

NATURAL AND UNNATURAL; WILD AND CULTURAL

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ABSTRACT.—Yellowstone National Park's mission and policy can be clarified by analysis of the natural and the unnatural. *Nature* is a comprehensive word, in some uses excluding nothing; more useful is a contrast distinguishing *nature* and *culture*. Specifying "wild nature" denotes spontaneous nature absent human influence. Critics claim that the meaning of wild nature, especially of wilderness, is a foil of culture. Pristine nature, often romanticized, is contrasted with a technological and industrial culture. By this account, wilderness is a social construction.

Nevertheless, wild nature successfully denotes, outside culture, an evolutionary and ecological natural history, which remains present on the Yellowstone landscape, jeopardized by numerous human influences, including the invasions of exotic species. Natural processes have returned in the past, as when Native Americans left the landscape. Natural processes can be preserved today, because of, rather than in spite of, park management. Over much of the North American landscape nature is managed and at an end. Yellowstone provides an opportunity to encounter and to conserve "untrammelled" nature as an end in itself, past, present, and future.

Key words: nature, natural, wild, pristine, wilderness, culture, management, exotics.

1. NATURE AND CULTURE

In one sense, *nature* is quite a grand word, referring to everything. *Natura* or *physis* is the source from which all springs forth. If one is a metaphysical naturalist, then nature is all that there is. The contrast class might be the supernatural, which, they may argue, is an empty set. Humans are generated within nature and they break no natural laws. Everything agricultural, technological, industrial, or economic will, on this meaning, be completely natural. So will everything humans have done, whether intentionally or accidentally, by way of moving animals and plants around, as with exotics and invasive species. So will all park management.

Baird Callicott says, provocatively: "We are therefore a part of nature, not set apart from it. Chicago is no less a phenomenon of nature than is the Great Barrier Reef." Or Yellowstone. Callicott wants to cure us from mistakenly supposing a "sharp dichotomy between man and nature" (1992:16-17). Such scope is problematic, however, because it allows no useful contrast with culture; but we need that contrast carefully analyzed if humans are going to relate their cultures to nature. We need a more restricted definition, one that can enable us to separate Chicago from Yellowstone.

A straightforward contrast is *culture*. If I am hiking across the Lamar Valley, the birds and their nests are natural; but if I come upon an abandoned boot, this is unnatural. Expanding this into a metaphor, the whole of civilization is mind and hand producing artifacts in contrast to the products of wild, spontaneous nature. Wild animals, much less plants, do not form cumulative transmissible cultures, elaborating such artifacts over generations.

Humans evolved out of nature; our biochemistries are natural. We too have genes and inborn traits. But human life is radically different from that in wild nature. Unlike coyotes or bats, humans are not just what they are by nature; we come into the world by nature quite unfinished and become what we become by culture. Humans deliberately rebuild the wild environment. They also deliberately set out to conserve some wild places, as with Yellowstone, protected by an act of Congress.

Information in nature travels intergenerationally on genes; information in culture travels neurally as persons are educated into transmissible cultures. They learn how to build fires, or make spears, or make iron plows and grow wheat. Humans argue about worldviews, about whether there should be wildlands as well as wheatlands in Wyoming. The determinants of

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animal and plant behavior are never anthropological, political, economic, scientific, philosophical, ethical, or religious.

Any transmissible culture, and especially a high-technology culture, needs to be discriminated from nature. Boeing jets fly, as wild geese fly, using the laws of aerodynamics. The flight of wild geese is impressive. The information storage system in goose genetics could, in its own way, be the equal of that by which Boeings fly. Some of the information in the geese is transmitted nongenetically, as when they learn migration routes by following other geese. But geese do not form cumulative transmissible cultures.

It is only philosophical confusion to remark that both geese in flight, landing on Yellowstone Lake, and humans in flight, landing at O'Hare in Chicago, are equally natural, and let it go at that. No interesting philosophical analysis is being done until there is insightful distinction into the differences between the ways humans fly in their engineered, financed jets and the ways geese fly with their genetically constructed, metabolically powered wings. Geese fly naturally; humans fly in artifacts.

