

*The*

EDITED BY

*Wilderness*

MICHAEL P. NELSON

*Debate*

AND

*Rages*

J. BAIRD CALLICOTT

*On*

Continuing the Great New Wilderness Debate

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epistemic relativism—beliefs are not immutable or universal, but relative to the locations and time of their production. In the words of Phil Macnaghten and John Urry, “there is no single ‘nature,’ only natures. And these natures are not inherent in the physical world but discursively constructed through economic, political and cultural processes.”<sup>2</sup>

This paper is a critique of the postmodern constructivist view of nature. As Ian Hacking has noted, a host of things and ideas have been argued to be socially constructed—from “gender” and “literacy,” to “quarks” and “reality.” Constructivism comprises a large and heterogeneous body of literature. My aim, here, is not to take on postmodern constructivism *tout court*, but specifically to critique its application to “nature” and “wilderness.” By “postmodern constructivism,” I characterize literature that evinces the following themes: an emphasis on cultural ideas, narratives, power constellations, politics, and the like as primary driving forces behind the establishment of knowledge; the repudiation that there exist foundations to knowledge that transcend socio-historical contexts; an epistemic predilection for the relativization and pluralization of “knowledge”—stressing their contingency and diversity; and skepticism toward “canonical knowledge” and/or “master narrative.”<sup>3</sup>

While at face value the idea that knowledge is socio-historically situated seems trivially true, probing into the assumptions and repercussions of the “social construction of nature” reveals it to be intellectually narrow and politically unpalatable. Despite a predilection for uncovering the sociocultural roots of representations, constructivists about “nature” and “wilderness” do not deconstruct their own rhetoric and underlying assumptions to consider what fuels the credibility social constructivism musters as a “knowledge/power configuration.”<sup>4</sup> I argue that recent applications of social constructivism to environment-related issues reflect the recalcitrance of anthropocentrism and buttress the drive to humanize the Earth. As an intellectual looking glass of these trends constructivism functions as ideology—and it is, as conservation biologist Michael Soule has pointed out, as dangerous to the goals of conservation, preservation, and restoration of natural systems as bulldozers and chainsaws.<sup>5</sup>

Eileen Crist

## *Against the Social Construction of Nature and Wilderness* (2004)

THE POSTMODERN constructivist perspective on nature holds that cultural, economic, political, linguistic, scientific, and other practices mold the meanings of *nature* and *wilderness*. For constructivists such practices inescapably underlie all perceptions and valuations of the natural world. They argue that there exist no unmediated representations of nature, for the latter are anchored in social contexts—contexts indelibly inscribed within the ways of knowing that generate such representations.<sup>1</sup>

Constructivism considers it to be axiomatic that the intrinsic meaning of natural phenomena is unavailable, and that human semiotic and material work bestows meaning to them. Since interpretive and practical work is quintessentially social, constructivists further maintain that the emergence and character of beliefs, including true beliefs, about nature can be accounted for by sociocultural factors—be they economic conditions, political circumstances, paradigms, interests, networks, discursive practices, and the like. Since all beliefs are accounted for on sociocultural grounds, the constructivist position implies some degree of



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In articulating how the natural world is represented, constructivists are partial to formulations that stack the deck in favor of social constructivist conceptions. Metaphors of human labor regarding the creation of knowledge abound—familiar examples are building, constructing, assembling, manufacturing, inventing, or producing knowledge. Such vocabulary trades heavily on received distinctions between nature/natural and culture/artifactual, and through its semantics pushes the constructivist envelope—viz., that knowledge is primarily man-made, not imparted by nature. Another loaded vocabulary used with respect to knowledge creation is that of claims-making, contesting, and negotiating—a semantics transferred from political and litigation affairs, and designed to construe knowledge as perennially provisional or, to cite the constructivist idiom again, “contingent.” Finally, in articulating how nature is represented, constructivists tend to be partial to ascriptive formulas: they maintain that human beings assign, impute, or attribute meaning to the natural world.

In one formulation, the constructivist analysis of nature is described as “a concern with how people *assign* meaning to their world.”<sup>6</sup> This sort of wording is so automatically associated with constructivism that it is also used when paraphrasing its perspective: “We cannot experience nature except through the lens of meanings *assigned* to it by particular cultures,” writes environmental ethicist Anna Peterson.<sup>7</sup> The choice of the verb “assign” is implicitly presented as a neutral descriptor of the interface between representations and nature. But this semantic choice is neither neutral nor unproblematic. Not only is such wording loaded to favor constructivist conceptions; it also embeds the assumption that people operate on an existentially distinct plane vis-à-vis the natural world; and it blankets over a manifold of language-games describing how knowledge and the natural world relate. These points are elaborated in what follows.

Constructivist scholars sometimes admit that nature itself delimits how it is represented—maintaining, for example, that knowledge is “hybrid” or “co-produced” by cultural processes and natural constraints.

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But two things subsequently cancel out this empty gesture of what David Demerit calls “constrained constructivism”<sup>8</sup> toward the deciding power of the natural world. Firstly, in the analyses themselves the bulk of the focus and credit goes to economic, discursive, network, rhetorical, and other sociocultural factors through which (ever-“contingent”) representations are said to be constructed, negotiated, contested, black-boxed, and the like. Secondly, in (meta)descriptions of the constructivist project semantics that surreptitiously support a human-centered viewpoint are employed—such as “assigning meaning” to nature: from the outset, ascriptive ways of framing the interface between representations and nature plainly *assert* that meaning-making is a one-way affair from human arenas to the natural world.

The idea of imputing meaning to the natural world presumes a standpoint separate from it. While constructivists aver that only from specific standpoints can representations be created—that a “view from nowhere” is chimerical<sup>9</sup>—on a more fundamental level, by systematically eliding the substantive role nature plays in how it is represented, constructivists existentially divorce the human perspective from the natural world and describe meaning-making as acts of delegation emerging out of alliances, competition, negotiations, networks, rhetoric, or techniques of human arenas. Openly or implicitly, the natural world is portrayed as mute, intrinsically meaningless, ontologically indeterminate, epistemologically unavailable, and aesthetically indistinct—white noise, which prior to representation exists either as the proverbial blooming buzzing confusion, or as an elusive trickster amenable to indefinite registrations. Nature becomes narrated, theorized, invented, and comprehended—birthed into signified existence—by human activity. Prior to this representational animation the natural world is epistemically, aesthetically, ethically, and in all ways without intrinsic or participatory voice.

