## THE ECOLOGY OF VICTORIAN FICTION

I

IN THE PAST ten years or so, ecological literary criticism—that is, ▲ criticism concentrating on the relationship between literature and the natural environment—has become one of the fastest-growing areas in literary study. Ecocritics now have their own professional association, their own academic journal, and an impressive bibliography of scholarly studies. Ecocritical scholars divide their attention between "nature writing" and ecological themes within all literature. In other words, some scholars write on Thoreau, John Muir, Aldo Leopold, and Annie Dillard; others write on topics such as the representation of nature in romantic poetry, the American West as a symbol, metaphors of landscape, or Dante's Inferno as a polluted ecosystem. Ecocritics have a distinct subject matter, and they share in a certain broad set of attitudes, values, and public policy concerns, but they do not yet have a firmly established framework of commonly accepted theoretical principles. In the absence of any overarching theory, ecocritics have usually sought to incorporate their ecological subject matter within other, already established theoretical schools: feminism, Bakhtin's dialogism, Lacanian psychoanalysis, or English romantic and American transcendentalist, idealist philosophy. Most commonly, ecocritics have affiliated themselves with the standard contemporary blend of Foucauldian ideological criticism—a blend that is vaguely Marxist and Freudian, generally radical, and strongly tinctured with deconstructive irrationalism and textualism.1

Given its specialized themes and topics and its ready affiliation with the standard theoretical blend, ecocriticism might seem little more than a special topic area within the general field of contemporary literary study. But ecocritics do not see their approach that way. They share in a feeling of being at the forefront of critical response to an urgent practical problem of world-historical magnitude: the prospect of irreversible environmental devastation. They thus have a strong sense of a political mission, and they often feel that the urgency of their environmental concerns should sanction realigning the canon to give much greater prominence to nature writers and to the study of ecological themes. In their view, the natural world claims a special status as the ultimate ground and frame of all existence. It is an object of peculiar veneration and of primary experiential importance.

The special conceptual status of ecology as a theme and a topic necessarily raises a question about its theoretical import. If the subject of ecocriticism is the relation of literature and the natural world, and if this relation is more important and more elemental than any other concern, does it not follow that ecocriticism should identify itself as a matrix for all literary study? To put the question operationally, in what way could ecology, as a subject matter and a concept, generate a theory of literature? Since the relation between organisms and natural environments is a necessary precondition of all experience, one could reasonably argue that the special topic of ecocriticism is more elemental than the topics of feminism, Marxism, or any other form of political criticism, and that the basic physical conditions of organic life take conceptual precedence over semiotics and theories of "culture" and "discourse."

I shall argue that ecology cannot by itself generate a theory of literature or serve as the basis for a theory of literature, but I shall also argue that responsiveness to the sense of place is an elemental component of the evolved human psyche and that it thus can and should be integrated into a Darwinian literary theory. E. O. Wilson's notion of "biophilia" provides a Darwinian alternative to the ecological transcendentalism of "deep ecology," and the evolutionary epistemology of Konrad Lorenz provides a Darwinian rationale for locating the human psyche within its physical world. In constructing a bridge between the evolutionary epistemology of Lorenz and the idea of place within verbal narrative, I shall make use of a new branch of Darwinian aesthetics, Joseph Anderson's "ecological" version of "cognitive film theory."

In order to illustrate the ways in which setting can be integrated into a Darwinian literary criticism, in the latter part of the essay I shall discuss the varieties and functions of setting within British fiction of the nineteenth century. I shall argue that setting or physical place is an

elemental condition of human experience and that it is consequently an elemental component of literary meaning. I shall argue also that setting is enmeshed with other aspects of experience and meaning, with the themes of sexual identity that preoccupy most evolutionary psychologists, but also with themes of individual development, cultural criticism, and cosmic order that these psychologists sometimes overlook.

## П

In Biophilia, Wilson has an imaginatively arresting passage formulating the relations among different levels of biological analysis. He fixes on a specific scene of two men walking and talking together, and he invites us to regard them within differing temporal and spatial contexts-from the microseconds of biochemical reactions to the millennia and eons of evolutionary time. All of life is dependent on biochemical reactions, but they operate at a temporal scale far below the threshold of ordinary human perceptions. Moving toward the other end of the temporal scale, Wilson observes that within ecological time, "biochemical events have been compressed beyond reckoning. Organisms are no more than ensembles defined by the mathematical laws of birth and death, competition, and replacement."2 For evolutionary time, the threshold interval is about a thousand years, and on this scale "individuals lose most of their relevance as biological units" (p. 44). The scale of time and space on which this exercise begins—the scale of two men walking and talking together—is that of the individual organism. Parcelling out biological disciplines in accordance with this temporal scale, Wilson locates organismic biology between the extremes of molecular biology, measured in microseconds, and evolutionary time, measured in millions of years. Time in organismic biology can be measured in seconds, minutes, days, seasons, and lifetimes. These are the units of time in which we organize our behavior and recollect our experience. As Wilson puts it, organismic biology "explores the way we walk and speak" (p. 44). It is worth lingering over this observation. Human feeling, motivation, and thought occur only in individual minds. The individual mind is the locus of experience and meaning, and it is, consequently, on this level that we must seek the organization of meaning in literary texts.

