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Ecocriticism, Literary Theory, and the Truth of Ecology

Dana Phillips

I. Literary Theory and the Truth of Ecology

N HIS CLASSIC 1975 ESSAY "Travels in Hyperreality," Umberto Eco asks a question still waiting for a good answer after twenty-five years: "Where does the truth of ecology lie?"¹ The last word of this question can mean more than one thing; but its ambiguity is scarcely coincidental, and seems very much in the Eco spirit. That spirit was strangely moved by a visit to the San Diego Zoo, famous for its animal habitats designed in accord with the strictest ecological rectitude. Of course, the Zoo is both a living museum and a theme park, where the resident grizzly bear at the time of Eco's visit was known not as Ursus horribilis but much less dauntingly as "Chester." The San Diego Zoo thus did nothing to disperse the atmosphere of hyperreality through which Eco made his way during his American travels. In fact, it heightened that atmosphere, and so Eco had to wonder: if in one of the nation's shrines to ecology the truth of ecology seems obscure, then where is that truth located? And how should we react when we find ecology present but made into a lie, as seems to be the case at the San Diego Zoo, given its apparently natural yet man-made labyrinths, and its conflicted allegiance to both science and the entertainment industry? Eco suggests that the double nature of the Zoo is a definitive instance of how our desire for the real can give rise to the hyperreal, to a culture in which imitations are the dominant form of reality. As his essay makes clear, the hyperreal is not just a bad idea or the product of a lapse in taste, but a full-blown cultural condition. You cannot escape the hyperreal by wishing things could be more authentic than they are. It is too substantial to be dealt with that way.

The paradox of the hyperreal is that while it is not quite real, neither is it unreal. This paradox is particularly frustrating with regard to the truth and the potential untruth of ecology. Discovering the truth of ecology is a lot more difficult than its popularizers have led us to believe, both because of the obscuring effects of hyperreality, and for two additional reasons as well: (1) Nature is complex; (2) Nature is thoroughly implicated in culture, and culture is thoroughly implicated in nature. By virtue of my own disciplinary training, the questions all this raises for me are these: what is the truth of ecology in so far as that truth is addressed by literature? How well does literature address that truth? These questions have begun to be asked in departments of English by ecocriticism, a new variety of critical thinking which opposes the blasé attitude toward the natural world predominant in literary studies. While I share their negative feelings about this blasé attitude, I doubt whether the ecocritics' preferred counter to it—a renewal of realism, at least where nature is concerned is all that powerful a response, based as it is on some dubious ideas about the nature of representation and the representation of nature. I would like, then, to add a third question to the ecocritical agenda, a question inspired by Umberto Eco: does the truth of ecology *lie* in literature?

The nature of representation is one of the chief concerns of literary theory, but the preponderance of theory is something else ecocritics dislike about current literary studies. Many of them do not want its help. This is unfortunate, in part because complaints about literary theory and its rumored excesses were a central feature of neoconservative rhetoric during the cultural debates of the 1980s and early 1990s. Although they have been sounding the alarm over theory in a new and a different register, ecocritics also run the risk of being labeled reactionary and getting lumped with the neoconservatives. They claim to be speaking, however, not on behalf of tradition, of which they are often critical, but on behalf of nature. And unlike 1980s and 1990s neoconservatives, they are not suspicious of theory's political implications, or of its attack on canonical Western literature; politically, an interest in the natural world can be quite volatile, even radical, and the canon is something ecocritics also would like to see changed. They are bothered, though, by theory's contention that nature is constructed by culture. The constructedness of nature is a basic tenet of postmodernism, poststructuralism, and other forms of theory sharing the same feeling of belatedness and the common conviction that representation is always already inadequate. The impatience of ecocritics with regard to theory is understandable, considering the hubris of the nature-as-culturally-constructed claim. Still, the prevailing dislike of theory among ecocritics often seems like an expression of impatience not only with theory but with any intellectual activity entailing traffic in abstractions, which is to say any intellectual activity with some philosophical bite and force. Ecocriticism may be reactionary after all, albeit in its own way.

To some observers the antitheoretical spirit of ecocriticism has seemed entirely laudable, a breath of fresh air—to use an expression which in this context is overdetermined. In a 1995 article in *The New York Times Magazine*, Jay Parini celebrated the formal debut of this new kind

of critique at a conference held that summer at Colorado State and attended by several hundred would-be ecocritics, myself included. He explained the provenance of ecocriticism by suggesting that it "marks a return to activism and social responsibility; it also signals a dismissal of theory's more solipsistic tendencies. From a literary aspect, it marks a reengagement with realism, with the actual universe of rocks, trees and rivers that lies behind the wilderness of signs."² This description is effusive, but accurate: Parini is reporting on what he learned in interviews with well-known practitioners of ecocriticism, including John Elder of Middlebury College and Lawrence Buell of Harvard University, whose work I address below.

One of the most interesting traits of ecocritical rhetoric is echoed by Parini: its merger of the jargon of ecology and environmentalism with, ironically enough, the jargon of literary theory. "The wilderness of signs" is a metaphor with which many theorists would be perfectly comfortable. Ecocritics ought to be less comfortable with such a metaphor, but they like to treat literary, ecological, and environmental concepts vaguely similar in their rough outlines as if they were exactly the same in their details. Thus the complexity of language, poetic language in particular, is seen as expressive of or even determined by the complexity of nature. Ecocritical analysis of literary texts then proceeds haphazardly, by means of fuzzy concepts fashioned out of borrowed terms: words like "ecosystem," "organism," and "wilderness" are used metaphorically, with no acknowledgment of their metaphorical status, as if literary, ecological, and environmental ways of speaking were a lot more compatible than they are, and as if their differences could safely be overlooked. English department colleagues who do not use the same metaphors, those who see no important or decisive connections between "the wilderness of signs" and the wilderness of pines, become the objects of scorn. And yet there are a number of assumptions that ecocritics share with their more theoretical but less environmentally aware colleagues, chief among them assumptions about the ontological gulf between culture and nature, and the metaphysics of representation supposedly required to bridge that gulf. After all, ecocritics have been to graduate school. But they often treat literary theory as if it were a noxious weed that must be suppressed before it overwhelms more native and greener forms of speech. The result is not so much a new kind of blessedly untheoretical discourse as it is a discourse propped up here and there by some distinctly shaky theory.

There are, then, more weeds growing in their own gardens than ecocritics have supposed. The contradictions of their antitheoretical polemic are already evident in Glen A. Love's 1990 article "Revaluing Nature: Toward An Ecological Criticism." Love was one of the first to identify the new trend, and in his article complains bitterly about how environmentally remiss members of English departments are. What he really has in mind, however, is not all of his colleagues, only "the fashionable critics and theorists" who prefer "ego-consciousness" over "eco-consciousness." Love ignores the fact that theory has not been very kind to ego-consciousness, either. For many theorists of the poststructuralist and postmodern persuasions, the ego-that is, the "subject"-is constructed, too, if not "dead" as an effective historical agent and object of critical interest. Excessive ego-consciousness or "solipsism," to recall Parini's term, is the least of theory's dangers. But then this sort of detail does not matter very much to Love, for whom "theory" and "theorists" are no more than fighting words. After a tideturning battle of theory and ecocriticism, he envisions "realist and other discourse which values unity rising over post-structuralist nihilism."³ To judge from what Love has to say on the subject, the ecocritical "dismissal" (again, Parini's term) of literary theory does not entail an understanding of theory, only a demonization of it as "nihilism."

