹

What is interesting about such events is not that they occur. After all, what could be more natural than a mountain lion killing its prey or a great fault relieving its pent-up strain? What is really intriguing is the meaning we

ENTERING MOUNTAIN LION COUNTRY



A RISK

You are entering a wilderness park.

Mountain Lions are present and unpredictable. Be cautious. They are generally elusive, but have been known to attack without warning.

Your safety cannot be guaranteed. You are advised to stay alert for potential dangers. **CHILDREN MUST BE ATTENDED BY AN ADULT.**

Please respect the wilderness
and its wildlife.



COUNTY OF ORANGE
EMA/Parks & Recreation



“Entering Mountain Lion Country: A Risk.” (County of Orange, EMA/Parks & Recreation)

assign to them, for we have an inveterate habit of turning them into moral fables. The snails in my Irvine garden become small gruesome symbols of the limits to human control. The earthquakes exemplify nature's terrifying randomness—and also people's hubris in pretending that rare, irregular events can safely be ignored simply because they cannot be predicted. The mountain lion can serve as a token of nature's savagery—or as the innocent victim of human beings who in their efforts to live closer to nature unthinkingly invade the lion's home. Every environmental disaster, all the way up to global warming, stands as a potential indictment of the ignorant or culpable human actions that contributed to it.

The human inclination is to transform all such events into stories that carry a moral lesson. Nature as demonic other is Job's whirlwind, the horror of random suffering that is all the more terrifying because it offers no discernible justification for the pain it inflicts on the innocent and the guilty alike. Nature as the avenging angel is the dark side of the Eden story, the punishment that follows in the wake of our having listened to Satan's seductive advice. It is this story that makes us shake our heads so knowingly even as we sympathize with the families that lost their homes in the Laguna Canyon fire. *It's too bad, we say, but they brought it on themselves by building there. What did they expect? After all, the fires are only natural.* We do this even though we ourselves have almost surely made similar bargains with nature, whether we live in the fault zone or the floodplain or the path of great storms. When we become victims, these things are never our fault, though it is easy enough for us to see how others have foolishly placed themselves in harm's way.

People are drawn to nature as avenging angel for much the same reason that they are drawn to nature as Eden. It should by now be clear that the two are in fact opposite sides of the same moral coin. The one represents our vision of paradise: the good that is so utterly compelling that we feel no hesitation in claiming nature as our authority for embracing it. The other is our vision of hell: the place where those who transgress against nature will finally endure the pain and retribution they so justly deserve. There is a wonderfully attractive clarity in this way of thinking about nature, for it turns the nonhuman world into a moral universe whose parables and teachings are strikingly similar to those of a religion. We need such teachings, for they give meaning and value to our lives. To the extent that environmentalism serves as a kind of secular religion for many people in the modern world, it is capable of doing great good if it can teach us the stories, as religions often try to do, that will help us to live better, more responsible lives.

And yet: we must never forget that these stories are *ours*, not nature's. The natural world does not organize itself into parables. Only people do that, because this is our peculiarly human method for making the world make sense. And because people differ in their beliefs, because their visions of the true, the good, and the beautiful are not always the same, they inevi-

tably differ as well in their understanding of what nature means and how it should be used—because nature is so often the place where we go searching for the fulfillment of our desires. This points to one final vision of nature that recurs everywhere in this book: *nature as contested terrain.*

Over and over again in these essays, we encounter the central paradox of this complex cultural construct. On the one hand, people in Western cultures use the word “nature” to describe a universal reality, thereby implying that it is and must be common to all people. On the other hand, they also pour into that word all their most personal and culturally specific values: the essence of who they think they are, how and where they should live, what they believe to be good and beautiful, why people should act in certain ways. All these things are described as *natural*, even though everything we know about human history and culture flies in the face of that description. The result is a human world in which these many human visions of nature are always jostling against each other, each claiming to be universal and each soon making the unhappy discovery that even its nearest neighbors refuse to acknowledge that claim.