2. NATURE AND WILDNESS

Nature goes back to Latin and Greek roots for "giving birth" or "springing forth," roots that survive in *pregnant*, *genesis*, and *native*. We also have the word *wild*, placed as an adjective to nature. With this significant modifier, some perspectives shift. We wish to make it abundantly clear that we are referring to a world outside the human sector. There is spontaneous nature in humans, as when we digest food. There is human nature, as when parents care for children. In contrast there is wild nature, elemental and spontaneous, with humans out of the picture. The word *wild* is already present in Old Teutonic, the precursor of English, before 450 A.D., and means "not domesticated" or "not cultivated." The word *wilderness* is found in Old and Middle English and means "land not farmed or settled," "land in its natural state" (Chipeniuk 1991).

But, comes a protest, etymologies develop and the meaning of wild is obtained by contrasting it with its foil, culture. Maybe we use a word with a thousand-year history, but we use it in the framework of a modern perspective,

one that comes out of Western science and a high-tech culture. This can be seen even more clearly when wild is loaded into our concept of wilderness. Non-Western peoples typically do not have the word *wilderness* in their vocabulary, and even some Western languages (like Spanish) do not have such a word.

Wilderness was once untamed, uncivil nature, nature cursed after the fall of Adam, savage nature beyond the "frontier" which it was the American/European manifest destiny to conquer. Only with the Romantic movement, and still more recently with the modern wilderness movement, did the current concept of wilderness arise, a pristine realm unspoiled by humans. Some of that was initiated in Yellowstone when Americans, busy taming the frontier, paused to wonder whether they might not better save at least this region of wild nature. A century later that ideal continues, as official policy: "The primary purpose of the National Park Service in administering natural areas is to maintain an area's ecosystem in as nearly pristine a condition as possible" (Houston 1971).

But thereby we create a myth, these critics say. Nature-wild is just one way we choose to see nature, especially when we are on vacation in Yellowstone. Wilderness so imagined is a foil for our American culture, a romanticized Garden of Eden. Wilderness enthusiasts have a kind of archetypal, archaic longing for a world with no people in it, imagining it as pristine and pure.

David Lowenthal says: "The wilderness is not, in fact, a type of landscape at all, but a congeries of feelings about man and nature of varying import to different epochs, cultures, and individuals" (1964:36). David Graber explains:

Wilderness has taken on connotations, and mythology, that specifically reflect latter-twentieth-century values of a distinctive Anglo-American bent. It now functions to provide solitude and counterpoint to technological society in a landscape that is *managed* to reveal as few traces of the passage of other humans as possible. . . . This wilderness is a social construct (1995:124).

Roderick Nash, tracing the history of *Wilderness and the American Mind*, reaches a startling conclusion: "Wilderness does not exist. It never has. It is a feeling about a place. . . ."

Wilderness is a state of mind" (1979). "Civilization created wilderness" (1982:xiii). Wilderness is a myth of the urbane, mostly urban, mind. Wilderness is a filter-word with which we color the nature we see. Wild is as much construct as West.

Or so they say. But the trouble is that such critics have so focused on *wild* as a word taken up and glamorized in the term *wilderness*, that they can no longer see that wild and wilderness do have reference outside our culture. It cannot count against wilderness having a successful reference that some earlier peoples did not have the word. Yes, wilderness is, in one sense, a 20th-century construct, as also are Krebs cycle, DNA, photosynthesis, and plate tectonics. None of these terms were in prescientific vocabularies. Nevertheless, these constructs of the mind enable us to detect what is not in the human mind.

Civilization creates wilderness? Lately yes, originally no. More specifically, the U.S. Congress, acting for its citizens, designates wilderness. That is a legislative meaning of create, not the biological meaning. Wilderness created itself, long before civilization; everybody knows that and it is only setting up conundrums to exclaim, "Civilization created wilderness." Wilderness a state of mind? Wilderness is what there was before there were states of mind.

It ought not to be that difficult for Lowenthal, a geographer, to distinguish between the wilderness idea, which has its vicissitudes in human minds, and wilderness out there, wild nature absent humans. A "congeries of feelings of varying import to various individuals in various epochs" is not any Yellowstone wilderness worth saving. With more denotation with the connotation, there is plenty of surviving objective reference in the word.