Even more negligently, ecocritics have tended to ignore the recent history of ecology, and to assume that its representation of nature has been more successful than-in truth-it has. They often appeal to the scientific authority of ecology, an authority which they then exploit rhetorically as a moral and philosophical sanction for their own discourse, as Love does when he plumps for "unity" and implies that it is an "ecological" value. It is not, not anymore. The environmental historian Donald Worster notes that the ideal of the ecosystem as a model of unity, "of order and equilibrium," has been supplanted in recent ecological theory by "the idea of the lowly 'patch.'" "Nature," Worster reports, "should be regarded as a landscape of patches of all sizes, textures, and colors, changing continually through time and space, responding to an unceasing barrage of perturbations."4 Worster's characterization of recent ecological theory is supported by a similar sketch of the subject by Joel B. Hagen, who writes that the "new ecology emphasizes indeterminism, instability, and constant change."⁵ It appears, then, that ecology leaves us "with no model of development for human society to emulate."6 Ecology today thus might be said to be more like poststructuralism and less like the sort of values-rich, restorative, and recuperative discourse ecocritics have imagined it to be. Ecocritics have a knack for overlooking this irony, something they are bound to do since acknowledging it would make their celebratory discourse seem a little hollow.

A misprision of ecology much more thorough-going than Love's is evident, for example, in John Elder's *Imagining the Earth*. Elder assumes that "the inextricable wholeness of the world" is a phenomenon of both ecological and poetic import.⁷ That is, just as ecologists go about

documenting "the inextricable wholeness" of particular ecosystems, poets go about praising that same wholeness in verse. But that is not all. "Poetry," Elder writes, "becomes a manifestation of landscape and climate, just as the ecosystem's flora and fauna are."8 How much pressure are we to put on the "just as" of Elder's analogy between poem and ecosystem? Does he mean that poetry tends to be about landscape and climate, in the same manner that an ecosystem's flora and fauna are, in some loose sense, "about" the same things? Or does he mean that landscape and climate are deterministic of a region's poetry and of its flora and fauna, too: that the relationship between poetry, and landscape and climate, like the relationship between flora and fauna, and landscape and climate, is also a *causal* one? Regrettably, Elder seems to intend the analogy between poem and ecosystem in its stronger form. He does not appear to be bothered by the determinism inherent in his analogy, according to which the poet's subject matter is given by the poet's address. On this account, all poets must be regionalists because only regionalists are poets. That such is not the case seems only too obvious; literary history and natural history are, in this respect, disjoint. Poetry is not a "manifestation" of anything, apart from the conscious decisions and unconscious motivations of poets, and the structural and aesthetic effects of the genres and languages in which they write. To suppose otherwise is occult.

Elder's analogy is faulty on scientific as well as literary grounds. Throughout Imagining the Earth, he conflates the organismal concept of the ecological community with that of the ecosystem. The organismal concept was discredited as long ago as 1935, when A. G. Tansley published the landmark article in which the concept of the "ecosystem" was first put forward. Tansley intended the ecosystem to be understood not as organistic, but as mechanistic.9 The organismal concept of the ecological community appeals to Elder because it provides him with something like an objective correlative for his concept of poetry in a way that the concept of the ecosystem does not. Elder simply runs the two concepts together. He characterizes contemporary ecology as follows: "The science of ecology confirms the indivisibility of natural process: each feature of a landscape must be understood with reference to the whole, just as the habits of each creature reflect, and depend upon, the community of life around it" (IE 150). What Elder does not seem to realize is that the science of ecology has not been able to confirm "the indivisibility of natural process." Since the 1960s, ecology has had to divest itself, one after another, of vague concepts of this sort, of which the classic example is "everything is connected to everything else." Such concepts have not proved amenable to scientific confirmation, however ripe they may be for poetic affirmation.

Ecology when it counts as science tends to be a lot more reductive than Elder allows. If things were truly "inextricably" or indivisibly whole, there would be no science, much less any ecology. Thus many of the core concepts of ecology once notable for their expansiveness have in recent years been cut down to size, made more particular, or abandoned altogether. It now appears that even the ecosystem concept may not be valid biologically.¹⁰ But valid concept or not, an ecosystem is primarily a theoretical entity, and therefore could never be the reality that somehow underwrites poetry, even if that poetry is of the good old-fashioned, supposedly "organic" sort. Elder's attempt to found his hermeneutic of wholeness on what he takes to be bedrock ecological truths thus seems mistaken, even quixotic. He writes that "culture too may be understood organically: it is the field of relationship between organisms and, as such, a complex organism in its own right" (IE 169). But this assertion overlooks the difficulty that humans can be organisms, and their interactions can produce culture, without culture itself being an organism and-this is crucial-without culture itself being like an organism. Tansley's argument against the organic concept of the ecological community and in favor of the ecosystem followed a similar logic. Even if literary form and the form of ecological communities or ecosystems were similar—hard as it is to imagine in what, precisely, such a similarity might consist-that similarity would be so broad as to have little diagnostic significance. It would be just a coincidence.

In their flight from literary theory, ecocritics have ignored an inconvenient fact: a considerable body of what has to be called "theory" must be surveyed, at the least, before one can speak sensibly about ecology. Good intentions and a receptive attitude while out hiking or canoeing do not enable one to make ecological judgments. Enjoying a good read does not make one a literary critic. It should follow, then, that enjoying a good read about hiking or canoeing and sharing one's enthusiasm in lecture or print does not make one an ecocritic. Ecological realities are not necessarily more obvious than literary values, and they may beprobably are---much less so most of the time. It is unfortunate, then, that many ecocritics have elected to spend their efforts to date in addressing the issues raised for them by their disgruntlement with theory and celebrating a spuriously conceived "ecology" bearing little resemblance to the science which goes by that name. One has to notice that a lot of work calling itself "ecocriticism" has come in the form of preliminary, exploratory, accusatory, hortatory, and celebratory essays.¹¹ Only a few literary scholars have made sustained attempts to write ecocritically. Because his work has been most important in defining this emerging field of study, I now want to turn to a close examination of a recent book by Lawrence Buell, in order to give the reader as clear a

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picture as possible of the current state of play in ecocriticism. I will close with a discussion of Roger Tory Peterson's *A Field Guide to the Birds*, a discussion critical of ecocriticism as defined and practiced by Buell and others, but nonetheless intended as a piece of ecocriticism in its own right.

II. The Claims of Realism

Lawrence Buell's *The Environmental Imagination* attempts to lay the groundwork for environmentally aware readings of literary texts, and to suggest the shape that the ecocritical research program might take in the future. As a wide-ranging survey of those works of nineteenth and twentieth-century American literature that ecocritics should find of interest, *The Environmental Imagination* is a valuable book. Buell's treatment of his subject matter verges on the encyclopedic, and he has interesting things to say about Thoreau, his specialty, and about a diverse group of other writers, too, including Susan Fenimore Cooper, Aldo Leopold, Annie Dillard, and Leslie Marmon Silko.

Despite the book's virtues as a survey of a neglected aspect of literary history, I do not think that The Environmental Imagination resolves the theoretical imbroglio of ecocriticism. That is something that can be done only if one approaches literary theory without the lingering suspicion towards it Buell still feels. His treatment of theory initially seems less hostile than that of many of his ecocritical colleagues; he is willing, at least, to give theory some consideration. He argues that there is a need "to refine and reevaluate some of the basic analytical premises used by 'trained' readers of literature," and that "an inquiry into the environmental imagination forces us to question the premises of literary theory while using its resources to expose the limitations of literature's representations." Buell insists that such even-handedness will enable ecocritics to break through the force field of formalist self-containment which for so long cut texts off from the world, while avoiding the plunge into the universe of "intractable textuality" contemporary literary theory posits.¹² This balanced approach runs the risk of fence-straddling, but Buell adopts it in a principled way.