Literature is produced by the psyche, not the ecosystem, and the psyche has been produced by natural selection. The direct causal force that creates complex cognitive structures is not an ecological principle of community, of sustainable growth, or of the stable interchange of energy within a biosphere. The direct causal force that creates complex adaptive structures is natural selection. Individuals interact with their environments, and natural selection always operates within the constraints of a specific ecological context, but ecology is itself neither the locus of meaning nor the ultimate regulative principle within the total set of biological relations. The locus of meaning is the individual psyche, and the ultimate regulative principle is inclusive fitness, the differential transmission of genes.

Before turning to the question of how environmental responsiveness can be incorporated into a Darwinian psychology and a Darwinian literary theory, we should briefly consider an ecologically based alternative to Darwinism—the utopic ecology of Joseph Meeker's *The Comedy of Survival: Literary Ecology and a Play Ethic.* This book was first published in 1974 but has been substantially rewritten in two subsequent editions, most recently in 1997. So far, Meeker's book is the only sustained effort to found a theory of literature on concepts that are specifically ecological in character. Meeker has a background in both comparative literature and animal ethology (he studied with Lorenz), and in the most recent edition of his book he has incorporated reference to prominent works of sociobiology and evolutionary psychology. Despite these putative ethological and evolutionary affiliations, Meeker's theory is only loosely and impressionistically associated with sociobiology and evolutionary psychology. Meeker makes no empirically conscientious effort to identify a structure of human motives and cognitive mechanisms that have evolved through an adaptive process of natural selection. Instead, he projects his own ethical and aesthetic values onto evolution, and he then employs his own vision of evolution—a vision that is more akin to Rousseauistic fantasy than to Darwinian science as a sanction for those very values he has projected onto it. Meeker likes comedy and dislikes tragedy, so he maintains that "comedy grows from the biological circumstances of life" and is "unconcerned with cultural systems of morality." Tragedy, in contrast, is purely cultural, that is, unnatural, and it is specifically Western. By developing a sense of self, by engaging in goal-oriented behavior, and by making moral judgments, tragic protagonists disrupt the blissful quietude of the natural order and make themselves vulnerable to "strong emotions" (p. 15). The emotions of comedy, Meeker feels, are not strong but playful, and they arise from exactly the same playfulness that characterizes evolution. In both evolution and comedy, play is governed by a set of "ground

rules" that can guarantee an emotionally successful outcome. "Organisms must adapt themselves to their circumstances in every possible way, must studiously avoid all-or-nothing choices, must seek alternatives to death, must accept and revel in maximum diversity, must accommodate themselves to the accidental limitations of birth and environment, and must prefer cooperation to competition, yet compete successfully when necessary" (pp. 20–21). By taking evolutionary biology as a guide, ecological literary critics can escape from tragic sensations, restore the joyous quietude of nature, and make objectively correct judgments of tonal value.

In The Descent of Man, Darwin attributes human morality to the capacity to compare present action with the past and the future and hence to assess the consequences of our acts in the light of our evolved feelings of social sympathy. We share sympathy for conspecifics, and in this respect we are like other social animals, at least among the mammals, but moral judgment is a complex and peculiarly human phenomenon depending on our highly evolved intelligence. By repudiating goal-oriented behavior and moral judgments, Meeker tends toward eliminating the specifically human from his aesthetic organon, and in this respect he affiliates himself with the school of ethical philosophy known as "deep ecology." Deep ecology is a form of radical biotic egalitarianism that locates value not in human beings but in ecosystems. Deep ecology defines itself primarily through its opposition to "anthropocentrism," or human-centered systems of value and meaning. Ecocritics who wade into deep ecology are wont to say things like "there exists not one scrap of evidence that humans are superior to or even more interesting than, say, lichen." Or, as another critic puts it, "The most important challenge to traditional hierarchies in ecology is the concept of biocentrism—the conviction that humans are neither better nor worse than other creatures (animals, plants, bacteria, rocks, rivers) but simply equal to everything else in the natural world."4

As a form of radical egalitarianism, deep ecology reverses the ethical content of traditional social Darwinism, but it shares the basic category error of social Darwinism. Both social Darwinists and deep ecologists formulate a general concept of some cosmic natural process, and they wrongly use this concept as a model or pattern for human ethical norms. Both the social Darwinist and deep ecological conceptions of nature—as the arena of ruthless individualism and the edenic abode of utopic egalitarianism respectively—are partial and inadequate. In emotional quality, one is cynical and the other is sentimental, but both fail

to take account of the evolved structure of motivations that are specific to human beings, and both erroneously invest the whole natural order with moral characteristics that are appropriate only within the human sphere.