In one of his last essays, Paul Shepard lambasted this perspective as asphyxiating and provincial.<sup>10</sup> One way to point to its prevarication is by means of a little word-play: the assumptions underlying the supposed neutral inquiry into “how people *assign* meaning to the world” may be pruned open by countering its mirror-image formulation of inquiry into “how people *receive* meaning *from* the world.” The former sounds more

sonorous to the Western intellectual ear not because it is ultimately more cogent, but because it is rooted in a dominant humanist-Cartesian tradition of subject-object separation that grants human cognitive sovereignty over everything. But there exist potent contemporary and pre-modern traditions, which, in contrast to the anthropocentric gospel of Man-the-Meaning-Maker, have regarded meaning as already afforded *within* the world—and human beings, as well as other animals, are able to tune into, tap, decipher, or directly receive those meanings.<sup>11</sup>

Another way to make this anti-constructivist point is that the representational structures people work with are *derived from* the world within which the human species evolved. The composition of language co-evolved as, and with, the emanations and exigencies of the natural world—it is neither an alien installation nor a quantum leap beyond nature accomplished by the human brain.<sup>12</sup> It is not as if we have been beamed onto this planet from another dimension and must struggle to represent a nebulous world in “our” terminologies. Rather, such comprehensive ideas and universal preoccupations with truth, goodness, and beauty are integral with the natural universe within which they originated and within which their applications lean.

The difference between the typecast alternatives “assigning meaning” and “receiving meaning” is heuristically important in yet another way. Anyone can assign meaning to nature, arbitrarily or to serve whatever purposes or motives. Not everyone is in position to receive meaning from the natural world with equal alacrity or acumen. People receive meaning with divergent depth and accuracy according to whether they are equipped with pertinent knowledge, relevant training, prior experience, tuned awareness, passionate interest and attention, breadth of understanding, care, or sufficient self-cultivation.

When vivisectionists, for example, claimed that the movements and cries of cut-up animals were mechanical reflexes, they were indeed assigning to nature a self-serving registration—projecting a “virtual reality” that allowed them to go about their business without the inconveniences that a true registration would have entailed. But in discussing dogs’ ability to love, Charles Darwin noted that “everyone has heard of the dog suffering under vivisection, who licked the hand of the operator; this man, unless he had a heart of stone, must have felt remorse to the

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last hour of his life.”<sup>13</sup> Darwin—for whom feeling, reason, intelligence, curiosity, wonder, aesthetics, and morality were evidenced within the animal world<sup>14</sup>—was neither “contesting” the vivisection perspective nor “negotiating” an alternative “narrative.” He did not even bother to address its deluded opinions, but simply noted pain where pain is; he then almost casually remarked on the awakened conscience which *naturally* would haunt the vivisectionist provided he were open to the tidings of nature.

The choice of anthropocentrically slanted vocabularies—that construe knowledge through metaphors of labor, political/legal deliberation, or meaning-imputation—systematically erases the diversity of language-games available to describe representational activities. Representations of nature can be, and are, said to distort, imaginatively project, misconstrue, misinterpret, embellish, provisionally understand, approximate, work for all intents and purposes, intuit, predict, accurately explain, or deeply discern. Representations are also variously describable as interesting, beautiful, suggestive, questionable, objectionable, persuasive, compelling, or obvious.<sup>15</sup> None of this variety of assessing how representations and nature intersect is heeded by postmodern constructivism, which, on the contrary, ousts the wealth of epistemic valuations that ordinary-language and practices work with (in science and other arenas) in favor of a narrow, skewed set of metaphors. A diversity of predications is stifled under the monolithic formula that knowledge is “socioculturally constructed,” as though the latter somehow enlightens more than the range of epistemic differentiations that it smoothes.

Natural language embodies an eclectic array of descriptions about how knowledge and belief interface with the natural world: from delusive, biased, and self-serving, to provisional, good-enough, or approximate, to profound, stable, accurate, and even (heaven forbid) universally true. The concepts “knowledge” and “belief,” themselves, predicate the epistemic standing of phenomena with qualitatively distinct degrees of certainty:<sup>16</sup> but the divergence between “knowing” and “believing” is either openly disavowed in constructivist thought or whitewashed under the gloss of representations as “contingent.” The erasure of diverse representational modalities—in favor of a one-dimensional human-hegemonic vocabulary of knowledge as sociocultural “construction”



and/or "narrative"—is the ubiquitous linguistic move upon which the constructivist understanding of nature rests.

But the moment that the manifold language-games capturing the gamut of relations between knowledge and nature are readmitted—as a *bona fide* map rather than epiphenomenal—we are delivered from the suffocating picture of a lone, representation-constructing being projecting meaning either on a blank screen (strong constructivism) or an elusive nature differentially construable according to social position (standpoint epistemology). This view, as Shepard noted, is as oppressive as the positivism it has sought to discredit.<sup>17</sup> The two perspectives have more in common than either would care to acknowledge: they share what David Ehrenfeld has famously called "the arrogance of humanism," and Vicki Hearne aptly described as "humana."<sup>18</sup> In assessing the art of interfacing scientific knowledge and natural reality, positivism and constructivism both acclaim human representational and interventionist capacities as the centerpiece. Neither school of thought has ever counseled students about the significance of humility and respect toward the natural world. This is not coincidental: these perspectives are what historian Lynn White has called "post-Christian,"<sup>19</sup> in the sense that for both the primary locus of meaning is human categories-*cum*-techniques—in Biblical terms, naming-and-working.

The hidden ties of constructivism to the Judeo-Christian worldview reveal the "social construction of nature" as a post-Christian viewpoint. The first similarity involves the striking family-resemblance between the constructivist supposition that nature is intrinsically voiceless and the Biblical myth in which Adam is given the task to name the Creation. The second similarity involves the alleged special status of human beings: in Biblical terms Man was made in God's image, while in constructivism as symbol-possessing and technology-producing beings humans stand apart from all animals. The third similarity between the Judeo-Christian and constructivist views is that for both the natural world is devoid of native meaning, being, order, mystery, value, or feeling. Indeed, it was the Judeo-Christian worldview that evacuated immanent significance from the natural world, thereby desacralizing it and making it a place to be dominated and used, virtually unrestrainedly, by human beings.<sup>20</sup>

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The exorcism of *anima* from nature—after two millennia of a dominant material and religious culture of European Judeo-Christianity—constitutes a (by now) undetectable pillar of postmodern constructivism: the silencing of wild nature through long-term colonization and through what sociologist Max Weber discerned as "the disenchantment of the world"<sup>21</sup> is deep inside the belly of an amnesiac paradigm that exalts human cultural "readings" and "practices" as font of all knowing.