The principle to which he appeals most strongly is not a literary one. "Environmental praxis" is the solvent that allows ecocritics to undo the paradoxes engendered by a conflicted world of texts and readers of texts. Buell writes: "Ecocriticism' might succinctly be defined as study of the relation between literature and environment conducted in a spirit of commitment to environmental praxis."¹³ Appealing to the "spirit of commitment to environmental praxis" allows Buell to reject out of hand certain theoretical notions as either unhelpful or harmful, or both. In this way, he disposes of what seems to be a shibboleth for critics of the poststructuralist and postmodern persuasions: "The conception of represented nature as an ideological screen," Buell writes, "becomes unfruitful if it is used to portray the green world as nothing more than projective fantasy or social allegory." Much better to reject such "typical results of a metropolitan-based enterprise of academic criticism," and instead seek to recover a sense of the "experiential or referential aspects" of literature. With the "experiential or referential aspects" of literature in mind, one can treat literary texts not as detractions from but as contributions to our interaction with the natural world: "Vision can correlate not with dominance but with receptivity, and knowledge with ecocentrism," Buell writes. And he adds: "Contemporary literary theory, however, makes it hard to see this side of the story-and thus makes the prospect of environmental reorientation, of awakening from the metropolitan dream, more unlikely than it needs to be" (EI 430n20, 36, 82).

Buell is right to emphasize our capacity for intimate acquaintance with nature, over and against the tendency of some theorists to assume the entire otherness of nature and to question the efforts of natural science to learn something about that otherness. But though it may be true that "the emphasis on disjunction between text and world seems overblown," it is not at all clear to me how a "spirit of commitment to environmental praxis" is sufficient to join together what theory has supposedly put asunder (EI 84). The dissociation that theory induces may not be so easily cured. How does the "spirit of commitment to environmental praxis" on the part of ecocritics link up with the practice of environmental activists and working ecologists? Or is Buell speaking here only of ecocritical practice, in which case the "spirit of commitment" is, more or less, the "praxis"? Are ecocritics in the unenviable position of cheering on the efforts of those in other fields who are better able to engage directly-that is, professionally-in environmental activism and the production of ecological knowledge? If so, then ecocriticism would seem to be just another variety of academic agitprop.¹⁴

I do not think that this is all there is to Buell's position: he is making a much stronger claim. For him, literature and literary criticism can participate in "environmental praxis" directly and *in propria persona*. Here one notices a break or pivot point in his argument: he is not just saying that nature itself is something more than "an ideological screen," a "projective fantasy or social allegory," a proposition with which one has no trouble agreeing.¹⁵ He is suggesting that nature as described in literary texts is at least sometimes, and in certain texts is quite often, also something more than "an ideological screen," a "projective fantasy or

social allegory." And this proposition should give one pause: it seems at odds with the fact that ideology, fantasy, and allegory are basic to literature. They are not always the products of faulty style or "homocentric" and "egocentric" values, nor can they be dismissed as the projections of critics who have read too much theory. Buell, however, claims that the nature of literature and the nature in literature make it possible for ecocritics to work in "a spirit of commitment to environmental praxis," and to do so without fretting about the possible irrelevance of their professional behavior.

By making this claim, Buell taps the vein of not just realism but outright positivism which runs throughout ecocriticism. Its realism-cumpositivism explains why ecocriticism often seems to be a sort of rescue mission: both nonfictional and fictional references to nature-to the habits of animals, the round of the seasons, the folkways of farmers, the sense of place, and the like-are characterized by ecocritics as sweeping away the obfuscation of theory in a (counter)revolutionary (re)establishment of realistic literary priorities. Because literary theory made those priorities seem doubtful, Buell like other ecocritics is eager to expose theory's own shortcomings and overreachings. Thus one gets the feeling while reading The Environmental Imagination that Buell has embraced theory in a Delilah-like fashion, in order to shear it of its strength. This is implied when he suggests that one can utilize the "resources" of literary theory while questioning some of its "premises." That seems to amount to rejecting the "premises" of theory, such as the claim that a text can have no direct relationship with the world it represents, while retaining some of the abstruse flavor of theoretical rhetoric and even some of the intellectual framework theorists have constructed.

Unlike Buell, I believe ecocriticism needs a rationale that will enable it to use the "resources" of literary theory while retaining some respect for the force of theory's "premises," for it is surely the case that the "premises" of theory *are* its "resources." Unfortunately, adopting such a rationale means letting go of, or at least relaxing one's grip on, the central claim of Buell's book. This is the claim that ecocriticism should focus on recovering a sense of the "experiential or referential aspects" of literature. By pressing that claim, Buell like other ecocritics falls prey to the false hope that there is some beyond of literature, call it nature or wilderness or ecological community or ecosystem or environment, where deliverance from the constraints of culture, particularly that constraint known as "theory," might be found. Do not get me wrong: I think there is a beyond of literature. There is, for example, nature. I just think that nature cannot deliver one from the constraints of culture, any more than culture can deliver one from the constraints of nature.

What Buell means by "the experiential or referential aspects" of literature are its realistic aspects, and in The Environmental Imagination he often calls for a return to realism both in the literature of nature and among critics interested in that literature. The most important context for Buell's embrace of realism is the study of American literature, which has always been conducted in a spirit of advocacy of democratic and natural values-values often regarded as identical-over and against the hierarchical and artificial values of its European counterpart and forerunner. This is especially true of the study of the American Renaissance, the pre-Civil War period in which Buell is most expert, when democratic/natural values were the ones American writers cared about the most. Nature figured centrally in these writers' imagination of themselves and their country. Thus Buell's attempt to put nature once more at the top of the cultural docket might be seen as the restatement of a very old and familiar theme.¹⁶ He tries to generate an account of the environmental imagination from within the confines of a national literature long ago convinced, as it so happens, of its special relationship to nature. He recognizes that this conviction has always been based on a reductive view of "America-as-nature" (EI 15). Buell's own expansive project therefore involves filling out the details and working out the true consequences of the "America-as-nature" vision.¹⁷

To return to the most important point at issue, I wonder if a new or a recovered realism with regard to nature would be as restorative of clarity as Buell thinks. If ecocriticism limits itself to reading realistic texts realistically, its practitioners may be reduced to an umpire's role, squinting to see if a given description of a painted trillium or a live oak tree is itself well-painted and lively. I have read ecocritical essays that amount to little more than this kind of referee work. Literary realism privileges description, and even the sharpest description can seem inert if it does not occur in a narrative context heightened by philosophical or psychological or political or scientific interests, which need not themselves be "realistic" to have some real urgency.¹⁸ In other cultural arenas the pursuit of realism in the depiction of nature has produced a surfeit of kitsch. The best example of this is that school of wildlife art running mostly to depictions of heavily-antlered whitetail deer and of leaping largemouth bass gazing at the art and nature lover with a flat, fishy eye. The latter is an eye not unlike the eye of the dogmatic realist.

It also seems likely that realism of the literary variety is a creed outworn, a nineteenth-century aesthetic unsuited for the production and the understanding of art at the turn of the millennium. Literary realism has always been oriented more toward the social—that is, toward the artificial—than toward the natural world. Realism is, in fact, a "metropolitan" form, defined in American literature by the New York

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and Boston novels of James, Howells, and Wharton.¹⁹ Do ecocritics really want to promote environmental literature in the retrograde and potentially contradictory terms of realism? The result can only be a middle-brow literature of nature informed only by middle-class values, and too much contemporary nature writing is like that already.

Unlike Buell, I want to urge that the "ecocentrism" of literature *not* be understood to hinge on how well literature represents the natural world. Verbal representation is usually much weaker than visual representation, for one thing; that is why scientists discount the importance of scientific writing, and prefer whenever they can to express their ideas using graphs, charts, tables, diagrams, differential equations, and new technologies. For another, it seems to me that this way of putting the case sooner or later falls apart, just as it is said to do by the skeptics of modern philosophy and literary theory alike. Pointing out that the predictions of such skeptics are "overblown" does no good, since that result is one with which they are entirely comfortable; it is often their whole point. Skeptics are not moderates. Radical critiques intend to be overblown, to blow things apart: to deconstruct them.