Deep ecologists adopt a stance more radical than that of the standard postmodern blend. Standard radicals declare their wish only to subvert the hegemony of white male European heterosexuals of the ruling classes and to champion the cause of nonwhites, women, non-Europeans, homosexuals, and the proletariat, but it has not occurred to them to seek to subvert the hegemony of human beings in general and to champion the cause of lichen, bacteria, and rocks. If the deep ecologists were quite serious in their anti-anthropocentrism, they would of course be quite mad. But deep ecology is not a serious philosophy or a serious basis for a literary theory. It is only another and yet more decadent form of radical posing. Manes does not seriously wish to read novels that feature lichen as protagonists, nor does Campbell seriously propose to regard rocks and bacteria with the same respectful concern for their sensibilities that she expects them to show to hers. Meeker does mention that he compelled a small boy to apologize to a rock the boy had kicked (p. 111), but this is not serious, and Meeker most certainly does not seriously reject all goal-directed behavior. If nothing else, writing and publishing three editions of a book involves very extensive goal-directed behavior. Nor does he seriously repudiate all polarization of good and evil. Indeed, he rejects goal-directed behavior precisely because he considers it evil, and he celebrates an ethic of play precisely because he considers it good. As Warwick Fox observes in a sympathetic account of the movement, "Deep ecology has been elaborated within a philosophical context rather than a sociological or political context." Armchair radicalism need fear nothing from the consequences or inconsequentiality of the stances it adopts.

## Ш

Deep ecology is not serious, but a passionate responsiveness to the natural world is a real and important part of the human psyche. In order to incorporate this psychological reality into our understanding of literary theory, we need make no appeal to transcendental or mystical values invested in the ecosystem. We can appeal instead to the evolved structure of human motives. The desire to come into close contact with the natural world, and the satisfaction that that contact

gives, make themselves most apparent in nature writers—in Thoreau and Muir, Leopold and Abbey. In them, the feeling for nature has been isolated, concentrated and refined, but the same feeling, diffused and intermixed with other feelings, is part of the universal human experience, and it is a universal aspect of literary representation. Wilson isolates the biotic aspect of this experience and seeks to bring it within the range of empirical psychological study. He calls it "biophilia," and he defines it as "the innately emotional affiliation of human beings to other living organisms." Elaborating on this hypothesis of an innate desire for contact with nature, Stephen Kellert proposes that "much of the human search for a coherent and fulfilling existence is intimately dependent upon our relationship to nature." He argues that biophilia is universal, that it has adaptive value, and that fulfilling it might "constitute an important basis for a meaningful experience of self" or personal identity.<sup>6</sup>

Biophilia does not appear in most of the standard lists of basic motives compiled by sociobiologists and evolutionary psychologists. They tend to concentrate on motives directly pertaining to survival and reproduction, and much more to reproduction than to survival. Books on mating strategies are proliferating rapidly, but there have been no recent books that take as their subject the psychological structures keyed specifically to survival. This emphasis on reproduction perhaps reflects the fact that in evolutionary terms survival is subordinate to reproduction. As the male praying mantis could attest, the crucial requirement of natural selection is not that one survive indefinitely but only that one survive long enough to reproduce. Even so, in order for human beings to reproduce effectively—to produce offspring and raise them to maturity—they must survive quite a long time, say a minimum of twenty or thirty years, and they must do so in a difficult and dangerous world. The preoccupation with mating psychology and the relative neglect of motives appertaining to survival probably reflects a prejudice or distortion resulting from the conditions of health and security in the modern world. These are the conditions in which evolutionary psychologists themselves live, but they are very different from the Pleistocene conditions in which humans evolved. The conservationist and nature writer Aldo Leopold says that in the wilderness he is "back in the Pleistocene" and that outdoor recreations are "essentially primitive" and "atavistic." Throughout most of our evolutionary history, an alert attentiveness to the natural world would have been crucial to our survival, and the latent emotional responsiveness that

attends this adaptive function has not disappeared with the advent of controlled climates and supermarket foods.

At the present time, the immediate problems of shelter, hunger, and physical danger are less pressing than they were in our evolutionary past, at least for those of us in the affluent West, but we are all rapidly becoming conscious of great potential danger from a catastrophically degraded natural environment. In this respect, the effects of mismatch have come full circle. That is, modern industry and technology have at first detached us from our close and immediate dependence on the natural world, though without eliminating our sense of emotional connection to it, but they have also created new dangers, and these dangers have fuelled the growing concern for environmental conservation. At no point in this sequence has nature become emotionally and imaginatively unimportant to us.

No organism can be understood except in its interactive relations with its total environment. An organism is never an isolated thing. By definition and in brute reality the world that an organism inhabits is part of that organism. The organism carries that world embedded and moulded into every inmost fold of its physiology, its anatomy, and its psyche. Ecology is not a matrix category that can serve as a transcendent sanction for normative literary values or as a source for foundational concepts of literary structure. It can be linked to literary theory only through the intervening medium of human nature, but human nature can itself be understood only in its adaptive relationship to its environment. Writers—especially great writers—vividly apprehend the fundamental conditions of experience, and they make these conditions part of their total imaginative structures. The felt quality of experience within a natural world is one of those fundamental conditions of experience. It should also be one of the fundamental categories of literary analysis.