The constructivist perspective has inherited, in secularized form, key elements of the religion that White called "the most anthropocentric of the world." A major difference between constructivist and Christian viewpoints is that the former acknowledges the diversity and flux of narratives, while the latter has often sought to impose a single doctrine. Nevertheless, the two partake of the same worldview: that the basis of the human relationship to nature has far more to do with meaning projection and instrumental intervention, than it does with *the cultivation of receptivity*—opening oneself, listening, watching, being within, letting be, or merging into. Secular and religious (respectively), their story is the same "old story of the tail wagging the dog," as deep ecologist George Sessions notes about postmodern anthropocentrism.<sup>22</sup>

The bottom line of the humanist mindscape—of which postmodern thought is the latest outgrowth—is that knowledge is a human franchise from which we naturally draw a sense of cognitive supremacy over the rest of creation and/or cognitive sovereignty over the world. According to constructivist Andrew Ross, for example, "there are no 'laws' in nature, only in society, because 'laws' are made only by us and can therefore only be changed by us. Nature, in short, does not always know best."<sup>23</sup> An ecocentric sensibility recoils from such supercilious parochialism: knowledge is a boon from nature not a human project about or projection onto it; and knowledge is evidenced throughout the animal world as naturalist, wilderness, and increasingly scientific writings attest.<sup>24</sup>

The constructivist assumption that the natural world is devoid of immanent meaning is neither self-evident nor uncontested. For the cultures, individuals, and ecological movement that have embraced an ecocentric understanding of nature is suffused with feeling—with love, joy, grief, curiosity, pain, wonder; nature is suffused with intelligence—



awareness, attention, communication, reason, cunning; nature is suffused with energy perceived as aesthetic elation; nature is suffused with mystery experienced as transcendental feeling; and nature is suffused with spectacular order—complex, autopoietic, ever-changing, dynamically temporal, and emergent. The cavalier rejection of the natural world as intrinsically meaningful rests on the historical extirpation of peoples who have regarded and treated plants, animals, and the land as possessing native intelligence in dialogue with human beings; and it rests on its contemporary dismissal as New Age animism.

When nature is understood as the emanating source of meaning and knowledge—rather than the object, playpen, or epistemic outcome of cultural endeavors—what common sense mostly intuitively also follows logically: that there exist ways of representing the world that are *essentially* more profound, more true, more insightful, more enduring—not to say more respectful and more beautiful—than others for neither sociocultural nor “knowledge/power” related reasons, but because they align with nature in valid, perceptive ways. Western science has created such knowledge in spades, as have other and far older knowledge systems. Moreover, not only intersubjective knowledge traditions but also individuals through self-cultivation can transform themselves into mediums of “personal knowledge”—the human mind-heart-body, being itself a piece of the world, can become a transparent instrument for understanding and expressing nature.

### POLITICAL GRIEVANCES WITH CONSTRUCTIVISM

The constructivist agenda has been described as the objective to understand “the social history of nature”; this agenda is the converse of, and quite inimical to, the objective to understand “the natural history of society/humanity.”<sup>25</sup> My interest is not to defend a *naturalistic* account of human society over a *social* account of nature. Rather, I consider the political ramifications of focusing on sociocultural accounts of nature at this particular historical juncture.

Attending to the social history of nature, by default, skirts an ending of natural history that we are bearing witness to today: the quickening,

worldwide ruination of natural systems such as wetlands, waterways, tropical, temperate, and boreal forests, grasslands, deserts and tundra, coastal and ocean habitats, and their native biodiversity. This ecological destruction—whether examined at the levels of habitat, ecosystem, species (as well as subspecies and varieties), organisms’ recent natural ranges and migration routes, population numbers, genetic diversity, or evolutionary viability—is being documented and vociferously protested by life scientists from evolutionary biology, ecology, wildlife science, botany, and other disciplines. Indeed, a new “conservation biology”—defined as science in the service of conservation of life’s native diversity—was created in the 1980s to oppose and mitigate the biodiversity crisis.<sup>26</sup>

At a time when unprecedented developments in the world and the life sciences call for a thoughtful openness toward the scientific enterprise, students in the humanities are taught to deconstruct and translate natural science discourses into the idioms of their own fields. The project is not to learn from science about the (state of the) natural world. Instead, it is to kindle skepticism toward taking scientific claims at face value in order to understand the genesis of those claims as products of political negotiation, network action, ideological or ethical motivation, technological determination, or other social variables depending on the specifics. On this view, the self-presentation of “scientific knowledge” is like the tip of the iceberg: what is not visible, but brought to light by constructivist analyses, is the submerged part that constitutes the sociocultural underpinnings which scientists disregard or screen out in formal presentations of facts, theories, or products.

In revealing the importance of social factors in science, and making scientists more aware of them, this project is intellectually and pragmatically valuable. It becomes incoherent, however, when built upon a stout allegiance to skepticism toward the realist status of scientific claims—for the apparent purposes of either disclosing the natural-scientific enterprise as a branch of the human sciences or defrocking scientific claims as having no special status, being “one set of stakeholder claims” among others. Questioning scientific and technological developments is desirable for eschewing blind faith in the scientific establishment and cultivating critical-mindedness; but constructivism goes beyond this



welcome goal to place the scientific enterprise under the siege of skepticism.<sup>27</sup> But skepticism about the veridicality, and (where applicable) the universality, of scientific knowledge does not serve the art of critical thinking: rather, it collides head-on with the voice of reason which states that an enterprise dedicated to the pursuit of (universal) truth(s) about nature must, at least some of the time, hit bull's eye.<sup>28</sup>

The project of "the social history of nature" is not intrinsically at odds with what has been called the end of natural history, the end of nature, the extinction holocaust, the death of birth, biological meltdown, or biological Armageddon.<sup>29</sup> At the level of analysis, however, instead of attending to the degradation of natural systems, constructivism focuses exclusive attention on *human discourses* about it.<sup>30</sup> This approach to environmental issues obeys standard constructivist moves, which either bracket "nature itself" as extraneous to sociocultural exegeses about it, or regard "natural reality" as outcome rather than source of scientific representations.<sup>31</sup> But the epistemological construal of sociocultural input as sufficiently explanatory of, or constitutive force behind, "natural reality" grants power to human practices that reflects and reinforces our species' capacity for colossal arrogance; it generates the familiar logical and political problems associated with relativism,<sup>32</sup> and funnels all fascination about knowledge creation as a story about *people*—rather than revelation, conjecture, distortion, etc., regarding *nature*.