We need then to identify what it is in nature to which we so refer. *Wild* gets at those levels in nature where there is mixed stability and spontaneity, creative processes in conflict and resolution. There is a mixture of order and chaos. The reference is not ordinarily to molecular or atomic scales. We do not usually think of a single carbon atom as being wild, nor do we describe crystal structures as being wild. Crystal structures are too orderly. *Wild* retains some of the "uncontrolled" or "unlawful" or "spontaneously autonomous" elements. Originally, the reference is to nature outside human

plan and control. But within that domain, the reference continues to nature outside simple lawlike patterns. We do not control these events; neither are they completely controlled naturally. There needs to be more complexity; the complexity needs to have broken symmetries.

Geomorphological and climatological processes qualify better than simple physical and chemical ones. There need not be living things. Antarctica is wild. We probably think of a moonscape as being wild; rocks and debris are scattered there; meteors have left their impact. But eclipses of the moon can be predicted to within microseconds for centuries ahead; the clockwork regularity overwhelms the spontaneity. The process is too automatic to catch what we mean by wild. *Mechanical* is not a synonym for wild. *Wild* needs more evident autopoiesis, more turbulence and ferment.

In biology the negentropic tendencies are there working against the entropic tendencies, generating and testing new possibilities. We are inclined to think genetics more wild than crystallography, although they are equal processes in spontaneous nature. Many processes may be determinate, but there will be the intersection of causally unrelated lines, producing novelty and unpredicted events. Individual events rattle around in the statistics. Recent science accentuates genuine contingency, openness mixed with determinate laws. The result, on landscape scales, is idiographic places, beyond lawlike regularity. Yellowstone is not celebrated as a place where the laws of gravity are obeyed unexceptionally, or because meiosis, mitosis, and photosynthesis take place predictably there, as they do everywhere else. Yellowstone is celebrated because it is like no place else on Earth, no place else in the universe.

3. EXOTICS AND INVASIVES

On such wild landscapes, we also find *exotics*, with the root meaning "from the outside." *Exotic* too is an interesting word, especially because of its alternative meanings. On the one hand, the usual meaning is "intriguing," "charming," "beautiful" because unfamiliar. When one visits botanical gardens, one searches out the exotics. But the Yellowstone meaning is "foreign," "invasive." When one visits Yellowstone, one despises the exotics. Exotics reduce the wildness on the landscape.

But why so? You can still have the unpredictability, the contingency, and the spontaneity when exotics are introduced. Which exotics end up where is as patchy as the mosaics on natural landscapes. Conflict and resolution are still taking place when purple loosestrife invades a pond. If a vacant lot in a city is abandoned, weeds take over. Has not the lot gone wild? Maybe Yellowstone has had some exotics dumped into it; but the new plants are on their own. They do their thing, beyond human control. They might even increase biodiversity, although exotics typically displace native vegetation and are, after habitat destruction, the biggest cause of biodiversity loss in the United States (Enserink 1999).

Yes, but now the wildness is reduced. The temporal continuity with the evolutionary past is broken. The area is less pristine. Perhaps wildness can eventually return. But meanwhile the exotics are making the place unnatural. The invasives are not adapted fits, having evolved on other landscapes and been transported here anomalously. Invasive means "entering by an unlawful force." These plants and animals have not entered these ecosystems by any of the lawlike natural processes that, in the wild, govern community structure. They are, we might say, feral. Feral does not mean "wild."

Exotics do not contribute to what Aldo Leopold called the "integrity, stability, and beauty of the biotic community" (1968:224-225). Charles Elton recognized this, half a century ago: "We are living in a period of the world's history when the mingling of thousands of kinds of organisms from different parts of the world is setting up terrific dislocations in nature" (1958:18). These exotics are, we might say, weeds. But the word *weeds* now has an atypical sense, since these plants are not out of place, undesired, in our cultivated garden. These plants are misplaced in the wild.