Up to the present time, literary theorists and critics who have attempted to incorporate Darwinian theory into their conceptual apparatus have tended to concentrate heavily on sexual and social interactions, and especially on sexual interactions. In this trend they have no doubt been influenced by the preoccupations of both evolutionary psychology and mainstream literary theory. (Deleting from the MLA Annual Bibliography all entries oriented to feminism, gender studies, and psychoanalysis would reduce the publication from the size of a large book to that of a thin pamphlet.) There are good reasons for such preoccupations. Problems of human identity, motivation, and

feeling are the central topics of literary representation; reproduction is elemental for all organisms; reproductive relations form the basis for human social organization; and all aspects of reproduction are necessarily saturated with the emotional forces that regulate behavior. All of these emotionally intensive aspects of personal life are nonetheless contained within a broader physical reality, and they can be adequately understood only when we take account of that reality.

Lorenz—one of the founders of modern ethology and also a seminal figure in evolutionary epistemology—concisely formulates the larger context within which we need to situate the motivational concerns of evolutionary psychology. "All human knowledge derives from a process of interaction between man as a physical entity, an active, perceiving subject, and the realities of an equally physical external world, the object of man's perception." Sense organs and the central nervous system have evolved so that organisms can "acquire relevant information about the world" and can "use this information for their survival." The Darwinian developmental psychologist John Bowlby follows Lorenz on this crucial point, and he argues that cognitive maps "can be of all degrees of sophistication from the elementary maps that we infer hunting wasps construct to the immensely complex world-picture of an educated Westerner."

In The Reality of Illusion: An Ecological Approach to Cognitive Film Theory, Anderson does not cite Lorenz or Bowlby, but he constructs an ethological argument for cognitive adaptation very similar to theirs, and he uses this argument as the basis for an incisive analysis of the techniques of cinematic representation. Human beings have always been participants in the "life-and-death struggles" that pervade nature, and spatial orientation is necessary for survival.9 "While moving around, continually shifting our own position we are keeping track of where we stand in and amongst the objects we are looking at" (p. 104). Cinema constructs narratives through the framing and cutting of discrete visual scenes—that is, discrete segments of space extending through time. The scope of these segments parallels that which Wilson identifies as the "organismic" scale. "Spatially, we can perceive things as small as a grain of sand or as large as a mountain, and our sense of time ranges from about a tenth of a second to perhaps three generations of our family" (p. 97). Given his emphasis on the evolution of adaptive structures oriented to survival, Anderson might well have labelled his theory "ethological" or "evolutionary." By calling it "ecological," he signifies that "as meaning-seeking creatures we are not outside the

environmental system looking in at it. We are inside the system, part of it, affecting and being affected by the environment" (p. 44).

In expounding the evolved, adaptive character of audio-visual orien-

tation, Anderson seeks to explain why movies are so accessible, so universally intelligible, and so compelling in their effects. In this explanatory purpose, he joins with Noel Carroll, who suggests that movies rely on cognitive aptitudes that are more natural or "biological" than verbal narratives. Carroll argues that movies "rely on a biological capability that is nurtured in humans as they learn to identify the objects and events in their environment," and he maintains that "the rapid development of this picture-recognition capacity contrasts strongly with the acquisition of a symbol system such as language."<sup>10</sup> Formulations of this sort imply that verbal narratives operate on a cultural plane that is somehow disconnected from innate and evolved characteristics of human beings. "Insofar as movies are constituted of a mode of representation connected to biological features of the human organism, they will be generally more accessible than genres in other media, such as the novel, that presuppose the mastery of learned conventions, such as specific natural languages" (p. 143). As Derek Bickerton and Steven Pinker have shown, language acquisition develops reliably and spontaneously, and it depends on evolved cognitive aptitudes. 11 Since it is a peculiarly human acquisition, it is a late development in the phylogenetic sequence. (And of course, in the development of cognitive skills, decoding written verbal narratives takes us yet one step further beyond decoding oral narratives.) Ontogenetically, language acquisition develops more slowly than the capacities for spatial orientation that humans share with other animals, but it is no less natural or "biological." Once humans have acquired language, they use spatial orientation and language interdependently to comprehend how they are situated in the world.

Filmed and verbal narratives form a continuum. Filmed narratives give a more direct and vivid apprehension of immediate physical reality—of what we can see and hear. Verbal narratives provide easier access to abstract reflection and hence more flexibility in the handling of complex conceptual and temporal relationships. But movies are not devoid of conceptual relations or the superposition of temporal phases, and verbal narratives do not take place in a physical void. The quality and intensity of responsiveness to the physical and biotic world varies from writer to writer, but virtually any writer worthy of serious attention will register it in some significant fashion. In what remains of this essay,

I shall be speaking primarily about British fiction of the nineteenth century—arguably one of the most cultivated and domesticated tracts in all of literature—and I shall claim that in all these novels nature is a vital and integral part of the total imaginative structure.<sup>12</sup>

## IV

A few prominent works of ecocriticism concern themselves primarily with British literature, but there is a strong general bias in the field toward American literature, and among Americans writers—with the major exception of Thoreau—toward the literature of the American West. Ecocritical treatments of British literature have gravitated toward the romantics.<sup>13</sup> These canonical predilections reflect a tendency to divide writers into two groups. Those in the favored group are deemed particularly responsive to nature. All the rest are relegated to the realm of purely personal and social preoccupations. For instance, Scott Russell Sanders quotes D. H. Lawrence's appreciative commentary on the presence of the natural world in the fiction of Thomas Hardy, and he says that "while Lawrence's account seems to me largely true of Hardy, it does not apply to the mainstream of British fiction."<sup>14</sup> Sanders mentions a representative sampling of major British novelists, including Defoe, Fielding, Austen, Dickens, and Eliot, and in all these writers he maintains that "the social realm—the human morality play—is a far more powerful presence than nature" (p. 183). He tacitly identifies nature with "wilderness," and he argues that wilderness is more adequately represented by American than by British writers.