Some of these worries and reservations have occurred to the author of The Environmental Imagination, which helps to explain why, in the chapter entitled "Representing the Environment," he makes his case for the value of literary realism in such an odd way.²⁰ Buell's version of the realistic representational scenario involves the notion of adéquation, which he borrows from the French poet Francis Ponge. Buell comes to Ponge indirectly, by way of Sherman Paul's book on American nature writing, For Love of the World. Paul describes adéquation as "a literary equivalence that respects the thing and lets it stand forth. Adéquation is not to be confused with correspondence. It is not a symbolic mode but an activity in words that is literally comparable to the thing itself."21 Paul understands adéquation as an attempt to skirt the edges of realism-ascorrespondence without lapsing into it. The notion of "a literary equivalence that respects the thing and lets it stands forth," however, seems too indeterminate, overly metaphorical, and vaguely Heideggerian, which is very vague indeed. Paul's further qualification of adéquation as "an activity in words that is literally comparable to the thing itself" is still a bit murky, largely because when Paul says that "an activity in words" is "literally comparable to the thing itself," all he means by "literally" is that you can, in fact, compare the "activity in words" to "the thing itself." He does not mean that the activity is a literal representation of the thing. Despite its murk, this second definition is somewhat more helpful than the first. What Paul is actually suggesting becomes entirely clear when he cites, as an example of adéquation, a passage from Thoreau's Cape Cod, a description of rolling breakers composed of a series of rolling periods:

adéquation is a variety of literary impressionism. Paul understands the concept as entailing a sort of mimesis in which the imitation of the object inheres in certain formal qualities not necessarily present at the level of the individual word, phrase, or clause. According to Paul, *adéquation* transpires when form becomes content, thereby freeing what is usually regarded as content from the gloomier prospects of referential specificity, wherein it might seem inadequate. *Adéquation* gives you some sense of the gist of the thing, without concerning itself overmuch about giving you the thing itself.

Buell makes different hay of the concept, which he says he finds too idealistic (EI 464n31). But his own gloss on adéquation is, I think, more idealistic than Paul's, not less. Impressionism, it could be argued, is relatively neutral with regard to representation. So Buell has to drain adéquation of its impressionistic implications in order to turn the concept into an armature of a more traditional form of realism. He writes that adequate literary representations involve "verbalizations that are not replicas but equivalents of the world of objects, such that writing in some measure bridges the abyss that inevitably yawns between language and the object-world" (EI 98). This gloss on the concept of adéquation bears traces of a lurking theory of correspondence, something Paul specifically rejects. And Buell shifts Paul's grammar as well as his meaning. "Equivalence," a general and qualitative feature of a certain kind of literary performance in Paul's account, becomes a more substantive and specific feature of "verbalization" in Buell's: it becomes the "equivalent." The distinction between the "equivalent" and the "replica" is a nice one, and I will try to give it cash value-to "measure" it-below. Of course, it may be no distinction at all, given that the two words are near-synonyms. As for "the abyss that inevitably yawns between language and the object-world," why does Buell credit this idea, so dear to those theories whose "premises" he wants to challenge? The thought that we can be systematically in touch with language, and by extension, with culture, and out of touch with "the object-world," with nature, is one that has broad currency in ecocritical circles, and it mistakes the character of both culture and nature. Once one accepts that our language is essentially representational, however, this mistake seems inevitable. Having made it, ecocritics spend their time trying to bridge a rift that does not exist. This last assertion will seem startling to some readers. All I care to say in defense of it here is that I am persuaded by the arguments of philosophers like Richard Rorty, Daniel Dennett, and Ian Hacking, to the effect that traditional philosophical worries about the ability of language to represent the world ultimately make no sense in the light of our evolutionary history and our scientific practices. The latter are two things I think ecocritics are bound to take seriously, along with the sort of antimetaphysical, pragmatic arguments Rorty, Dennett, and Hacking make. Ecocritics have not been taking those things and those arguments seriously, and in much of their work to date, discredited "correspondence" theories of representation are never more than a synonym or two away.²²

Buell mentions Roger Tory Peterson's A Field Guide to the Birds as a text which, despite the animadversions of theory on the possibility of its doing so, sustains a vital relationship with the world and is adequate in a fulsome, Pongean sense of the term. But appealing to Peterson does not allow Buell to make a case for the literary text's vital maintenance of the same relationship, because Peterson's is not a literary text. All he does, then, is invoke the *Field Guide* as a touchstone, before moving on to consider literary texts which, he argues, perform the same sort of representational and referential work. If a "stylized image" of a bird in Peterson's field guide can "put the . . . viewer in touch with the environment," then, Buell reasons, it is legitimate to expect that stylized literary images may do the same thing (*EI* 97).

After invoking Ponge and Peterson, Buell cites a few examples of literary works he considers models of *adéquation* and realism. Though each of these examples is highly problematic, only a couple of them need to be reexamined here. Buell first discusses a passage from Gerard Manley Hopkins's poem "Pied Beauty":

Glory be to God for dappled things,—
For skies of couple-colour as a brindled cow;
For rose-moles all in stipple upon trout that swim;
Fresh-firecoal chestnut-falls; finches' wings;
Landscape plotted and pieced—fold, fallow, and plough;
And all trades, their gear, and tackle and trim.

In the crucial moment of Buell's commentary on this passage, after noting the poem's polished artfulness, he exclaims:

But how delicately responsive the poem is to the stimuli it registers! Who would have thought to see trout's "rose-moles all in stipple"? In this way, aestheticism produces environmental bonding. Literally, the poet sees a painted fish; effectively, the aestheticist distortion animates the trout and makes its body palpable. There can be no question that this is a live trout shimmering for an instant in Hopkins's imaginary pool. With another glance, Hopkins evokes the feel and look of chestnut-falls, with another the mottled look of the agricultural landscape. (EI 98)

In short: "Spot-on, Hopkins!" It seems to me that if this commentary is intended as ecocriticism, then ecocriticism may benefit from a strong dose of formalism. Otherwise, it may lapse into the merely appreciative mode formalism—and after it, theory—was originally intended to correct and improve upon.

By implying that Buell's reading of Hopkins's poem is "merely appreciative," I mean to suggest that it is itself poetic, rather than critical. Such a reading invites quibbles it cannot resolve. For example, consider Buell's attempt to interpret what the poem "registers" as "stimuli." A list of categorical and therefore abstract terms like "all trades, their gear, and tackle and trim" cannot be covered by this rubric. But neither can an ostensibly more specific phrase like "fresh-firecoal chestnut-falls," of which it is very difficult to make mimetic sense. The "feel and look" of "fresh-firecoal chestnut-falls" is elusive, given the undecided, perhaps undecidable question of what they are: fallen chestnuts? fallen chestnut leaves? firewood scavenged from the dropped limbs of chestnut trees? the coals remaining from a fire built out of that wood? The phrase "fresh-firecoal chestnut-falls" seems motivated by Hopkins's desire to put across his point about the glory of God by creating "dappled" effects of language-alliteration, for example-to suggest that glory, even if he has to do so at the expense of meaning; rhythmic considerations also come into play here. Buell tries to enlist highly formal and self-referential aesthetic features of this sort in support of the realist reading they seem to militate against. That is why he claims that the poet "literally" sees "a painted trout" when, in fact, the trout in Hopkins's poem is "painted" only metaphorically. He employs such twists of logic because he wants his reader to accept the paradox that heightened artifice can effect a heightened perception of the natural: "There can be no question that this is a live trout shimmering for an instant in Hopkins's imaginary pool."23 But there are a number of questions to ask about such a trout, not least the question of whether an "imaginary pool" is the sort of habitat in which "live trout" fare the best. By trying to peg particular details in the poem to particular things in the world-to "stimuli"-Buell makes the originally expansive notion of adéquation seem reductive: "rose-moles all in stipple upon trout that swim" is a Buellian equivalent, which seems to be a replica after all. It is not an instant of Pongean adéquation.