Exotics typically grow well in disturbed soil, and humans disturb enormous amounts of soil. So exotics are waifs of culture. One might expect, however, that exotics will fail in wild ecosystems, since they are not good adapted fits. And that is often so. The invasives often linger around culture, on roadsides, in fence rows. One does not find them deep in the wildlands—at least not at first. But there is disturbed soil in nature as well as in culture, and these plants can gradually invade native

places, as they have in Yellowstone. Say, if you like, that they did so competitively; it is equally true that they did so by assistance of boat and plow.

We can take *weed* as a metaphor for the whole. One doesn't want a weedy landscape. Initially this means a landscape where fields and pastures are full of weeds that we dislike. Later it means a landscape where wild nature has been invaded with exotics. One doesn't want a garden with weeds. One doesn't want a national park, a natural park, with weeds. On a small scale, relatively, Yellowstone becomes the park of weeds, rather than an evolutionary ecosystem. On a larger scale, Earth becomes a weedy planet, rather than a biosphere.

Yes, comes a reply, but these weeds are invasive and competitive, now on their own, even if once brought to their new locations by human transport. They are like everything else wild, except that they manage to exploit humans and their activities, and to live, wildly, in the nooks and crannies of civilization. When humans set aside wild sanctuaries and parks on the periphery of their civilization, these exotics are poised, ready to test their coping skills in these pockets of wildness in the midst of civilization. Stickseeds evolved to catch on animal fur, but if several seeds catch instead on a hiker's britches and then are dislodged half a mile down the trail, the resulting seedlings do not know whether they were carried by animal or by human; it does not matter. Admire them for their aggressive success; that is what natural selection is all about, ongoing now despite human interference.

It may matter, however, when the britches are carried by jet plane to a different continent, where the sprouting seeds will not have evolved as an adapted fit in the radically different ecosystem they come now to inhabit. Once hemmed in by oceans, these plants play hopscotch because of human travel. These exotics are foreigners, spillovers from civilization. They are like the foreign viruses that land in New York or Los Angeles and upset human health in cities, except that, instead, these upset the health of the land.

Plants do move around on their own. They invade new areas, as when climates change; and one can, if one wishes, speak of naturally invasive species. In prehistoric times, with melting ice, species moved north variously from 200 to

1500 meters per year, as revealed by fossil pollen analysis. Spruce invaded what previously was tundra. Today, most exotic species are introductions that crossed oceans by boat or by air, thousands of times faster than any natural plant movements. Most are rapidly propagating species that arrived in North America within the last 2 centuries. Once on site, exotic species invade typically at a rate of 10 kilometers per year, up to 50 times as fast as the slower natural rates, and upwards of 7 times more than even the faster natural rates. Worse, present and predicted Yellowstone environments will favor exotic species that can shift ranges of latitude, longitude, and elevation at 40-50 times faster than anything observed in the fossil record (Whitlock and Millspaugh 2001).

One way to see the problem is to take *exotic* for a local symbol of ongoing global events. Look forward a century. Michael Soulé says:

In 2100, entire biotas will have been assembled from (1) remnant and reintroduced natives, (2) partly or completely engineered species, and (3) introduced (exotic) species. The term *natural* will disappear from our working vocabulary. The term is already meaningless in most parts of the world because anthropogenic [activities] have been changing the physical and biological environment for centuries, if not millennia (1989:301).

That forces us to ask whether we want an entirely managed nature, where humans engineer and assemble the biotas, or disassemble them by ignorance and accident, a landscape where nature has come to an end.

4. PRISTINE NATURE

These lines of argument converge with the claim that the quest for pristine nature is a hopeless quest, whether past, present, or future. Humans are always around, Europeans now and earlier the Native Americans. Humans are the real "exotics!" On every continent except Africa, humans are foreigners out of place, and everywhere, Africa included, they have long since displaced the native vegetation.

Just what wild nature was present in the Americas before the Native Americans arrived 15,000 years ago cannot be known. Even if it could be known, that was Pleistocene nature, Climates have since changed; and nature today,

had it been left on its own, would be vastly different from any Pleistocene nature. So the quest for pristine nature out of the past is a hopeless quest—so that argument goes. All we have, or have ever had, is a dynamically changing nature occupied by humans.