Taking a human-driven ending of natural history seriously presupposes admitting the independent reality of what is ending; and it requires trust in the scientific discourses charged with understanding the building-blocks and processes of natural history. Insurmountable roadblocks to these prerequisites seem built into constructivist reasoning—for both scientific inquiry and its submitted views about natural history are regarded as socioculturally negotiated, provisional configurations. But coming to terms with the predicament of complex life on Earth necessitates that the relevant biological knowledge be taken at face value—a very different stance from deconstructing and/or bracketing its status as realistic representation, or regarding its content as the outcome (rather than source) of inquiry. Taking science seriously means that instead of an exclusive meta-discursive focus on *how* scientific "claims" are made, there is receptivity to the validity of biological

cal findings; and instead of focusing on how scientific assessments are "contested"—a favorite constructivist tack—what scientists are agreeing on is (also) attended to.

Crucially for the argument presented here, life scientists concur that we are in the midst of a human-driven biodiversity crisis.<sup>33</sup> The gravity of this diagnosis is not marred by the caveat that scientific estimates of extinction rates often diverge widely. The significant point is that biological science—conservation biology, especially—is the key source of knowledge about biodiversity losses, regardless of the obstacles in producing precise quantitative expressions.<sup>34</sup> The reality of this crisis is documented with urgency by a burgeoning biological literature; as E. O. Wilson puts it, "the evidence is persuasive: a real problem exists, and it is worthy of your serious attention."<sup>35</sup>

Yet constructivist analyses of "nature" favor remaining in the comfort zone of zestless agnosticism and noncommittal meta-discourse. As David Kidner suggests, this intellectual stance may function as a mechanism against facing the devastation of the biosphere—an undertaking long under way but gathering momentum with the imminent bottlenecking of a triumphant global consumerism and unprecedented population levels. Human-driven extinction—in the ballpark of Wilson's estimated 27,000 species per year—is so unthinkable a fact that choosing to ignore it may well be the psychologically risk-free option.

Nevertheless, this is the opportune historical moment for intellectuals in the humanities and social sciences to join forces with conservation scientists in order to help create the consciousness shift and policy changes to stop this irreversible destruction. Given this outlook, how students in the human sciences are trained to regard scientific knowledge, and what kind of messages percolate to the public from the academy about the nature of scientific findings, matter immensely. The "agnostic stance" of constructivism toward "scientific claims" about the environment—a stance supposedly mandatory for discerning how scientific knowledge is "socially assembled"<sup>36</sup>—is, to borrow a legendary one-liner, striving to interpret the world at an hour that is pressingly calling us to change it.

A key claim that constructivism trades on is the fluidity of scientific knowledge—as Mick Smith puts it, "science changes; its opinions



are not permanent."<sup>37</sup> This view, along with the fact that there exist disagreements and clamorous (sometimes highly politicized) debates within science, are cited as conspicuous indications that the image of science as "impartial, consensual, and universally valid" is belied by empirical studies of scientific inquiry that reveal it to be shifting, polemical, political, value-relevant, theory-laden, technologically-mediated and -oriented, or paradigm-dependent. While the constructivist project thus broadens the understanding of science, and at first glance seems a tenable substitute for a previously idealized view, on closer examination it often conceals that stable scientific facts about the natural world are legion and amassing.<sup>38</sup> Constructivism tends to promote an image of science as ever-changing and disputatious, endeavoring to replace the idealization of consensus-driven linear progress with an equally fictitious picture of contentious contingency.<sup>39</sup> Indeed, "contesting," "contested," and "contentious" are prominent buzzwords of constructivism.

A germane (for this paper) example of stable knowledge about nature, which has enhanced the horizons of humanity immeasurably, has been the discovery of evolution. Even as debates about the mechanisms and speed of speciation have raged for a century and a half, it is equally the case that in 1859 Charles Darwin opened a floodgate through which evidence confirming common descent has not ceased flowing. One can foresee theories about evolution gaining and losing ground, but one would be hard pressed to imagine *the gigantic fact* of common descent by modification one day chucked into the bin of obsolete beliefs. After 150 years of supporting evidence from every province of biological science, all odds favor that the evolutionary kinship of Earth's life forms is here to stay as universal fact.<sup>40</sup> To put it unambiguously, common descent by modification as "universal fact about life" means that it holds true for those who lived before, and who presently ignore or oppose, Darwin's discovery; it may even hold true for life in the universe at large, for without a mechanism of transmutation to enable adaptation, even if life emerged on a planet it would be unlikely to survive the titanic forces of environmental change, in the long run.

A case about stable scientific knowledge can also be made regarding the understanding of ecosystems. It is well known that views about the

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stability versus flux of ecosystems, and the relationship between biological diversity and ecological resilience, have markedly shifted; they are likely to shift again.<sup>41</sup> But the general insight into—along with innumerable concrete facts about—what Darwin called "the entangled bank" of organisms interlocked in food pyramids, relationships of symbiosis, tolerance, and competition, conversion of nutrients, waste assimilation and decomposition, and element cycling is so solid as to have become nearly prosaic: it constitutes the *ground* from which debates about the relative stability versus dynamism of ecosystems are launched. To focus on how perspectives within ecology have shifted may be intellectually stimulating, but to obscure the background of accruing ecological knowledge in relation to which scientific analysis has changed is to elide a huge portion of the spectrum that composes "scientific knowledge."

Connected to established knowledge about evolutionary and ecological processes is a wealth of recent conservation biology studies regarding: consequences of habitat destruction and fragmentation for ecosystems and their biodiversity; area-species requirements, especially for viable populations of predators and other keystone species; impact of invasive species; connection between genetic variability and evolutionary viability; the assessment of overall declining biological integrity of ecosystems; estimates of population thresholds beneath which species and subspecies enter the red zone of potential annihilation; exacerbating effects of climate change on the biodiversity crisis.<sup>42</sup> These scientific findings, among innumerable others, educate about the state of the biosphere: they reveal that without requisite changes in human affairs, cornerstone dimensions of natural history—namely, evolutionary processes, ecological integrity, robust populations of nonhumans, and biodiversity—will continue to be dismantled.

Epistemological focus on the "social history of nature," at a time when the catastrophic impact of "social history *on* nature" is swelling, may reasonably be charged as a diversion of intellectual and political energies away from the main event.

A more severe censure of the constructivist approach to nature is that not only does it distract attention from the environmental predicament, but it also supports that predicament. Constructivists diagnose radical



ecological views as "an artefact of current social circumstances"<sup>43</sup>—a charge to which radical ecologists plead guilty since they aim to redress these circumstances. But social constructivism is also "an artefact of current social circumstances"—albeit a far cry from protest: the most troubling facet of the constructivist paradigm is that, as an approach to understanding nature, it is boosted by (and in that sense cashes in on) the social destruction of nature.