It may be that the reading of poetry is not Buell's strong suit. The Environmental Imagination is chiefly a celebration of the strengths of what he likes to call "environmental nonfiction" or "environmental prose."²⁴ He complains that such prose is usually relegated to the ghettos of freshman writing programs and special-topics courses; I wonder if his undertheorized, contradictory approach to it does not afford some suggestion about why this might be so. Consider another of his examples of adéquation, this one from the natural history writer John Janovy Jr.'s

Keith County Journal. In a passage cited for its excellence by Buell, Janovy describes some of the habits of caddis flies living in a stream in western Nebraska:

One has to visualize the life of these insects beneath the rushing-hard cold of Whitetail three: some kind of food was coming down that creek in large amounts, at a very rapid rate, and was being trapped by these larvae. My mind goes back to the branches beneath Whitetail three. . . . there were many twigs and lesser branches along the banks, dangling and submerged, also covered with caddis flies. . . . The fact of these flies' dependence on twigs for homesites was impressive only until one looked at the larvae with a hand lens. Each larva lived in a house, constructed by itself. . . . One sensed no colony of caddis flies, as one senses a colony of cliff swallows, but rather sensed a set of instructions within each fly larva that chose twigs to build a house. . . .²⁵

While this description of caddis flies is entirely adequate, it does not seem to be so in a Pongean sense, because it is also perfectly prosaic. But Buell treats it as if it were as vivid and intense as Hopkins's poem, and as artful. He interprets Janovy's saying that one "has to visualize" the underwater life of the caddis flies, that his "mind goes back" to an earlier exploration of the river, and that one "senses" no collective identity for the caddis flies but only the working out of a genetic pattern, as evidence that "Janovy disclaims objectivity, reminding us that his image is a constructed thing," and that "the little narrative" about the caddis flies not living colonially is "a complete fabrication." Its being "a complete fabrication" does not mean that "the little narrative" is false, however; Buell concedes that Janovy's description of the caddis flies "comports with the entomological facts: the inner landscape is symbiotic with the outer." But since Janovy "could not possibly have seen" some of the things he reports, he has "to portray the scene," Buell argues, "with much more vividness and intensity and magnification than we would see it in the field" (EI 101, 102). But why does Buell think Janovy "could not possibly have seen" what he describes? Surely his "magnification" of the scene he describes is to be attributed to the hand lens he used to view the caddis fly larvae. Buell turns Janovy's literal magnification of those larvae into a metaphor, and adopts an initial position of skepticism about Janovy's description of the caddis flies he is only too eager to abandon when the time comes to celebrate the passage's realism.

In his readings of Hopkins and Janovy, Buell's skepticism is intended, one supposes, to be the more "theoretical" position. But it is only a caricature. Neither it nor the celebration of realism that follows so closely upon it is convincing: both are produced by what seem to be deliberate misreadings of the metaphorical as the literal and of the literal as the metaphorical. *Adéquation* will not bear the construction Buell attempts to impose on it. He seems to be suggesting that the power of environmental writing lies in the skillful way it plays peek-a-boo with a world it knows is there all along.

III. How To Use This Book

Let me further unpack the problems with the idea that "representation" is the essence of environmental writing, and with the idea that what is exciting about such writing is the narrative of discovery it relates even if that narrative is ersatz, by discussing the work of Roger Tory Peterson. Peterson's "field-mark" system is widely regarded as the most efficient and most effective way to identify birds under the poor conditions, such as color-obscuring glare, often encountered outdoors. A "field-mark" is any distinctive feature setting one species of bird apart from others, especially its near congeners: barred tail feathers, eyebrow ridges, a decurved bill, an unusual flight pattern. Peterson's illustrations highlight field-marks-occasionally, with arrows-and a student of the Field Guide learns to recognize a bird in terms of its abstract patterns of marking in so far as those patterns differ from others, rather than in terms of its overall body image or coloration, both of which can be remarkably similar across species, as well as remarkably variable within species. An experienced birder is de facto also an experienced "reader" of the Field Guide. Such a birder has the ability to identify juncos flitting through a patch of underbrush in winter merely by catching a glimpse of their white outer tail feathers, an ability which can seem inexplicable to the uninitiated. Lawrence Buell understands that it derives from the adequacy of Peterson's images, argues that the success of the Field Guide demonstrates "the capacity of the stylized image to put the reader or viewer in touch with the environment," and suggests that this capacity "is precisely what needs stressing as a counter to the assumptions that stylization must somehow work against outer mimesis or take precedence over it" (EI 97-98).

I do not think that the example of Peterson's *Field Guide* makes Buell's case, not in the way he says it does. Buell is right to claim that texts can offer ways of getting in touch with the world. But his brief account of how Peterson's text does that is too simplistic. First of all, it seems to me that Peterson's illustrations do, in fact, "work against outer mimesis," in the sense that many of them—for example, the silhouettes showing the characteristic forms of accipiters, falcons, and kites when viewed from below—are less than mimetic *by design*. This point is made by Peterson himself in the "How To Use This Book" chapter of the *Field Guide*'s first edition. Regarding his illustrations, he writes: "As they are not intended

to be pictures or portraits, all modelling of form and feathering is eliminated where it can be managed, so that simple contour and pattern remain. Even color is often an unnecessary, if not, indeed, a confusing, factor."26 In other words, the Field Guide is mimetically parsimonious, and deliberately so. Peterson's illustrations are abstractions based not only on the illustrator's field experiences, but on what might be called the consensus image of a given species as recorded in the ornithological literature. They are not the simple products of observation: they emphasize certain aspects of avian physiology at the expense of others which, in fact, may be equally visible to an observer but are less significant for purposes of identification. And they have a formal quality not observable in the real world. Most of the birds in the Field Guide are shown in side view, as if they had posed for police mug shots. Wild birds will not oblige you by turning to the right on request. Nor will they spread their tail feathers, erect their crests, flash their wing-bars, or in any way indicate what sets them apart from other, similar birdsprecisely why seeing a field-mark is considered "diagnostic," should you be so lucky as to see it.27

This may seem picayune, I realize, and it invites a quarrel about the meaning of the word "mimetic." A similar quarrel could be had about the meaning of "stylization," for that matter. Very well, then: this is the second point Buell's claim about Peterson fails to consider. Mimesis presumes the sameness of the representation and the represented object. Earlier field guides, and the Peterson guide's inferior contemporaries, depict birds mimetically and in their natural habitats, according to the techniques of bird portraiture as refined by painters like Audubon. Peterson's Field Guide is only incidentally mimetic, precisely because his great innovations were to base his field-mark system on the diagnostic difference between one bird and another, and to ignore many of the conventions of bird portraiture in the manner of Audubon and others, opting instead to portray his avian subjects more schematically-and I would argue, in a notably less "stylized" way. Mimesis is synthetic; the images in the Field Guide are splendidly analytic. They are, to retranslate and modify the term Buell borrows from Ponge, merely adequate. And the merely adequate image is not the same as a realistic image of the sort Buell celebrates; the merely adequate image may eschew realism altogether, and it seems a lot less exciting aesthetically. The Field Guide reduces the visual field and makes ornithology portable, as the Double Elephant Folio edition of Audubon's Birds of America, which might have been a better text for Buell to ponder as an exemplary work of realism, does not. Peterson's drawings are intentionally less vivid than Audubon's, in order to convey more information about each species, so that "live birds may be run down by impressions, patterns, and distinctive marks"

by birders in the field, as Peterson puts it in his 1934 preface (FGv-vi). Running down live birds in this way means that the Peterson-trained birder does not look for the whole bird or the bird-in-itself.