The quest for pristine nature today is even more hopeless—and now the argument takes a new turn. The very idea of some humanless nature separates humans from nature, falsely. We have contaminated every landscape we observe, if not by our hands with our tools, then by our minds with our cultural baggage. Edwin Dobb summarizes this view:

Any definition of nature that excludes people and their works has always been indefensible, as has any definition of humanity that excludes nature. Wherever we stand, in the Gila Wilderness or in Times Square, we stand at the intersection of nature and culture (1992:46).

By this logic, both Yellowstone and Times Square are intersecting nature and culture. At Times Square modern Americans intersect nature, having rebuilt it dramatically there. In Yellowstone, too, first the Native Americans intersected nature on their hunts, and today the tourists intersect nature as place of vacation. No human ever knows any nature without intersecting with it.

But this is indiscriminate. Nature, as it existed for millennia before people and their works arrived, is quite a defensible definition of nature. When "we" stand in the Gila or the Absaroka Wilderness, there is an intersection of the nature I behold and the cultural education with which I behold it. But when I am no longer standing there, there is a Gila and an Absaroka Wilderness in which people and their works are, if not entirely absent, insignificant on the landscape beheld. Experiencing the Gila Wilderness, Dobb reconsiders: "There is something that lies beyond the reach of culture" (1992:50). To fail to discriminate between the relative proportions of nature and culture in the Gila Wilderness and in Times Square only glosses over important issues about which we are concerned both in understanding our human place in nature and in our responsibilities for its conservation.

Sometimes one encounters the objection that the slightest human intervention has a sort of totalizing effect and brings straightway

the end of nature. This is like saying that the whole moon is pristine no more because the astronauts took a few steps on it, or that the sky is not natural because some jet planes have flown through it. Or that the Absaroka Wilderness is not natural because some aborigines traveled through it once and some backpackers hike there today.

Is it the case that we have lost any possibility of letting Yellowstone be natural? In an absolute sense this is true, since there is no square foot on which humans have not disturbed the predation pressures, nor any on which rain falls without detectable pollutants. But it does not follow that nature has absolutely ended, because it is not absolutely present. Answers come in degrees, with Times Square on one end of a spectrum and the Absaroka Wilderness on another. Events in Yellowstone can remain 99.44% natural on many a square foot, indeed on hundreds of square miles. We can restore nature. We can put the wolves back and clean up the air, and we have recently done both. Wilderness can return. Pristine nature is relatively present in the sense (recalling the language of the Wilderness Act) that the dominant ecosystem processes are substantially "untrammelled by man."

This presumes that Yellowstone was wild before the Europeans arrived. But that, it may be protested, underestimates how much Native Americans had already transformed the American landscape. J. Baird Callicott claims:

Upon the eve of the European landfall, most of temperate North America was not . . . in a wilderness condition—not undominated by the works of man. . . . Most of temperate North America was managed actively by its aboriginal human inhabitants. In addition to domesticating and cultivating an extraordinarily wide range of food and medicine plants, native North Americans managed the continent's forest and savannah communities, principally with fire. . . . The European immigrants, in fact, found a man-made landscape, but they thought it was a wilderness because it didn't look like the man-made landscape that they had left behind (1991: 241).

So pristine nature is a bad idea, because there isn't any.

Whether this is so is, in part, an ecological question whether ecosystems were so thrown out of balance that no wild nature remained.

In part, this is an anthropological question concerning the practices of the pre-Columbian peoples. The question is to be answered by historical records, so far as these exist, and by scientific analysis of the extent of altered ecosystems. Philosophers have no particular competence here about the empirical facts, but they can analyze how these facts are incorporated into arguments to see whether the conclusions reached plausibly follow.