In her tempered critique of constructivism, Peterson observes that nature can be regarded as "socially constructed" in two ways, ideational and material: ideas about nature are shaped through culturally diverse lenses; and natural landscapes are physically altered by human technologies and activities.<sup>44</sup> Peterson sees these as distinct facets of "the social construction of nature." What others have added to this analysis is that the two resonate with one another especially at this historical juncture.<sup>45</sup>

The notion that the Earth's natural systems are only graspable in "mediated" terms strikes a cheerless chord with the global undertaking to convert the planet into a *Homo sapiens* outpost: if nature is sufficiently pliable to be molded by human work, then it can be deemed passive enough to be fully constituted through cultural discourses; and as nature is increasingly simplified by human incursions, it not only seems but *becomes* more susceptible to conceptual subordination. These are the tacit harmonies between the social destruction and social construction of the planet's natural systems. And thus an order of things indictable as corrupt is, instead, implicitly tapped by constructivism to bolster its epistemology.

With the human impact on the planet escalating, the autonomous self-organization of the natural world is correspondingly obliterated, and alongside this obliteration, the idea that there exists no "essential nature" beyond cultural mediations entrenches itself as robustly realistic. As the biosphere is colonized—settled, paved, mined, burnt, dammed, drained, over-fished, poached, and roundly used—diversified conceptions of how "nature" and "society" (should) relate are more facetiously bulldozed by a monolithic image of "nature-society" hybridization. The idea that "we have moved from thinking of nature and society as distinct realms or regions to thinking of them as interlaced or entangled"<sup>46</sup>

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is typically redeemed through icons of a domesticated, impoverished, or technologically remade world.

For example, Steve Hinchliffe provides a pictorial illustration—skeptically captioned "Natural parks?"—showing a denuded aspect of Snowdonia National Park, with pastureland and a fence in the foreground, informing us that "this scene is as social as it is natural." Along with a hypothetical example of cloning (in which we are similarly edited that biology and society would contribute to a cloned person's identity), he apparently hopes that "these examples may have convinced you that nature and society are indeed two sides of the same coin."<sup>47</sup> Indeed, they are two sides of the same coin as long as, in wilderness advocate Bob Marshall's words, "the tyrannical ambition of civilization to conquer every niche on the whole Earth"<sup>48</sup> is either left undisturbed or implicitly condoned as an acceptable historical course.

Leaning heavily on Latour's thesis in *We Have Never Been Modern*, Hinchliffe censures the separation of nature and society as "pure" categories.<sup>49</sup> But the hybrid (constructivist) model of entangled nature/society and the purified (objectivist) model of distinct nature/society share the *totalizing design* characteristic of all ideological and/or over-theorized formulations: we are invited to buy into them hook, line, and sinker. From an ecologically informed environmentalist perspective both models are deficient; both are "purifications"—wholesale academic kits with ready-made semantics and concepts that spare students the trouble of creating their own tooling.<sup>50</sup>

The alternative is to regard the received umbrella categories of "nature" and "society," such as they are, as referring to an array of empirical phenomena and conditions. The character of their relation is not to be decided *a priori* by grandiose theoretical schemes, but rather diversely defined and understood depending on what is at stake—on specific contexts of analysis, values, and action. It is under such auspices that wilderness advocates defend areas "where the earth [*sic*] and its community of life are untrammelled by man, where man himself is a visitor who does not remain."<sup>51</sup> Whatever the flaws of this definition may be, the intent of those who so crystallized the understanding of wilderness forty years ago is a *key site of resistance* against both the real-



ization of a humanized, biologically degraded planet and its epistemological handmaiden of everything as a "hybrid," "cyborg," and "nature-society" hodgepodge.

### THE ENDANGERED IDEA AND REALITY OF WILDERNESS

There is nothing intellectually or socially innocent about the timing of the disclosure that "wilderness" is a cultural concept: as wild nature sinks into the quicksand of all manner of development, the idea itself starts to feel like gossamer. What poses as a sophisticated argument—that wilderness is a construct since it has been a (non)idea amenable to historically diverse conceptions—in socio-historical context can be understood as an unsurprising ideological reverberation of the appropriation of wild nature.

In his work *Grizzly Years*, Doug Peacock observed that wilderness was becoming an endangered idea well before it became academic fashion to question its essence. "After Vietnam I saw the world changing with amazing rapidity, with a violent tempo I had not noticed before 1968. The pace I had heard as a slow drumbeat in the fifties was now a rapid staccato . . . Everywhere you looked, you saw a microcosm of the entire buzzing globe—even in the woods, in grizzly country. *The entire concept of wilderness as a place beyond the constraints of culture and human society was itself up for grabs.*"<sup>52</sup> As early as the late 1960s, Peacock sensed how the deflowering of wilderness was paving the way to its conceptual emasculation.

The tightening blockade on wild nature is a fitting existential background to the idea of wilderness as sociocultural construct. Because of this snug historical fit the constructivist view of wilderness functions as ideology—regardless of whether it is so intended. "Wilderness" qua construct conceptually erases the objective reality of the word's referent thereby fortifying its physical eradication by the very civilization that spawned constructivist thought. As Soule puts it, the siege on nature has become two-fold: the overt physical siege and the "covert assault [which] serves to justify, where useful, the physical assault."<sup>53</sup> In a simi-

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lar vein, Kidner argues that constructivism "provides a model of nature which fits seamlessly into the industrialist view of the world."<sup>54</sup>

The argumentative strategy of the social construction of wilderness proceeds in line with what Vandana Shiva has called "the politics of disappearance."<sup>55</sup> The main tactic is obscuring from view that the meaning of a concept is not composed only of its *sense* but also of its *reference*. What wilderness refers to is systematically left out of discussion as constructivist analyses remain at the level of people's (culturally and historically divergent) ideas, as though beliefs and sentiments about wilderness fully exhausted the meaning of the concept. To borrow a well-worn example from linguistics, it is as though analysts documented the divergent beliefs of two tribes about the "morning star" and the "evening star": finding that narratives about these "stars" differ profoundly, analysts concluded that either they cannot possibly refer to the same celestial object, or they do not refer to anything (really knowable) beyond the discourses about the "stars" themselves.<sup>56</sup>

In disregarding the reference dimension of wilderness, constructivist thinking renders its meaning completely in the abstract.<sup>57</sup> The meaning of wilderness is, of course, not solely its referent(s): but as encroachment into virtually all land and ocean habitats escalates, this ancient facet of the concept of wilderness—which has threaded through its diverse cultural senses—is being hacked just as surely as its physical counterpart. By treating "wilderness" as an abstract idea, constructivists are both reflecting and condoning the eclipse of its reality.