The history of environmentalism is fraught with this paradox. In his essay Jeffrey Ellis explores the long-standing search by leading environmental intellectuals for what he calls “the root cause,” which will trace all environmental problems back to a single source: overpopulation, capitalism, what have you. Their vehement disagreements have ironically stemmed from their shared wish to discover a universal explanation for what are almost surely multicausal phenomena. James Proctor analyzes recent debates about the future of old-growth forests in the Pacific Northwest and discovers adversaries whose different ethical systems lead them to very different visions of what the nature of the region should be. Giovanna Di Chiro describes the history of the environmental justice movement, detailing the many ways in which its struggles to achieve safer and healthier environments for women, workers, and people of color have been systematically ignored by most mainstream environmental organizations—precisely because these groups do not agree on what counts as a nature worth protecting. Richard White comes at the same problem from a very different angle by arguing that many twentieth-century Americans, including most who call themselves environmentalists, have forgotten what it means to know nature through work. As a result, they defend an ideal of nature that almost inevitably brings them into conflict with those who earn their living by working on the land.

In each of these instances, as in all the others I have discussed in this introduction, we see the many ways in which people disagree deeply about the meaning of nature. Perhaps the most important message of this book is that such disagreement is inevitable—one might even be tempted to say *natural*—given the universalizing tendencies that lie at the very core of this human construct called nature. The question “Whose nature?” again emerges as central. As soon as we project our values onto the world and begin to assert their primacy by calling them natural, we declare our unwill-

ingness to consider alternative values that in all likelihood are no less compelling for the people who hold them dear. Nature becomes our dogma, the wall we build around our own vision to protect it from competing views. And like all dogmas, it is the death of dialogue and self-criticism. This is its seductive power. This is the trap it has set for us.

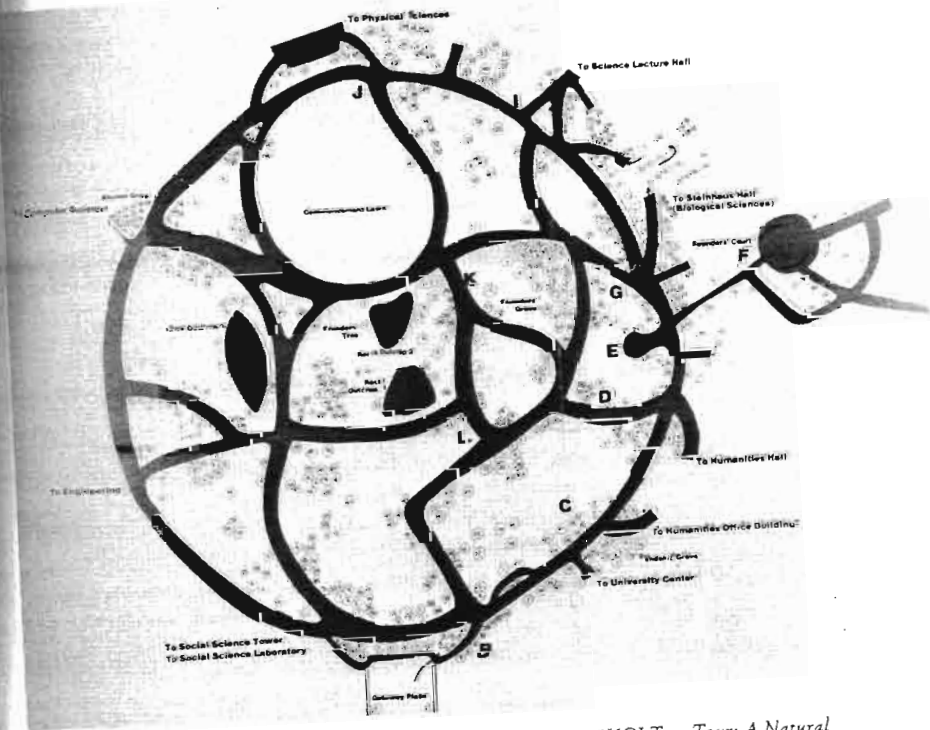
As we try to make sense of these many natures all claiming to be one, we would do well to stop hoping that any single one of them can ever finally triumph. Nature will *always* be contested terrain. We will never stop arguing about its meanings, because it is the very ground on which our debates must occur. This is *not* to say that all visions of nature are equally good, or that we can never persuade others that one of them is better, truer, fairer, more beautiful than another. It is simply to state that such persuasion will never occur if all we do is assert the naturalness of our own views. Tempting as it may be to play nature as a trump card in this way, it quickly becomes a self-defeating strategy: adversaries simply refuse to recognize each other's trump and then go off to play by themselves. This can often feel quite satisfying, since it reinforces our dogma and makes it that much easier to berate our enemies and celebrate our own moral superiority. But it is surely not a very promising path for trying to understand our differences. Without such understanding, the prospect for solving environmental problems, to say nothing of working toward a juster world for all the peoples and creatures of the earth, would seem very grim indeed.