Neither the Wilderness Act nor meaningful wilderness designation requires that no humans have ever been present, only that any such peoples have left the lands "untrammelled." The land yet "retains its primeval character and influence." Paul Schullery, a recognized Yellowstone authority, first answers the question this way: Yellowstone's "discovery" by whites followed 10,000 years of occupation and use by Native Americans, and the Native Americans were "very aggressive land managers." But he goes on to quote Philetus Norris, the park's 2nd superintendent and an archaeologist, who noticed how rapidly the Indian remains faded away, concluding that "these Indians have left fewer enduring evidences of their occupancy than the beaver, badger, and other animals on which they subsisted." Schullery adds, "In a sense, he was right" (1997:11-12). The Indian presence was not that exotic; it has faded away and nature has returned.

The only Indian practice that might have extensively modified the Yellowstone landscape is fire. Fire is also quite natural. Forests in the Americas have been fire adapted for at least 13 million years, since the Miocene Epoch of the Tertiary Period, as evidenced by fossil charcoal deposits. The fire process involves fuel buildup over decades, ignition, and subsequent burning for days or weeks; any or all of the 3 may be natural or unnatural. Fire suppression is unnatural and can result in unnatural fuel buildup, but no one argues that the Indians used that as a management tool, nor did they have much capacity for suppression. The argument is that they deliberately set fires. Does this make their fires radically different from natural fires?

It does in terms of the source of ignition; the one is a result of environmental policy deliberation, the other of a lightning bolt. But students of fire behavior realize that in dealing with forest ecosystems on regional scales, the

source of ignition is not a particularly critical factor. Once the fire has burned 100 yards, the vegetation cannot tell what the source of ignition was. The question is whether the forest is ready to burn, whether there is sufficient ground fuel to sustain the fire, whether the trees are diseased, how much duff there is, and so on. If conditions are not right, it will be difficult to get a big fire going; it will soon burn out. If conditions are right, a human can start a regional fire this year. If not, lightning will start it next year, or the year after that.

In forests natural ignition sources are available on an order of magnitude (a few years) that greatly exceeds the order of magnitude of fuel buildup for burning (several decades). A. Starker Leopold put it this way:

If the area is ready to burn, it makes little difference . . . whether the fire is set by lightning, by an Indian, or by [a park scientist], . . . so long as the result approximates the goal of perpetuating a natural community" (quoted in Lotan et al. 1985:65).

It is difficult to make the case that Native American fires in Yellowstone, centuries ago, so dramatically and irreversibly altered the natural fire regime that it is impossible to find meaningful wildness there today.

Most of what we think of today in the United States as pristine nature, much of that which we have designated as wilderness areas or parks, was infrequently used by the aborigines, since such areas are often high, cold, arid mountains or canyonlands difficult to traverse on foot. There the Indians were seasonal or transient hunters—for the same reasons that the whites after them left those regions sparsely settled. In places such as Yellowstone, the Native Americans were "visitors who did not remain."

Just what did these Native Americans do to manage the Grand Canyon, or Mount Rainier? Or Yellowstone or, for that matter, the Great Smoky Mountains? Or regional wetlands such as the Everglades? Is there any designated wilderness in which, on regional scales, the fundamental ecosystemic processes today are recognizably different from what they would have been had there been no Native Americans? That is a question for scientists to answer, not philosophers. But, having posed that question repeatedly to various ecologists, I have not yet identified such an ecosystem.

5. MANAGED NATURE AND NATURE AT AN END?

But now my critics will retort: You are suffering from double illusion. Not only are you deceived about the past; you are deceived about the present. Even though the public still equates national parks with primordial, untouched wilderness, the reality is considerably different. The very appearance and design of national parks is based on social conventions, for example, aesthetic and political ideologies, that allow "land" to become "landscape." Ethan Carr claims:

The designed landscapes in national and state parks, as works of art, directly express the value society invests in preserving and appreciating natural areas. Few other arts, with the exception of landscape painting, more fully explore this leitmotif of American culture. Neither pure wilderness nor mere artifact, the national park is the purest manifestation of the peculiarly American genius which sought to reconcile a people obsessed with progress with the unmatched price paid for that advance: the near total loss of the North American wilderness (1998:9).

We hire forest managers and park interpreters to teach us about nature in contrast to culture. But the nature-in-contrast-with-culture view is the epitome of social constructs, made in a self-consciously technological society. In reality, there is no nature-culture dualism; this is an artifact of the eyeglasses Westerners wear when they look at nature.