Another tactic in the politics of disappearance is that insofar as reference to wilderness as self-organizing, self-determining nonhuman habitats is at all admitted, it is denied any essential existential/ontological standing.<sup>58</sup> The negation of essentialism is promoted by presenting ecological knowledge as perennially controversial and tentative, and more generally, by undermining the credentials of biological science to speak with ultimate authority about natural systems. Constructivist literature is also replete with *en passant* assertions of the supposedly obvious—that there is no essential core to "wilderness" beyond the play of culturally diverse narratives or socially negotiated constructions. The anti-essentialism of postmodern constructivism is presented as the high-



ground of the intellectually elite. An essentialist view of wilderness is deemed an anachronism held by naïve romantics—or by those uninitiated into the abstruse meditations of postmodern illumination.

Wilderness as an essential reality independent of human presence, will, and control is also rejected as “one pole of a dualism,” reflecting a reified separation between pristine nature and impure humanity.<sup>59</sup> Critics of the wilderness idea make a lot out of the historical roots, and ostensible chimera, of understanding wilderness as a pristine realm untouched by people. In fact, such analyses assess the human separation from wild nature as *the driving force* behind environmental destruction: it was from such a disconnected mindset that the conquest of the New World, for example, was launched. This argument is sound insofar as it is evoking the connotation of “separation” from wilderness *sensu* human attitudes and actions alienated from, superior over, and thereby entitled to indiscriminate use of wild nature.

However, if the colonizing *modus operandi* is looked at from a different angle, the problem is equally well-defined as a *deficient sense* of appropriate dimensions of human separation from wild habitats. Conquistadors have always striven to annex both wild nature and people through violating rightful boundaries—first annihilating and then assimilating the other, whether nonhuman or human. So, while much is made of the supposed problem of human separation from wilderness—or of “society” from “nature”—little attention is paid to the virtuous face of separation. In a world where all are honored, a respectful observance of separation is also honored as the complement of intimacy with nature not its negation. This sense of separation does not stem from an ideology of human-wilderness dualism, but from the cultivation of an ecological ethic as Aldo Leopold understood it: a self-imposed limitation on our actions flowing from love, respect, and admiration of the land.<sup>60</sup>

It is in this spirit that radical ecologists advocate wilderness as an essential reality largely independent of human presence and control: wilderness areas of the Earth are the homelands of nonhumans—in scientific terminology, they are biodiversity reserves where native life can continue to flourish and evolve.<sup>61</sup> Without the range of conditions that wilderness avails, we are faced with the dismal possibility of a human-inaugurated biogeological era of an indigent natural history of wild

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native animals, plants, and ecosystems. Life will continue of course, but the *flame of life*—fanned by the bellows of evolutionary surging, immeasurable ecological complexity, prodigal numbers of living beings, and a diversity of life forms still unknown to the nearest order of magnitude—is in very real peril of being snuffed out.

## CONCLUSION

What Max Weber called modern civilization’s “disenchantment of the world”—which critical theorists Max Horkheimer and Theodore Adorno bitterly interpreted as that “arid wisdom that holds that there is nothing new under the sun”<sup>62</sup>—is materializing into a mundane, homogenized reality which everywhere bears (or, as affairs proceed, will bear) the human stamp.

In procession with this emerging new reality order, the memory (or future possibility) of a time when the natural world emanated an essence that was thickly fragrant, unbelievably fresh, profligate, seemingly indomitable, diverse, significantly unknown, enchanted, and wild is swiftly dimming in the human psyche. Toward the late nineteenth century, British poet Gerard Manley Hopkins saw through the human transfiguration of the world with piercing words:

Generations have trod, have trod, have trod;  
And all is seared with trade; bleared, smeared with toil;  
And wears man’s smudge and shares man’s smell: the soil  
Is bare now, nor can foot feel, being shod.

Over a century after these lines were penned, it is becoming increasingly unlikely that we may long be comforted by the presentiment, which the poet expressed later in his sonnet, that “for all this . . . There lives the dearest freshness deep down things.” Indeed, longing for such freshness is increasingly reckoned an embarrassment—labeled as romantic, atavistic, and unrealistic. The dismissive power of such labels mirrors the brawn of the prevalent socioeconomic system in which, as Herbert Marcuse incisively discerned, “not only radical protest, but even the attempt to formulate, to articulate, to give word to protest assume a child-like, ridiculous immaturity.”<sup>63</sup>



If resistance against the endpoint of a colonized planet has hope of succeeding, we should be exceptionally wary of the postmodern call to put aside childish concepts like "purity," "essence," and "the romantic idea of wilderness."