Buell's celebration of Peterson's Field Guide in terms of its usefulness as a text also seems problematic for a third reason: he provides no description of its actual use. Doing so calls further into question its status as a touchstone of realism. Using Peterson's guide is not, after all, simply a matter of perusing it and matching up a visual representation in the text with the visual appearance of a bird in the field: more than that is required to identify the bird in hand-the bird, that is, in view through a pair of binoculars-with the bird in the bush, as novice birders soon learn. Peterson's field-mark system encourages a process of "identification by elimination." In "How To Use This Book," Peterson explains the logic behind this process: "It is often quite as helpful to know what a bird could not be as what it might be" (FG xx). The user of the Field Guide therefore must consult both its illustrations and the book's other resources, such as the descriptive text accompanying each illustration on the opposite page, in order to decide "what a bird could not be." If that description does not settle the issue of a bird's identity, then the birder must resort to the habitat maps in the back of the book (included in its recent editions). "Field-marks," it should be clear, are not limited to visual features, but also comprise things like geographic range, habitat preferences, typical behaviors such as interspecial flocking, and flight patterns. Such being the case, the birder must become a "reader." And the "reader" of Peterson is not like the reader of Thoreau, say, or Annie Dillard: the *Field Guide* is not a narrative. It is more like a cookbook, or a piece of software; the new CD-ROM version is a piece of software. The adequacy of Peterson's images is not a quality they possess inherently, then, and impress upon "readers" in the course of their perusal of the Field Guide front to back. The adequacy of Peterson's images evolves out of their use by birders. I do not think the same can be said of Thoreau's images in Walden, or of Dillard's in Pilgrim at Tinker Creek; of Thoreau's images, not very often, and of Dillard's, almost never.

Establishing the identity of Black-capped as opposed to Carolina Chickadees may turn out to be surprisingly complicated, and I am making these species exemplary precisely because they are so common. Suppose that an inexperienced birder glimpses an apparently nondescript chickadee while out for a winter walk on a gloomy day in the Poconos of northeastern Pennsylvania. Because it is cold, the chickadee in question is ruffled in appearance, its winter-worn feathers elevated for the sake of the insulation they provide. And it is flitting about, feeding actively in the last remaining hour of daylight. Flipping through the *Field Guide*, the birder first realizes that either version of the chickadee's

song-chick-a-dee-dee, or the same thing, but higher pitched-is plausibly what she has just heard.²⁸ Next she looks once more at Peterson's illustrations, and realizes that she did not see the characteristic white wing-stripe of the Black-capped. Then she reads Peterson's discouraging note about poor conditions ("season, wear, angle of light, etc.") and has to confess that her not having seen it does not mean that the white wing-stripe was not there. Despairing, she consults Maps 246 and 247, and realizes that she has chosen that day to go for a walk in one of those liminal areas the maps chart. According to a note on Map 246, the Black-capped is known to winter south of its normal range in some years, and the note to Map 247 points out that the Carolina's range "slightly overlaps" that of the Black-capped. To make matters worse, Map 247 reiterates the text's warning that the two species "mingle at times and hybrids are known." Finally, our conjectural naturalist, her attention wandering, notices that Map 248 shows the range of something called the Boreal Chickadee, which is "casual south to n. Ill., Ohio, Pa., N.I., Md.," but only in "chickadee flight years," a phenomenon that is not described.²⁹ Could she possibly have seen this rare visitor to the Poconos? Could the chickadee she glimpsed have been a sport of nature, a hybrid, or something even more teratological? Could she have picked a worse time and place to go for a walk, and put Peterson to the test?30

This birder is now confronted with a variety of interpretive options. Fortunately, there are protocols to be followed in cases like hers. But in order to decide which of the two, possibly three, kinds of chickadee it is that she has just seen, she is going to have to rely on something more than just the resources provided by text-in this case, Peterson's-and world, where it is now that dark night in which all chickadees are black. It will help her, of course, to become a better "reader"-a better userof Peterson's guide, to figure out what he means when he says that a bird is "casual" in a given area and to learn what "chickadee flight years" are. She may have to consult other field guides, a regional bird list, back issues of Birder's Digest and Birder's World, audio and video recordings, the National Audubon Society's Interactive CD-ROM Guide to North American Birds, and perhaps even the rare bird alerts posted at http://www.virtualbirder.com. She might have to go back out and beat the bushes more aggressively the next day, intervening, if need be, in the chickadee's life by "pishing" (mimicking the bird's alarm call) in order to encourage it to show itself to her. She may need to buy a new pair of binoculars. All of this is what habituated users of Peterson's Field Guide might do in such cases, which are by no means unusual or atypical. The "stylized image" has not put the user of the guide in touch with the environment, as Buell argues. In this instance, guite the

reverse has happened: the environment has put the user of the guide in touch with the "stylized image." And that "transaction," as Buell calls it, in turn puts her to considering another stylized image, and yet another, while she returns, now and again, to the environment for fresh impressions (*EI* 97). Every transaction entails further action. She is going to have to engage in a lot of this back-and-forth—between text and world, and world and text; between "stylized image" and bird, and bird and "stylized image"—if she really wants to know what kind of chickadee she saw. I think that it is this going back and forth between text and world, and between nature and culture, and the development of tools and techniques, like binoculars and computers and "pishing," to enable it, which gives a notion like getting "in touch with the environment" whatever worth it may have: a fourth reason why Buell's use of Peterson as a touchstone of "outer mimesis" seems mistaken.

All this means that Peterson's Field Guide is more like the perpetually open texts celebrated by recent theory than Buell recognizes: no "reading" of the Field Guide ever achieves "closure." This, indeed, is one of the book's virtues, a sign not of its shortcomings but of its usefulness, and explains why copies of it are often dog-eared. At the same time, Peterson's text is probably less like the sort of text Buell really wishes to celebrate, in that it is more constrained, more scientific, and more resourceful, working in more than one medium and form to help put us in touch with the natural world. In short, Peterson's text also invites guibbles. But these guibbles have much less to do with that text's vagaries than with the myriad ways in which differences between species have ramified in the course of avian evolution. This should remind us that scientific realism and literary realism are not only not the same thing, they may even be opposed to one another. Scientific realism may be less "realistic," in the sense in which Buell uses the term, than literary realism, because it is less reliant on representation. But the consequences of scientific realism are immediate, while the consequences of literary realism, if it has any, are not. In the admirably deliberate "How To Use This Text," Peterson urges those who wish to employ the fieldmark system to recall a salient fact: "The ornithologist of the old school seldom accepted a sight record unless it was made along the barrel of a shotgun." As a surrogate of sorts for shotguns, the field-mark system also should be handled with care: "A quick field observer who does not temper his snap judgment with a bit of caution is like a fast car without brakes." "How To Use This Book" is, then, a cautionary text (FG xxi).³¹

Literary texts are rarely cautionary or cautious in the same way. Suppose that a reader of Thoreau should conceive a desire to hear the screech owl call just as Thoreau heard it one lonesome night. In the chapter of *Walden* entitled "Sounds," Thoreau paraphrases the screech owl's call as "*Oh-o-o-o that I never had been bor-r-r-n!*"³² This paraphrase is not unlike the versions of birdcalls Peterson offers in many of the entries in his guide. But Peterson declines the opportunity to paraphrase the screech owl's call. He describes it in fairly abstract terms as a "mournful whinny, or wail; tremulous, descending in pitch. Sometimes a series on a single pitch."³³ Peterson is more circumspect in this case, I think, for the simple reason that the screech owl's call is unparaphrasable. That is, it is not amenable to the sort of verbal treatment Thoreau attempts to give it. As a representation of the screech owl's call, "*Oh-o-o-o that I never had been bor-r-r-rn!*" is faulty on two counts, then: (1) It is a trite expression; (2) It sounds nothing like a screech owl. It will not put Thoreau's reader in touch with the world.