One way to ask whether what we see in Yellowstone is what our managers teach us to see, this recently constructed American nature-other-than-culture, is to ask: Is this National Park Service distinction between nature and culture only Western and modern? Or is some such distinction transcultural?

In a 12th-century poem, *The Owl and the Nightingale*, the poet remarks, "Their land . . . isn't civilized, rather it is a wilderness (*wildernisse*)" (Dickins and Wilson 1951:54, line 95). In Greece, Plato claims this as "the wisest of all doctrines: that all things do become, have become, and will become, some by nature, some by art, and some by chance" (Laws, 10.888). In the Bible the Hebrews regularly distinguish between their own activities and those of wild nature, especially in Job and the Psalms. The word *wilderness* occurs over 300

times in the Bible. The Chinese anciently distinguished between nature and culture, a distinction found in the Analects of Confucius.

In fact, in an etymological study of the word *nature*, C.S. Lewis concludes:

This, as it is one of the oldest, is one of the hardest senses of *nature* or *natural*. The nature of anything, its original, innate character, its spontaneous behaviour, can be contrasted with what it is made to be or do by some external agency. A yew-tree is *natural* before the topiartist has carved it. . . . This distinction between the uninterfered with and the interfered with . . . [is] very primitive. . . . What keeps the contrast alive . . . is the daily experience of men as practical, not speculative beings, [such as] the antithesis between unreclaimed land and the cleared, drained, fenced, ploughed, sown, and weeded field (1967:45).

Every culture can, to some extent, see beyond itself to a spontaneous nature, unaffected by human agency. The very idea of culture, in any form, has the sense of cultivation, of taking oversight, direction, and control of a found natural process to redirect it. That contrast is found wherever there are people with minds and hands who act on the world to alter it, revising the course of events that might naturally have taken place.

Now it seems that the main idea in nature is that the natural is not a human construct. Intentional, ideological construction is exactly what natural entities do not have; if they had it, they would be artifacts. The main idea in nature is that nature is not our idea. If so, why cannot Yellowstone park interpreters, contrary to Carr's claim, so "design" the visitor's experience as to facilitate the discovery of nature in, with, and under culture, of pristine nature yet present on this relatively wild landscape?

Maybe there can be some reasonable illusion of a once primitive nature in Yellowstone, like a museum piece on the landscape. But now a new protest arises. This is backward looking, because such landscapes are vanishing. Agreeing with Michael Soulé, only now enthusiastically endorsing the changes, Daniel Botkin says: "Nature in the twenty-first century will be a nature that we make. . . . We have the power to mold nature into what we want it to be" (1990:192-193). Of course he, like many others, urges us "to manage nature wisely and prudently"; and, to that end, ecology can

"instrument the cockpit of the biosphere" (1990:200-201). That sounds like high-tech engineering which brings wild nature under our control, remolding it into an airplane that we fly where we please.

So, it does seem possible to end nature by transforming it into something humanized. This has already been taking place, and the future promises more, at an escalating pace. Over great stretches of Earth, wild nature already has been or likely will be diminished in favor of civilization. Wild nature will never again be the dominant determinant of what takes place on inhabited landscapes.

What is the role of Yellowstone in such a century of managed nature? Perhaps, the park interpreters are looking backward, nostalgic about a past that we really no longer have. Yellowstone is quaint: a tiny corner of a continental landscape mostly managed for multiple uses, this little bit being intentionally managed to create an illusion of wild nature. But really, nature is at an end, as the rest of the landscape demonstrates. There is evidence for this even in the park. Those exotics prove that all we can have is nature modified by the human presence. Even if we set policy to remove the exotics, we will still, for all that, have managed nature, in this case, managed to minimize the exotics. The final philosophical lesson is that wild nature is gone; the new millennium is one of humans managing the Earth.

But for Yellowstone to accept such museum status would be a great mistake. Why? Because nature is always still present and potentially active. Natural forces will flush out many human effects, similarly to the way in which natural effects themselves also are often washed out. Indeed, some human impacts on nature are quite ephemeral. Hiking through a forest after a snow, one leaves Vibram sole bootprints, which are unnatural artifacts contrasted with the tracks of the rabbits. But the snow soon melts, and both sets of tracks are gone.