## NOTES

1. See Steve Hinchliffe and Kath Woodward, *The Natural and the Social: Uncertainty, Risk, Change* (London: Routledge, 2000); Arturo Escobar, "After Nature: Steps to an Anti-Essentialist Political Ecology," in *Current Anthropology* 40/1 (1999): 1–6; Phil Macnaghten and John Urry, *Contested Natures* (London: Sage, 1998); Jozef Keulartz, *The Struggle for Nature: A Critique of Radical Ecology* (London: Routledge, 1998); Sheila Jasanoff and Brian Wynne, "Science and Decisionmaking," in Steve Rayner and Elizabeth Malone, eds., *Human Choice and Climate Change* (Columbus, OH: Battelle, 1998); Philippe Descola and Gisli Palsson, *Nature and Society: Anthropological Perspectives* (London: Routledge, 1996); John Hannigan, *Environmental Sociology: A Social Constructionist Perspective* (London: Routledge, 1995); William Cronon, ed., *Uncommon Ground. Toward Reinventing Nature* (New York: W. W. Norton, 1995); Andrew Ross, *The Chicago Gangster Theory of Life: Nature's Debt to Society* (London: Verso, 1994).
2. Macnaghten and Urry, *Contested Natures*, p. 95.
3. Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge* (Minneapolis: University of Minnesota Press, 1989); Ian Hacking, *The Social Construction of What?* (Cambridge, MA: Harvard University Press, 1999); Michael Lynch, "Towards a Constructivist Genealogy of Social Constructionism," in Irving Velody and Robin Williams, eds., *The Politics of Constructionism* (London: Sage Publications, 1998); André Koukla, *Social Constructionism and the Philosophy of Science* (London: Routledge, 2000); David Demerit, "What Is the 'Social Construction of Nature'? A Typology and Sympathetic Critique," in *Progress in Human Geography* 26/6 (2002): 767–790.
4. See George Sessions, "Postmodernism and Environmental Justice," in *The Trumpeter* 12/3 (1995): 150–154; David Kidner, "Fabricating Nature: A Critique of the Social Construction of Nature," in *Environmental Ethics* 22 (2000): 339–357.
5. Michael Soule and Gary Lease, *Reinventing Nature? Responses to Postmodern Deconstruction* (Washington, D.C.: Island Press, 1995), p. xvi. Gary Snyder, "Is Nature Real?" in Tom Butler, ed., *Wild Earth: Wild Ideas for a World out of Balance* (Minneapolis, MN: Milkweed Editions, 2002).
6. Hannigan, *Environmental Sociology*, p. 33.
7. Anna Peterson, "Environmental Ethics and the Social Construction of Ethics," in *Environmental Ethics* 21 (1999): 339–357, p. 341.
8. Demerit, "What Is the 'Social Construction of Nature'?"
9. Donna Haraway, "Situated Knowledge: The Science Question in Feminism and the Privilege of Partial Perspective," in Mario Biagioli, ed., *The Science Studies Reader* (New York: Routledge, 1999).
10. Paul Shepard, "Virtually Hunting Reality in the Forests of Simulacra," in Michael Soule and Gary Lease, eds., pp. 17–29.
11. Wilderness advocates, deep ecologists, naturalists, poets, farmers who live with the land, scientists, and phenomenologists, in differing ways, have expressed opposition to the worldview of a passive natural world rendered meaningful by the human *cogito*.
12. Cf. Gary Snyder, *The Practice of the Wild* (New York: North Point Press, 1990).
13. Charles Darwin, *The Descent of Man and Selection in Relation to Sex* (Princeton: Princeton University Press, 1981 [1871]), p. 40.
14. Charles Darwin, *The Descent of Man and Selection in Relation to Sex; On the Expression of Emotions in Man and Animals* (Chicago: The University of Chicago Press, 1964 [1872]); *On the Formation of Vegetable Mould by Worms with Observations on their Habits* (Chicago: The University of Chicago Press 1985 [1881]).
15. E. O. Wilson, *Consilience: The Unity of Knowledge* (New York: Vintage Books, 1999), p. 64.
16. Jeff Coulter, *Mind in Action* (Oxford: Polity Press, 1989).
17. Shepard, "Virtually Hunting Reality," p. 20.
18. David Ehrenfeld, *The Arrogance of Humanism* (New York: Oxford University Press, 1978); Vicki Hearne, *Adam's Task: Calling Animals by Name* (New York: Vintage Books, 1987 [1982]).
19. Lynn White, Jr., "The Historical Roots of Our Ecologic Crisis," in *Science* 155 (1967): 1203–1207.
20. White, "The Historical Roots of Our Ecologic Crisis"; Roderick Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 1967); Carolyn Merchant, *The Death of Nature* (San Francisco: Harper, San Francisco, 1983). For more ecocentric interpretations of Christianity, see Holmes Rolston III, "Wildlife and Wildlands: A Christian Perspective," in Dieter Hessel, ed., *After Nature's Revolt: Eco-justice and Theology* (Minneapolis: Fortress Press, 1992). White himself ended his classic paper by proposing Francis of Assisi as patron saint of ecologists.
21. Max Weber, "Science as a Vocation," in H. H. Gerth and C. Wright Mills, eds., *From Max Weber: Essays in Sociology* (New York: Oxford University Press, 1946 [1919]), p. 155.
22. Sessions, "Postmodernism and Environmental Justice," p. 153.



23. Ross, *The Chicago Gangster Theory of Life*, p. 15.
24. Donald Griffin, *Animal Minds* (Chicago: The University of Chicago Press, 2001).
25. Mick Smith, "To Speak of Trees: Social Constructivism, Environmental Values, and the Future of Deep Ecology," in *Environmental Ethics* 21 (1999): 359–376.
26. Michael Soule, "What Is Conservation Biology?" in *BioScience* 35 (1985): 727–734; Reed Noss, "Is There a Special Conservation Biology?" in *Ecography* 22 (1999): 113–122.
27. Skepticism has been injected into constructivism by the appeal to two philosophical theses as (ironically) sweepingly true: the "underdetermination thesis" (all theories are underdetermined by evidence), and the "theory-ladenness of observation" (data are always mediated by interpretation, techniques, paradigms, etc.). Hacking, *The Social Construction of What?* p. 73.
28. For philosophical expositions of the incoherence of skepticism, see the late Wittgenstein-influenced analyses of Coulter, *Mind in Action*; Stanley Cavell, *Disowning Knowledge: In Six Plays of Shakespeare* (Cambridge: Cambridge University Press, 1987); and Hearne, *Adam's Task*.
29. It reflects the severity of the biodiversity crisis that recent scientific literature often characterizes the human-driven annihilation of plants, animals, and ecosystems in such value-oriented terms. For constructivists, expressions like "holocaust" or "Armageddon" would be construed as a "rhetoric of calamity" (Hannigan, *Environmental Sociology*, p. 36), or as environmentalist "morality play" (Ross, *The Chicago Gangster Theory of Life*, p. 31). Such a constructivist standpoint must remain blindly focused on the words, rather than looking at the realities compelling scientists and others to use them.
30. Constructivists even express skepticism about the diagnosis that we are in the midst of "an environmental crisis." For example, Hannigan, *Environmental Sociology*, p. 30.
31. Bruno Latour and Steve Woolgar, *Laboratory Life: The Construction of Scientific Facts* (Princeton: Princeton University Press, 1986 [1979]).
32. See James Proctor, "The Social Construction of Nature: Relativist Accusations, Pragmatist and Critical Realist Responses," in *Annals of the Association of American Geographers* 8 (1998): 352–376.
33. E. O. Wilson, *The Future of Life* (New York: Alfred Knopf, 2002); John Terborgh, *Requiem for Nature* (Washington, D.C.: Island Press, 1999); Paul Ehrlich, "Extinction: What Is Happening Now and What Needs to Be Done," in David K. Elliott, ed., *Dynamics of Extinction* (New York: John Wiley, 1986), pp. 157–164; Peter Raven, "Disappearing Species: A Global Tragedy," in *The Futurist* (October 1985): 9–14; "What Have We Lost, What Are We Losing?" in Michael J. Novacek, ed., *The Biodiversity Crisis: Losing What Counts* (An American Museum of Natural History Book, New York: The New Press, 2001); Stuart Pimm, "Can We Defy Nature's End?" in *Science* 293 (2001): 2207–2208; Wilson, *The Future of Life*.
34. W. Wayt Gibbs, "On the Termination of Species," in *Scientific American* (November 2001): 40–46; Eileen Crist, "Quantifying the Biodiversity Crisis," in *Wild Earth* (Spring 2002): 16–19.
35. E. O. Wilson, "Introduction" to Susan Middleton and David Liittschwager, *Witness: Endangered Species of America* (San Francisco: Chronicle Books, 1994), p. 17.
36. Hannigan, *Environmental Sociology*, p. 31.
37. Smith, "To Speak of Trees," p. 370.
38. Holmes Rolston, III, "Nature for Real: Is Nature a Social Construct?" in T. D. J. Chappell, ed., *The Philosophy of the Environment* (Edinburgh: University of Edinburgh Press, 1997), pp. 38–64; Hacking, *The Social Construction of What?*
39. Criticizing radical ecologists for drawing on scientific ecology, constructivist Keulartz maintains that "as an empirical and experimental science ... [its] results are by definition controversial and tentative, so that ecology as such is fallibilist rather than fundamentalist in character." Keulartz's bizarre view of ecological science as "ever-uncertain" is inspired by the postmodern perspectives of Latour, Haraway, Derrida, and others (Keulartz, *The Struggle for Nature*, pp. 155, 2, 158).
40. Ernst Mayr, *The Growth of Biological Thought: Diversity, Evolution, and Inheritance* (Cambridge, MA: The Belknap Press, 1982); *One Long Argument: Charles Darwin and the Genesis of Modern Evolutionary Thought* (Cambridge, MA: Harvard University Press, 1991).
41. Daniel Goodman, "The Theory of Diversity-Stability Relationships in Ecology," in *The Quarterly Review of Biology* 50 (1975): 237–266; Daniel Botkin, *Discordant Harmonies: A New Ecology for the Twenty-first Century* (New York: Oxford University Press, 1990); Donald Worster, "The Shaky Ground of Sustainability," in George Sessions, ed., *Deep Ecology for the 21st Century* (Boston, MA: Shambhala Press, 1995).
42. Stuart Pimm and Peter Raven, "Extinction by Numbers," in *Nature* 403 (2000): 843–845; John Terborgh, "The Big Things that Run the World—A Sequel to E. O. Wilson," in *Conservation Biology* 2 (1988): 402–403; Reed Noss et al., "Conservation Biology and Carnivore Conservation," in *Conservation Biology* 10 (1996): 949–963; Greta Nilsson, *The Endangered Species Handbook* (Washington, D.C.: Animal Welfare Institute, 1983); Gary Meffe and Ronald Carroll, "Genetics: Conservation of Diversity within Species," in Gary Meffe and Ronald Carroll, eds., *Principles of Conservation Biology* (Sunderland, MA: Sinauer Associates, Second Edition, 1997), pp. 161–201; David Pimentel, Laura Westra, and Reed Noss, eds., *Ecological Integrity: Integrating Environment, Conservation, and Health* (Washington, D.C.: Island Press, 2000); Michael