I have used Thoreau as a straw man in order to make the following and final point with regard to Buell's advocacy of a return to realism: celebrating literature that points to the world is no way to counter the antirepresentational claims of literary theory. There is no doubt that literature can be realistic and even in some limited sense representational: it can point to the world. That is, it can point to some carefully circumscribed aspect of the world which it must describe and locate in more or less detail for a competent reader who understands what it is trying to do. That kind of representation, as opposed to the ideal sort indicated by Buell's use of the term "mimesis," is conventional: elaborate protocols of cultural competence must always be followed by both speaker and auditor, writer and reader, in order to make realism operational. Otherwise, one is apt to misinterpret a sentence like the following, from Howells's The Rise of Silas Lapham, as a description of something much more macabre than the perfectly ordinary gestures Howells means to describe: "He did not rise from the desk at which he was writing, but he gave Bartley his left hand for welcome, and he rolled his large head in the direction of a vacant chair."34 Realism is idiomatic. It works only when interlocutors share similar assumptions about what is perfectly ordinary and its proper description; such sharing is not universal. It may be quite rare. Point at something for the benefit of your new Labrador puppy, and it will stare at your finger. Speak to your puppy, and it will not regard your speech as a representation of how things are, but as a call to action of some kind or another: Fetch! Bark! It's time for a walk! Mimic the call of the screech owl according to Thoreau ("Oh-o-o-o that I never had been bor-r-r-r-n!"), and your friend, no matter how competent his woodcraft, may express concern for your wellbeing. Repeat verbatim Peterson's description of the same call, and the results will be a little better, if your friend thinks he has heard something like that before. Learn to whistle like a screech owl, and the results will improve dramatically. But would we want to call your whistling a literary performance? Or-the more extreme alternative-would we want to treat it as a model of literary performance?

I think we would balk at that; so would Lawrence Buell (and so would other ecocritics who have also argued for a return to realism). But on what grounds? If successful "outer mimesis" is the acid test of the environmental imagination, then Buell, if he is serious about returning to realism, is going to have to admit some unliterary but realistic texts and some literal-minded but realistic works of art, like duck decoys, into his canon of works worthy of praise and-here is the rub-critical attention. On this score, Buell has the courage of his convictions, at least where literature is concerned: he enthusiastically praises hitherto critically-neglected works like Susan Fenimore Cooper's Rural Hours, an account of mid-nineteenth century life in Cooperstown, New York, and a book long regarded as a minor work of Americana at best. But for consistency's sake, Buell may have to begin treating other texts which seem indisputably literary-Walden, for example: Thoreau, after all, was not a realist—as less valuable than they have been thought to be. He may be much less willing to do that.

The contradictions at the heart of Buell's arguments in The Environmental Imagination are ones that have become characteristic of ecocritical discourse in general. Though Buell asserts that an inquiry into the environmental imagination involves an exploration of the "limitations of literature's representations" in the light of recent literary theory, his desire to explore those limitations is not nearly so strong as his desire to flout the warnings of theory about the naivete of realism. Like other ecocritics, and many environmentalists, he imagines that to think ecologically and environmentally is to recover the habits of thought of some era in the past before the disruption of the human and natural worlds by a heedless agriculture, a runaway industrialism, the loss of faith, the discovery of relativity, the embrace of modernism, and the advent of the postmodern. And he seems to believe that those habits of thought were somehow untheoretical. But to imagine that the solution to the environmental crisis involves a return to the past-"awakening from the metropolitan dream"-ignores the fact that our understanding of the environment has come about through the disruption of nature by agriculture and industrialism and the concomitant rise of science. Without environmental crisis, in other words, there might be no "environmental imagination." At best, there would be only a very attenuated one. Nor might there be ecologists struggling to understand and repair the mechanisms of a damaged natural world. We would still be living in the era of "natural history." There is considerable irony in the fact that in order to begin to understand nature, we had first to alter it for the worse. Four-square realism may not be the world view best

suited to helping us understand that irony, just as a sense of place of the sort displayed by Cooper in *Rural Hours* or by Thoreau in *Walden* will not prepare one for life in present-day Cooperstown or Concord, much less for the complexities of acid rain, global warming, and a host of other environmental ills. Today, the real is contested not only in the academy, but in reality, whether that reality is hyperreal or not.

PHILADELPHIA, PENNSYLVANIA

NOTES

1 Umberto Eco, "Travels in Hyperreality," in his *Travels in Hyperreality*, tr. William Weaver (New York, 1986), p. 49.

2 Jay Parini, "The Greening of the Humanities," The New York Times Magazine (29 October 1995): 52.

3 Glen A. Love, "Revaluing Nature: Toward An Ecological Criticism," Western American Literature, 25,3 (Fall 1990): 205, 212. Another story is also being told in Love's article: he argues that writers and critics of Western American literature are especially adept at achieving and appreciating "eco-consciousness"—presumably because of the epistemological advantage they derive from living under Western skies—and he suggests that this deftness may serve as something of a corrective to the hyper-sophistication, the indifference to nature, and the elitism of intellectuals from either of the two coasts. He makes this suggestion much more directly in a follow-up piece, "Et in Arcadia Ego. Pastoral Theory Meets Ecocriticism," Western American Literature, 27,3 (Fall 1992): 195–207.

4 Donald Worster, "Nature and the Disorder of History," in *Reinventing Nature*?, ed. Michael E. Soulé and Gary Lease (Washington, D.C., 1995), pp. 73–74.

5 Joel B. Hagen, An Entangled Bank; The Origins of Ecosystem Ecology (New Brunswick, N.J., 1992), p. 194.

6 Worster, "Nature and the Disorder of History," p. 72. Worster himself has recognized the challenges ecology faces in a disorderly world only recently. His 1977 book *Nature's Economy: A History of Ecological Ideas*, 2nd ed. (1977; Cambridge, 1994) presents a remarkably utopian view of ecology, a term Worster then used very loosely, applying it to the work of literary figures like Gilbert White and Thoreau. It is worth noting that *Nature's Economy* is usually the only history of ecology cited by ecocritics. The shortcomings of ecocriticism in this respect have been addressed by William Howarth in his essay "Some Principles of Ecocriticism" in *The Ecocriticism Reader*, ed. Cheryll Glotfelty and Harold Fromm (Athens, Ga., 1996), pp. 69–91.

7 By "inextricable," Elder apparently means something that is both all of one piece or indivisible, and inseparably bound up with a particular place.

8 John Elder, Imagining the Earth; Poetry and the Vision of Nature, 2nd ed. (Athens, Ga., 1996), pp. 1, 39; hereafter cited in text as IE.

9 A. G. Tansley, "The Use and Abuse of Vegetational Concepts and Terms," reprinted in *Foundations of Ecology; Classic Papers with Commentaries*, ed. Leslie A. Real and James H. Brown (Chicago, 1991), pp. 318–41.

10 Today ecologists recognize that the ecosystem concept is beset by a variety of theoretical and practical problems: difficulties in the initial identification of ecosystems, as distinct from the grosser forms of the landscape; questions about the status of the ecosystem as a biological entity, since its constituent parts are not genetically related; obstacles to determining the relative importance of organic versus inorganic processes in

ecosystem maintenance; doubts about the applicability of quantitative techniques to natural phenomena; problems of scale in experiment design; and so on. Attempts to use the ecosystem concept in experimental practice have yielded very mixed results. On theoretical debates in contemporary ecology, see the final sections of the second edition of Worster's Nature's Economy; R. P. McIntosh, The Background of Ecology: Concept and Theory (New York, 1985); Daniel B. Botkin, Discordant Harmonies; A New Ecology for the Twenty-First Century (New York, 1990); R. H. Peters, A Critique for Ecology (Cambridge, 1991); Frank Golley, A History of the Ecosystem Concept in Ecology; More Than the Sum of the Parts (New Haven, 1993); Sharon E. Kingsland, Modeling Nature; Episodes in the History of Population Ecology, 2nd ed. (Chicago, 1995); Stephen Budiansky, Nature's Keepers; The New Science of Nature Management (New York, 1995); David Quammen, The Song of the Dodo; Island Biogeography in an Age of Extinctions (New York, 1996).

11 A representative sample of early work in the field is available in the convenient form of *The Ecocriticism Reader* (my essay "Is Nature Necessary?" is included in this volume).

12 Lawrence Buell, *The Environmental Imagination; Thoreau, Nature Writing, and the Formation of American Culture* (Cambridge, Mass., 1995), pp. 5, 11; hereafter cited in text as *EI*.