British writers of the later nineteenth century lived in a long-cultivated, densely populated, and heavily industrialized country, but world exploration, colonial expansion, and the still fresh scientific revelations about geological time and evolutionary transformation offered a wide field for imaginative exploration into wild places. More importantly, there is a deep fallacy in the idea that the world can be simply divided into wild and cultivated tracts, that "nature" can be identified with wilderness, and that all cultivated territory can thus be regarded as somehow outside of nature. In what follows, I shall first describe some of the more prominent British depictions of wild nature, and then consider the ways nature enters into the cultivated tracts of British domestic fiction.

H. G. Wells ranges, chronologically and geographically, across the whole spectrum of possible human environments. In "A Tale of the

Stone Age," he credibly recreates the environment of paleolithic humans. Many of his short stories are set in remote and exotic regions of the world, and in his science fiction he explores the variety and plasticity of natural environments. In The Time Machine, the time traveller goes forward almost a million years, to a world that has been cultivated into a perfect garden but in which humans have degenerated into divergent subhuman species of predators and prey. In his second voyage, the time traveller advances billions of years to witness the final decay of the sun into a red giant and the imminent extinction of all life on earth. In War of the Worlds, Martian invaders use advanced technology to devastate the cultivated landscape of England, and this landscape begins rapidly to revert to wilderness, but the Martians are themselves subject to "the action of natural selection" (ch. 6). They are trapped and destroyed by the ecological network of earthly microbes. Along with physical devastation, they leave behind them a new and permanent sense of the fragility and vulnerability of the human world. In After London, Richard Jeffries constructs a compelling futuristic fantasy of an England that has been devastated and depopulated by industrial pollution and that is then covered over, in a matter of decades, with forests inhabited by savage tribes. A similar social world, evoked in realistic detail, appears in the novels about the Scottish highlands by both Scott and Stevenson. In some of his later historical stories, Kipling evokes the primitive tribal phases of British culture, and in his contemporary English stories he retains a sense of the land as the enduring basis of human life. In his early work, Kipling had made the landscapes and culture of India intimately familiar to his English audience, and in *The Jungle Books* he creates a fantasy that recuperates the sensations of savagery. The Jungle Books also contain a powerful naturalistic story ("Quiquern") about the hunting people who inhabit the polar regions. In She and King Solomon's Mines, H. Rider Haggard combines tales of fabulous adventure with realistic topographic and ethnographic descriptions of Africa. Much of Conrad's early fiction is set in the jungles and seas of the Malay Archipelago. In *Nostromo*, Conrad powerfully evokes a vast and varied South American topography; and in *Heart of Darkness* he broods over the spirit of the African wilderness. Journeying into the wilderness takes him into the prehuman past. "Going up that river was like travelling back to the earliest beginnings of the world, when vegetation rioted on the earth and the big trees were kings" (ch. 2). Marlow tells this tale of the wilderness to a group of modern British professionals, sitting on a yacht in the mouth

of the Thames. To point the relevance of his story, he begins it by reminding his listeners that the place in which they sit has also been "one of the dark places of the earth" (ch. 1). As in most serious literature, the natural world is a symbol of Nature. The African wilderness is "something great and invincible, like evil or truth" (ch. 1). It is a primary, literal reality, but it is also the concrete image of a metaphysical conception about the ultimate character of the universe.

Robinson Crusoe is probably the most frequently cited antecedent in all British fiction, and Crusoe serves as a mythic archetype for the lone individual coming to terms with a wilderness. Dickens' world includes both the country and the city, but his stories most often and memorably lodge themselves within the labyrinthine and historically layered topography of London. Dickens nonetheless alludes to Robinson Crusoe in every one of his novels until the last two or three. In the American section of Martin Chuzzlewit, he exploits the experience of his own American travels to depict the miseries of life in an American swamp, but one could plausibly argue that the wildest places in all of Dickens are the strange holes and corners of the urban world—the slums, prisons, refuse shops, cellars, sealed rooms, gated graveyards, and garbage dumps evoked in novels such as Oliver Twist, The Old Curiosity Shop, David Copperfield, Bleak House, and Our Mutual Friend. For Dickens' protagonists, London is often a dangerous and bewildering wilderness, full of dark lairs that house monstrous, subhuman predators. The opening lines of Bleak House evoke the setting of Chancery as a sort of primeval chaos predating the human world by millions of years:

London. Michaelmas Term lately over, and the Lord Chancellor sitting in Lincoln's Inn Hall. Implacable November weather. As much mud in the streets, as if the waters had but newly retired from the face of the earth, and it would not be wonderful to meet a Megalosaurus forty feet long or so, waddling like an elephantine lizard up Holborn Hill. Smoke lowering down from chimney-pots, making a soft black drizzle, with flakes of soot in it as big as full-grown snow-flakes—gone into mourning, one might imagine, for the death of the sun.