- Soulé, ed., *Viable Populations for Conservation* (Cambridge: Cambridge University Press, 1987); Robert Peters and Thomas Lovejoy, eds., *Global Warming and Biological Diversity* (New Haven, CT: Yale University Press, 1992); Stephen Schneider and Terry Root, "Impacts of Climate Changes on Biological Resources in Status and Trends of the Nation's Biological Resources," in Michel J. Mac et al., eds., *U.S. Department of the Interior, U.S. Geological Survey* (Reston, VA, Vol. 1, 1998), pp. 89–116; Reed Noss, "Beyond Kyoto: Forest Management in a Time of Rapid Climate Change," in *Conservation Biology* 15 (2001): 578–590.
43. Smith, "To Speak of Trees," p. 365.
44. Peterson, "Environmental Ethics and the Social Construction of Ethics"; Demeritt, "What Is the 'Social Construction of Nature'?" pp. 778–779.
45. Soulé, "The Social Siege of Nature," in Soulé and Lease, eds., pp. 137–170; Kidner, "Fabricating Nature."
46. Hinchliffe and Woodward, *The Natural and the Social*, p. 155.
47. *Ibid.*, p. 3.
48. Robert Marshall, "The Problem of the Wilderness," in J. Baird Callicott and Michael P. Nelson, eds., *The Great New Wilderness Debate* (Athens, GA: The University of Georgia Press, 1998 [1930]), pp. 55–96.
49. Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1994 [1991]).
50. In her "Cyborg Manifesto" (Simon During, ed., *The Cultural Studies Reader* [London and New York: Routledge, 1999], pp. 271–291), Haraway takes issue with "totalizing tendencies of Western theories of identity" (p. 279)—and then proceeds to propound exactly such a suffocating theory in the guise of the "ontology of the cyborg" (p. 272).
51. "Wilderness Act of 1964," in Callicott and Nelson, eds., p. 121.
52. Doug Peacock, *Grievous Years: In Search of the American Wilderness* (New York: Henry Holt, 1990), p. 65.
53. Soulé, "The Social Siege of Nature," p. 137.
54. Kidner, "Fabricating Nature," p. 352.
55. Vandana Shiva, "Monocultures of the Mind," in *The Trumpeter* 10 (1993): 132–135.
56. Rolston makes a cognate point in noting that constructivist analyses of wilderness conflate epistemological and ontological dimensions of the concept. "Nature for Real," p. 54.
57. See Jack Turner, *The Abstract Wild* (Tucson: The University of Arizona Press, 1996), chapter 2.
58. In examining "the production of spaces in nature," Macnaghten and Urry include "the wilderness" with "zoos, Disney Worlds, nuclear plants, shopping centers, and military zones" (*Contested Natures*, p. 173).
59. J. Baird Callicott, "The Wilderness Idea Revisited: The Sustainable Development Alternative," in Callicott and Nelson, eds., pp. 337–366. See also Cronon, "The Trouble with Wilderness."
60. Aldo Leopold, "The Land Ethic," in *The Sand County Almanac* (Oxford: Oxford University Press, 1968 [1949]), pp. 201–226.
61. See Tom Butler, ed., *Wild Earth: Wild Ideas for a World out of Balance* (Minneapolis, MN: Milkweed Editions, 2002); Michael Soulé and Reed Noss, "Rewilding and Biodiversity: Complementary Goals for Continental Conservation," in *Wild Earth* 8/3 (1998): 18–28; Dave Foreman, "Wilderness Areas for Real," in Callicott and Nelson, eds., pp. 395–407; Holmes Rolston, III, "The Wilderness Idea Reaffirmed," in Callicott and Nelson, eds., pp. 367–386.
62. Max Horkheimer and Theodore Adorno, *Dialectic of Enlightenment* (New York: Continuum, 1969 [1944]).
63. Herbert Marcuse, *Eros and Civilization* (Boston: Beacon Press, 1966 [1955]), p. xxi.