And where is nature in all this? Does the world consist of nothing more than people disagreeing with each other about the meanings of words and values? Surely not. As Robert Harrison eloquently argues in the final essay of this book, it is the radical *otherness* of nature with which we have constantly to contend. The fact that it lies forever beyond the borders of our linguistic universe—that it does not talk back to us in a language we can easily understand—permits us to pretend that we know what it really is and to imagine we can capture its meaning with this very problematic word “nature.” And yet it is never so. Just when we think we have gotten our picture right, just when we think that Eden is once again ours, the alien other reasserts itself. The snails appear in the garden, the fires return to the chaparral, the ground quakes beneath our feet. The reality of nature is undeniable. The difficulty of capturing it with words—not even with the word “nature” itself—is in fact one of the most compelling proofs of its autonomy.

One last found object can perhaps speak for nature as a way of bringing this introduction to a close. The campus of the University of California at Irvine is built around a great circular green space called Aldrich Park. Like so many other features of Irvine, it is a carefully planned and constructed place. Its symbolic role on the campus is to offer a representation of nature—pastoral, parklike, Edenic—at the heart of the university. The planners' self-conscious goal, as the university now describes it, was for the campus landscape “to be both educational and aesthetic,” so Aldrich Park

has been planted as a kind of arboretum with dozens of different tree species representing natives from California as well as exotics from all over the world.²² If you like, you can pick up a map with every single tree marked and labeled to aid your botanizing. By examining where all these trees come from, and by thinking of the vast amount of human labor that has gone into rearranging this landscape, you will begin to understand just how artificial this natural green space really is.

The paths in the park have been carefully laid out to prevent people from traveling straight across it. They do so quite cleverly, inviting the walker in by means of a well-crafted optical illusion that makes it look as if they do go straight across; only after one is already committed to one's route is one permitted to see that the lines that at first seemed straight are in fact curved and broken. This forces anyone who needs to get to the other side of campus to proceed via a series of curvilinear walkways that frustrate every attempt to get to one's destination by the most efficient route. No doubt this is intended to remind visitors that mere efficiency is not the point of life. The



The park at the heart of the campus: an Irvine tree tour. ("UCI Tree Tour: A Natural History Walk in Aldrich Park," University of California at Irvine, 1990)

planners who designed this landscape are encouraging us—nay, forcing us for our own good—to slow down, become more meditative, and enjoy a brief respite in nature's greenery before getting back to work. I have to confess that I found these deceptive pathways rather irritating. Perhaps this irritation betokens my inability to shed my linear consciousness and appreciate nature in a more organic way, but I could not help seeing these paths as just one more example of the planners' ubiquitous efforts to control and manipulate my experience of their world, forcing me to conform to their sense of the proper way to appreciate this natural area they had constructed on my behalf. As a result, I usually ignored the designated walkways and tramped straight across the lawn.

Ironically, this obstinacy on my part meant that I did not get to the center of the park, where those curving paths were trying to lead me, until the very end of my time in Irvine. One morning, feeling frustrated by a problem I couldn't seem to solve in my essay for this book, I headed out across the park with no particular destination in mind, wandering the paths more or less at random as I brooded about my question. Even this was probably not what the planners had intended, since I was so lost in thought that I did not much notice the landscape through which I was passing until I suddenly realized I had come to a place I had never been before.

At the center of Aldrich Park are two rock outcrops, helpfully designated on the campus map as "Rock Outcrop 1" and "Rock Outcrop 2." Strikingly set off from the rest of the lawn by their stony appearance and the exotic pines that are planted around them, they form a kind of sacred grove where the designers clearly intended us to linger. Some of the rocks have been arranged to form a circular sitting area, and a wind chime hangs from one of the trees. Make no mistake about it: like everything else in Irvine, this is a carefully designed simulacrum of the nature we are meant to appreciate here. As the university's brochure explains, "Although the rock outcrops are natural features of the area, they were not always as prominent a part of the landscape. Initially they were partially buried, lichen-covered outcroppings. Additional area was exposed using fire hoses and high pressure jets of water to allow a larger area for planting succulents."²³ African irises and various aloes have been the beneficiaries of this artifice.