Conrad also thinks of London as another kind of wilderness, a manmade "heart of darkness." In *The Secret Agent* he turned to London from the South American setting of *Nostromo*, and in his introduction to the later novel he describes his meditation over the transition in settings:

One fell to musing . . . of South America, a continent of crude sunshine and brutal revolutions, of the sea, the vast expanse of salt waters, the mirror of heaven's frowns and smiles, the reflector of the world's light. Then the vision of an enormous town presented itself, of a monstrous town more populous than some continents and in its man-made might as if indifferent to heaven's frowns and smiles; a cruel devourer of the world's light. There was room enough there to place any story, variety enough there for any setting, darkness enough to bury five millions of lives. (40–41)

Like most great English novelists, Conrad is a moralist; that is, in assessing all human behavior, he gives a predominating weight to its moral (or immoral) aspect. But morality does not present itself to him as an arena of purely personal action separated from nature. Morality is part of human nature, and human nature is only the strangest and most exotic growth in the natural world.

What of writers like Fielding, Austen, the Brontës, Gaskell, Thackeray, Trollope, Meredith, and Eliot—writers who take predominantly domestic subjects within the human moral comedy? In all of these novelists, place is intimately associated with personal identity. In Fielding, Austen, Thackeray, and Trollope, the place is often an estate, but the estate is never merely an abstract calculation of social status and monetary value. It is a set of buildings in a park, usually surrounded by farms, and it is situated in a district that has woods and fields, towns and villages, farms and manufacturies. Characteristically, this whole setting is described in minute topographical detail, and it is not merely described and then set aside as the novelist gets on with the plot; it is kept vividly before the reader's eyes, with all its attendant changes of season and weather, as an essential aspect in the quality of experience. Plots in the Victorian novel are most often stories of growing up and stories of marriage, but such stories, in real life and in fiction, depend heavily on the place in which people live.

Wuthering Heights provides a particularly intense but by no means anomalous example of the way person and place interpenetrate in Victorian novels. The plot of this novel works itself out in an alternation and opposition of two locations: on the one side the Grange, situated in a pleasant, sheltered valley and inhabited by the Lintons, who are civilized and cultivated but also weak and soft; and on the other side Wuthering Heights, rough and bleak, exposed to violent winds, and inhabited by the Earnshaws, who are crude and violent but also strong and passionate. The characters are like natural growths from the

ground they inhabit. Describing her connection with the earth, Catherine Earnshaw tells Nelly Dean she once dreamed she was in heaven, "but heaven did not seem to be my home; and I broke my heart with weeping to come back to earth; and the angels were so angry that they flung me out, into the middle of the heath on the top of Wuthering Heights; where I woke sobbing for joy" (ch. 9). The plot of this story, like that of so many Victorian novels, turns on conflicts between class and romantic attraction. Catherine plans to marry Edgar Linton because he is of a higher class than Heathcliff, but she herself recognizes that class is for her a relatively superficial distinction of personal identity. "'My love for Linton is like the foliage in the woods. Time will change it, I'm well aware, as winter changes the trees. My love for Heathcliff resembles the eternal rocks beneath—a source of little visible delight, but necessary" (ch. 10). Catherine does not merely use images from nature as metaphoric descriptions of a personal identity and a romantic bond that exist independently of the natural world. In her thinking, personal identity and romantic bonding are constituted out of the very substance of the place in which they are formed. This interpenetration of person and place is so complete that after their death the spirits of Heathcliff and Catherine Earnshaw continue to walk the moors, like spectral emanations of the ground.

England in the nineteenth century was transforming itself from a primarily agricultural economy into a manufacturing economy. The contrast between the salubrious life of the country and the squalid, unwholesome life of the towns forms a distinct topic in the fiction of the period and in its most specialized manifestations constitutes something like a subgenre: the Victorian industrial novel. Signal instances include Gaskell's Mary Barton and North and South, Disraeli's Sybil or the Two Nations, Dickens' Hard Times, and Eliot's Felix Holt. The plots of these novels contain the usual stuff of moral drama-childhood, parenting, seduction, betrayal, courtship, marriage, inheritance, theft, and murder. In the stories, as in reality, people struggle to create fulfilling or at least decent lives for themselves, and success or failure in that struggle depends vitally on the kind of place in which they live. Victorian novels commonly conclude in marriage, and the resolution of happy comedy often involves an escape from urban squalor into some garden location, as in the creation of a second Bleak House at the end of that novel or in Dinah Morris' ultimate retreat from the harsh coal country to a pleasant agricultural region in Adam Bede. At other times, as in North and South or Felix Holt, the choices of vocation lead the

protagonists to resign themselves to the sadder, grimmer life of the towns. In *Bleak House*, the two Rouncewell brothers go their separate ways, socially and geographically, one to the independence and wealth produced by his ironworks in the scarred and dirty landscape of the industrial north; the other to the gracious parklands of the south, and thus also to the traditions of servitude to aristocratic power. Social class and personal character diverge and articulate themselves within their distinct topographies, but brothers are brothers still, and their divergence also symbolizes Dickens' sense of a civil tolerance in the deep economic and political divisions of the country.