13 "Praxis" is a term from the Marxist theoretical tradition implying not just practice, but the ideological assumptions undergirding and/or deriving from practice. Whether Buell intends the word to have a Marxist flavor is doubtful, since its theoretical implications cut against his insistence on the grounding of ecocriticism in real-world, nonideological activities. Compare Cheryll Glotfelty's somewhat less qualified definition of ecocriticism: "Simply put, ecocriticism is the study of the relationship between literature and the physical environment... ecocriticism takes an earth-centered approach to literary studies" ("Introduction: Literary Studies in An Age of Environmental Crisis," *The Ecocriticism Reader*, p. xviii).

14 Cheryll Glotfelty also raises this question of disciplinary relevance in her introduction to *The Ecocriticism Reader*. "How then can we contribute to environmental restoration, not just in our spare time, but from within our capacity as professors of literature?" (p. xxi). 15 And not exactly the proposition theorists have put forward, either; Buell's paraphrases of theoretical positions are unreliable. This weakness in his argument is due, I think, to the way he—like other ecocritics—treats "theory" as a generic term, while not hesitating to appropriate and to redeploy theoretical terms like "praxis" in nonidiomatic or watered-down ways.

16 This also helps explain, by the way, his peculiar use of the word "metropolitan," which he borrows from postcolonial theory and which expresses a certain resentment of Eurocentric values seen as oppressive by the less metropolitan. In fact, Buell has attempted to characterize American literature as "postcolonial": see his essay "American Literary Emergence as a Postcolonial Phenomenon," *American Literary History*, 4 (Fall 1992): 411– 42.

17 The somewhat prophetic quality of the rhetoric Buell employs has to do not just with his sense of the urgency of his project for literary studies, but with the other context in which his work must be understood, that of the American environmental movement. Many environmentalists are possessed by evangelical fervor, and tend to speak in the language of the converted. This rhetorical strategy has backfired in the past, when intemperate claims about environmental matters were shown to have been just that (R. P. McIntosh discusses some of the excesses of popular "ecological" discourse during the 1970s in *The Background* of *Ecology*).

18 This is precisely why so much environmental writing takes the form of the jeremiad, a form which can be somewhat at odds with the desire to produce a clear-eyed appraisal of the truth of ecology.

19 A novel like Adventures of Huckleberry Finn might be put forward as a counterexample to my claim here. But I do not think it is an exception to the rule that realism is social and metropolitan. Twain's frontier setting is one in which the kinds of social norm that are the determining cultural factors in realist fiction are very much in flux; thus the novel's focus on frontier violence. The real is precisely what is at stake socially and culturally in the novel. As for the natural world, the Mississippi River provides Huck and Jim with only the most temporary of havens from the social turmoil which continually interrupts Huck's narrative, and very little of the novel's descriptive content has to do with the river. I would argue that a "frontier realism" is a contradiction in terms: if realism is possible, then the frontier is more or less "closed" (as in, for example, Owen Wister's *The Virginian*).

20 Buell notes in the course of this chapter that a number of studies published in the 1980s argued for the constructed character of American realism, but maintains that such studies tended to overstate their case. No doubt he has a point, but it seems to me that Buell ignores the polemical intent of the overstatements he rejects, and thus avoids seeing some of their implications for his own point of view.

21 Sherman Paul, For Love of the World; Essays on Nature Writing (Iowa City, 1992), p. 19. Buell cites Paul's book as the source which first made him aware of Ponge in The Environmental Imagination, 464n31.

22 See Richard Rorty, Philosophy and the Mirror of Nature (Princeton, 1979) and Consequences of Pragmatism (Minneapolis, 1982); Daniel C. Dennett, Consciousness Explained (Boston, 1991) and Darwin's Dangerous Idea; Evolution and the Meanings of Life (New York, 1995); Ian Hacking, Representing and Intervening; Introductory Topics in the Philosophy of Natural Science (Cambridge, 1983).

23 It may seem that Buell is doing much the same thing with "Pied Beauty" that Sherman Paul does when he reads the passage from *Cape Cod* as echoing the waves it describes in the textures and rhythms of its prose. But the two cases are quite different: Buell does not claim that Hopkins' poem as a whole reflects the overall structure of a particular experience of the natural world (since the poem is a sonnet, that would be a very difficult claim to make). His much more ambitious claim is that the discrete details of "Pied Beauty" have a one-to-one relationship to particular moments of an experience of the natural world—to "stimuli." Paul is concerned to render form as a kind of higher-order content; Buell is concerned to preserve content as such, and regards form as one of the many varieties of aesthetic seasoning.

24 See The Environmental Imagination, 429n16.

25 John Janovy, Jr., Keith County Journal (Lincoln, 1978), p. 105 (my ellipses).

Roger Tory Peterson, A Field Guide to the Birds; Giving Field Marks of All Species Found in Eastern North America, Facsimile ed. (1934; Boston, 1996), p. xix; hereafter cited in text as FG. The argument I am making with regard to Peterson's Field Guide to birds is strengthened, I think, by considering other field guides, such as A Field Guide to Wildflowers, also illustrated by Peterson and arguably even less mimetic than the Field Guide to birds. The great majority of its plates do not show color, because there is no need for it: the green of foliage is presumed throughout, and the tint of blossoms is indicated by a legend printed in the upper righthand corner of each righthand page. The illustrations of individual wildflowers mostly consist of simple, unshaded line drawings of their flowering parts, with a few leaves. The visual impoverishment of these illustrations is a principle of the wildflower guide's organization, and is enabling for purposes of identification, just as it is in Peterson's guide to birds. See Roger Tory Peterson and Margaret McKenny, A Field Guide to Wildflowers of Northeastern and North-central North America (Boston, 1968).

28 Identifying a chickadee by judging the pitch of its call is, of course, a feat that can be performed only if one is already intimately familiar with that call. Peterson's indication that chickadee calls differ in pitch would be of very little use to our novice.

29 Roger Tory Peterson, A Field Guide to the Birds of Eastern and Central North America (Boston, 1980), p. 210; Maps 246, 247, 248.

30 In the *Field Guide*'s first edition, Peterson offers a scenario similar to, but more hopeful than mine: "We may, for example, be puzzled by a bird that is certainly a female Merganser. A consultation of the brief descriptions of those birds eliminates the Hooded Merganser because the bird sought had a reddish head—not a dark one. It was seen on the coast which, so the text tells us, increases the *probability* it was a Red-breast. And finally, we learn that in the Red-breasted Merganser 'the rufous of the head *blends* into the white of the throat and neck instead of being sharply defined' as in the American Merganser. This characteristic, which accurately describes the bird we have seen, makes the identification certain. This soft merging is clearly shown in the plate but because we had not known what to look for, we failed to notice it" ("How to Use This Book," pp. xvii–xviii).

31 If Peterson's warning against ornithological snap judgments seems a bit heavyhanded, consider the possible consequences of incautious identification in other areas of natural history, such as mycology. Because the objects of their interest are often poisonous, as birds never are, mushroom hunters have to be especially circumspect, and the field guides they use reflect the solemnities involved in making sound identifications of mushrooms.

32 Henry D. Thoreau, Walden, or Life in the Woods (New York, 1991), p. 102.

33 Peterson, A Field Guide to the Birds of Eastern and Central North America, p. 172. Other field guides also avoid the temptation to reproduce the screech owl's call. In the Audubon Society Master Guide to Birding, vol. 2, ed. John Farrand, Jr., Sadie Coats describes it in a manner similar to Peterson's: "Song a long 'whinny,' beginning on a rising pitch and quickly descending with a pronounced quaver. Also a rapid trill on 1 pitch, variable in length, usually growing louder toward end. Short barks or yelps also given" ([New York, 1983], p. 160).

34 William Dean Howells, The Rise of Silas Lapham (New York, 1963), p. 5.