But as I stopped before the outcrops and realized that I had somehow never seen them before, it didn't matter to me that the succulents had been imported from afar and that, for all I knew, the rocks had been moved here by a bulldozer. The stone itself was strikingly beautiful, and it gave me the seat I needed to meditate on. So I sat down on Rock Outcrop 1 and stayed there for half an hour. The air was cool and the sky hazy, and as a bird called quietly from one of the pines, I found my mind moving back and forth between the thoughts in my own head and the landscape around me. Because the problem I was trying to solve had something to do with wilderness, I ran my hand over the outcrop and meditated, as the planners no doubt intended I should do, about the meaning of the stone and my rela-

tionship to it. No epiphany occurred, and I certainly did not experience any mystical flash of enlightenment. Still, it was a beautiful moment in a lovely place, and I left with a much clearer sense of where I was going and what I wanted to say.

Rock Outcrop 1 could hardly be more cultural a construction. Exposed to view by powerful jets of water, planted with exotic species, cast in the form of a shrine, surrounded by a pastoral park, and embedded in a community whose every feature has been planned down to the smallest detail—what could be less natural? Furthermore, the meditative moment I experienced in the quiet of that glade was itself a culturally constructed act I had learned from a long line of romantic and pastoral poets: Henry David Thoreau and William Wordsworth had helped teach me what I was supposed to do and feel on that rock. After everything I have said here, I will not be so foolish as to assert that my feelings there were either natural or universal. My thoughts that morning were surely different from those of many other people I can imagine visiting the place. I'm sure, for instance, that the landscape architects who made it the centerpiece of their creation experience it very differently from me, no doubt feeling a professional pride of authorship when they sit amid these trees and having a much more comprehensive sense of how the outcrop fits into their overall design for the campus: like so many other planners, they command the bird's-eye view. I suspect that the construction workers who labored to make this land seem natural feel a different kind of authorship in relation to it, especially since many of them probably do not regard this as the sort of place to which they themselves would make regular pilgrimages. The Mexican American gardeners who tend the aloes on these rocks surely have a far more physical relationship to this soil than I do, and probably have rather ambivalent feelings about privileged walkers like myself who can choose at any time we wish to enjoy a few moments of idle leisure amid their handiwork. Even the university people who regularly come here no doubt have very different ways of seeing it: I'm sure that members of the geology department, for instance, experience it in ways quite unlike the ways in which members of the English department experience it. It is easy enough to see that for students this secluded spot tends to serve as an evening rendezvous for lovers, whose admiration for the nature they find here is no doubt earthier than my own. What each of us finds here, in other words, is not One Universal Nature but the many different natures that our cultures and histories have taught us to look for and find.

And yet the rock remains, as do the trees and the birds, the wind and the sky. They are first and foremost themselves, despite the many meanings we discover in them. We may move them around and impose our designs upon them. We may do our best to make them bend to our wills. But in the end they remain inscrutable, artifacts of a world we did not make whose meaning for themselves we can never finally know. Acknowledging their autonomy and otherness does not spare us the task of trying to make human

sense of what they seem to tell us. It does not prevent us from making false assumptions about them, nor does it make any clearer what obligations we owe them. We will argue about such things forever, and the arguments will not vanish just because we appeal to nature to defend our case. But if we listen closely, we human beings can learn a great deal from the tales we tell of such a place. This silent rock, this nature about which we argue so much, is also among the most important things we have in common. That is why we care so much about it. It is, paradoxically, the uncommon ground we cannot help but share.

A L B U M

UNNATURAL NATURE

Our favorite found object, the one to which our conversations kept returning and from which we learned the most, was the Rocky Mountain Arsenal in Denver, Colorado. Constructed during World War II for the manufacture of chemical weapons, it served that purpose for nearly forty years before being abandoned. It soon emerged as one of the most toxic waste sites in the nation—and one of the richest wildlife refuges in the West. It has been called “The Nation’s Most Ironic Nature Park,” and its paradoxical juxtapositions of toxicity and wilderness raise all sorts of interesting questions about what people mean when they use words like “natural” and “unnatural” to apply to such a place. The texts that follow consist of excerpts from the 1991 scenic wall calendar that the arsenal distributed to members of the public, as well as clippings from the *Denver Post*.