The interpenetration of character and place has its necessary correlatives in literary style, and style registers meaning at the highest level of philosophical theme in a novel. Bleak House will serve for the illustration. Bleak House is a multilayered novel, with over fifty characters, dual narrators, multiple plots, and themes that range across the whole spectrum of human concerns, from intimate problems of personal identity and mate choice, through social and political conflicts, and ultimately to philosophical visions about the ultimate nature of things. One central story, that of the first-person narrator Esther Summerson, provides a nexus of unifying themes for this complex fictional assemblage. Esther is illegitimate and has been raised by a stern and unloving aunt. The central problem in her story is not inheritance or even marriage, though her plot ends in marriage. The main challenge she faces is that of personal development. While operating under circumstances that would in most cases permanently cripple a personality, she succeeds in creating a coherent sense of personal identity that realizes her potential for emotional fulfillment. She is surrounded by characters who fail to achieve an adequate development—who have never been children or who have never grown up—and all along the way, she is herself threatened with a loss of identity or with deforming substitutions in her social persona. In the midst of a large gallery of characters who are diseased, stunted, or deformed, she constitutes a central nucleus of strength and emotional health. Dickens registers her existential success through the testimony of other characters, but he also registers it directly through her relation to nature.

In one elaborately staged scene, Esther is walking in the grounds of Sir Leicester Deadlock, is caught in a thunderstorm, and takes refuge in a lodge. This is her description of the storm:

The lattice-windows were all thrown open, and we sat, just within the doorway, watching the storm. It was grand to see how the wind awoke, and bent the trees, and drove the rain before it like a cloud of smoke; and to hear the solemn thunder, and to see the lightning; and while thinking with awe of the tremendous powers by which our little lives are encompassed, to consider how beneficent they are, and how upon the smallest flower and leaf there was already a freshness poured from all this seeming rage, which seemed to make creation new again. (ch. 18)

We do not learn much in detail about Esther's education, but a scene like this conveys all the information we need about its effects. We learn here that Esther has not only read Wordsworth but has absorbed his lyricism into her own style, and that along with the lyricism she has fully assimilated his romantic religion of a beneficent natural order. From this one passage, we know as much as we can be told about the quality of Esther's literary imagination and the largest scope of her philosophical vision. The power of her imagination has preserved her from the deforming accidents of her personal and social circumstances, and that power registers itself in her literary style.

Dickens still participates in a Wordsworthian vision of nature as a beneficent force. Wells, Hardy, and Conrad all share a post-Darwinian sense of natural force that dwarfs all merely human measures of good and evil. Philosophical differences of this magnitude have a major impact on the largest generic and thematic structures in a work of fiction, but in no work of fiction is character ever divorced from physical place. As the evolutionary epistemologists and cognitive ecologists tell us, the necessities of survival have adapted us to find our way in the world, and as both Wilson and the nature writers remind us, those adaptations carry with them an instinctive sense of emotional connection to the world. The writers of fiction have always intuitively understood that connection. In one respect, they are like ethologists reporting on the behavior of animals in their natural habitats. They present us not simply with social and moral agents acting out plots but rather with human organisms intricately enmeshed in their environments. The challenge for theorists and critics is to formulate explanatory concepts and interpretive methods that are adequate to account for these primary observations.