Humans intervene; but, withdraw the humans, and natural forces return and obliterate the human effects. Wagon tracks of the pioneers in the American West remain, in some locations, a century and a half later. But nature heals these scars; nature comes back. "As for man, his days are like grass; he flourishes like a flower of the field; for the wind passes over it, and it is gone, and its place knows it no more" (Psalm 103.15). These

ancient words come to mind when one is standing at the last traces of a pioneer homestead, long since abandoned, and now so reclaimed by nature that, were it not for a few rocks from the collapsed chimney, it would be difficult to tell where the house stood. One sometimes wishes to pack out the trash; but, in other moods, there is something moving about leaving the old cans and watching what nature does with them. Here we need for ourselves the lesson we learned about the Native Americans. When Europeans too draw back, nature comes back, perpetually present. Yellowstone interpreters need to teach that, not that nature was once upon a time here and is now gone.

6. YELLOWSTONE NATURE AS AN END IN ITSELF

Nature neither is, nor ought to be, ended. Rather, humans can and ought to make nature an end in itself, complementary to their own human ends. We do not want entirely to transform the natural into the cultural, nor do we want entirely to blend the cultural into the natural. Neither realm ought to be reduced to, or homogenized with, the other. Otherness is not, ipso facto, a bad thing. We do not want a humanized nature, shore to shore, ocean to ocean, pole to pole. Humanizing it all does not make us a part of it; rather, the dominant species becomes still more dominant by managing all. That, ipso facto, sets us apart: the one species that manages the place.

Rather, we humans, dominant though we are, want to be a part of something bigger; and this we can only do by sometimes drawing back to let others be. This we do precisely by recognizing the otherness of wildness, by setting aside places such as Yellowstone as sanctuaries and wilderness where we will not remain, which we will not trammel. Insisting on being part of everything, even wilderness, separates us out just because nothing else on earth so insists.

Wildness is a place where humanity is absent, not completely, but nearly enough to allow independence. Humans need to see their lives in a larger context, as embedded in, surrounded by, evolved out of a sphere of natural creativity that is bigger than we are. Humans who cannot do this never know who they are and where they are; they live under

some other and inadequate mythology. In that sense, it is important that this nature is independent of humans. Setting aside wild places, fauna and flora, as ends in themselves will do two good things. It will respect the intrinsic value in such pristine nature. It will conserve places on the planet where humans, when they visit there, can experience their lives in this larger context. Either of these benefits is sufficient reason for saving nature as an end in itself.

Yes, there is a sense in which Yellowstone Park, so designated by the U.S. Congress, is an artifact of American culture. Perhaps it is necessary to manage Yellowstone so as to restore wildness, for instance, to minimize or remove the exotics. But we ought not to be so easily led to think there is no wild nature on the Yellowstone landscape, yes, even pristine nature. That is what tourists come to Yellowstone to see. Make Yellowstone, as it was founded to be, "a pleasuring-ground for the benefit and enjoyment of the people" (U.S. Congress 1872). Better still, let this be a place where people encounter wild nature and take pleasure in it. Teach them that nature is the ground of culture, that culture transcends nature, that humans emerge from nature. But teach them too that nature is a womb that humans never entirely leave.

Nature can do much without culture—the several billion years of evolutionary history are proof of that. Culture, appearing late in natural history, can do nothing without nature as its ground. To use a word in some disfavor, in this *foundational* sense, nature is the given. To take a favored word and turn it on its head, rather than culture *constituting* nature, nature here is *constitutional* for culture. No culture can ever be independent of nature. Culture will always have to be constructed (constituted) out of nature.

Let Yellowstone teach, in conclusion, that nature is forever lingering around. There is a sense in which nature has not ended and never will. Humans depend on nature for their life support. Humans use nature resourcefully, modifying and rebuilding it in their cultures. Humans stave off natural forces, but the natural forces can and will return, if one takes away the humans. Let Yellowstone be the place that Americans can forever encounter once and future nature.

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