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- 1. For examples of all the varieties of ecocriticism mentioned here, see *The Ecocriticism Reader: Landmarks in Literary Ecology*, ed. Cheryll Glotfelty and Harold Fromm (Athens: University of Georgia Press, 1996). The introduction and annotated bibliography in this anthology provide an overview of the topics and titles prominent in the field. Extensive bibliographies and bibliographic essays are also available at the website of the Association for the Study of Literature and the Environment (www.asle.umn.edu), and the website has a link to the official journal of the organization, *Interdisciplinary Studies in Literature and the Environment*. One prominent ecocritic, Glen Love, criticizes the standard postmodern blend and affiliates himself instead with Darwinian literary study. See Love, "Science, Anti-Science, and Ecocriticism," *Interdisciplinary Studies in Literature and the Environment* 6 (1999): 65–81, and "Ecocriticism and Science: Toward Consilience?" *New Literary History* 30 (1999): 561–76.
- 2. Edward O. Wilson, Biophilia (Cambridge: Harvard University Press, 1984), p. 43.
- 3. Joseph W. Meeker, *The Comedy of Survival: Literary Ecology and a Play Ethic*, 3rd ed. (Tucson: University of Arizona Press, 1997), p. 15.
- 4. Christopher Manes, "Nature and Silence," in *The Ecocriticism Reader*, p. 22 (n. 1). Sueellen Campbell, "The Land and Language of Desire: Where Deep Ecology and Post-Structuralism Meet," in *The Ecocriticism Reader*, p. 128.
- 5. Warwick Fox, "The Deep Ecology-Ecofeminism Debate and Its Parallels," *Environmental Ethics* 11 (1989): 24. For a standard source in deep ecology, see Bill Devall and George Sessions, *Deep Ecology: Living as if Nature Mattered* (Salt Lake City: Gibbs M. Smith, 1985). For critiques of the sentimentalism and bad faith attendant on deep ecology, see Matt Ridley, *The Origins of Virtue: Human Instincts and the Evolution of Cooperation* (New York: Penguin, 1997), ch. 11, and Harold Fromm, "Ecology and Ecstasy on Interstate 80," *Hudson Review* 51 (1998): 65–78. For a survey of philosophical literature on ecology, see Kim Sterelny and Paul E. Griffiths, *Sex and Death: An Introduction to Philosophy and Biology* (Chicago: University of Chicago Press, 1999), ch. 11. For a concise but comprehensive survey of the current ecological situation, see Edward O. Wilson, *Consilience: The Unity of Knowledge* (New York: Alfred A. Knopf, 1998), ch. 12. For an exploration of ecological relations through all of evolutionary history, see Edward O. Wilson, *The Diversity of Life* (Cambridge: Harvard University Press, 1992).
- 6. Edward O. Wilson, "Biophilia and the Conservation Ethic," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Washington, D.C.: Island Press, 1993), p. 31. Stephen R. Kellert, *The Biophilia Hypothesis*, pp. 43; 60.
- 7. Aldo Leopold, A Sand County Almanac and Sketches Here and There (1949; New York: Oxford University Press, 1987), pp. 148; 181.
- 8. Konrad Lorenz, Behind the Mirror: A Search for a Natural History of Human Knowledge, trans. Ronald Taylor (New York: Harcourt Brace Jovanovich, 1978), pp. 1; 6. John Bowlby, Attachment and Loss, Vol. 1, Attachment, 2nd ed. (New York: Basic Books, 1982), p. 80.
- 9. Joseph D. Anderson, *The Reality of Illusion: An Ecological Approach to Cognitive Film Theory* (Carbondale: Southern Illinois University Press, 1996), p. 104.
- 10. Noel Carroll, Mystifying Movies: Fads and Fallacies in Contemporary Film Theory (New York: Columbia University Press, 1988), pp. 140; 139.

- 11. See Derek Bickerton, Language and Species (Chicago: University of Chicago Press, 1990); Steven Pinker, The Language Instinct: How the Mind Creates Language (New York: William Morrow, 1994); and Steven Pinker, How The Mind Works (New York: W. W. Norton, 1997).
- 12. In Film and Literature: An Introduction (New York: Longman, 1979), Morris Beja argues for the continuity of verbal and filmed narratives. In The Literary Mind (New York: Oxford University Press, 1996), Mark Turner argues for the elemental and primary character of narrative, independent of representational medium. In Novel into Film (Berkeley: University of California Press, 1957), George Bluestone argues that movies are limited to the present tense. For responses to Bluestone, see Joy Boyum, Double Exposure: Fiction into Film (1985; New York: Mentor, 1989); Robert Giddings, Keith Selby, and Chris Wensley, Screening the Novel: The Theory and Practice of Literary Dramatization (New York: St. Martin's, 1990); Imelda Whelehan, "Adaptations: The Contemporary Dilemmas," in Adaptations: From Text to Screen, Screen to Text, ed. Deborah Cartmell and Imelda Whelehan (London: Routledge, 1999); and Sarah Cardwell, "Present(ing) Tense: Temporality and Tense in Comparative Theories of Literature-Film Adaptation," Scope (www.nottingham.ac.uk./film, 2000).
- 13. Prominent ecocritical studies of romanticism include Jonathan Bate, Romantic Ecology: Wordsworth and the Environmental Tradition (New York: Routledge, 1991) and Karl Kroeber, Ecological Literary Criticism: Romantic Imagining and the Biology of Mind (New York: Columbia University Press, 1994). Prominent ecocritical studies of American subjects include Annette Kolodny, The Lay of the Land: Metaphor as Experience and History in American Life and Letters (Chapel Hill: University of North Carolina Press, 1975); Roderick Nash, Wilderness and the American Mind, 3rd ed. (New Haven: Yale University Press, 1982); and Lawrence Buell, The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture (Cambridge: Harvard University Press, 1995). Leo Marx's The Machine in the Garden: Technology and the Pastoral Ideal in America (New York: Oxford University Press, 1964) is widely regarded as an important early work of ecological literary criticism, but Marx has major reservations about ecocriticism as an ideological movement. See "The Full Thoreau," New York Review of Books 46 (15 July 1999): 44–48, and "An Exchange on Thoreau" (2 December 1999): 64.
- 14. Scott Russell Sanders, "Speaking a Word for Nature," in *The Ecocriticism Reader*, p. 183 (n. 1).
- 15. This is the central point in Harold Fromm's fine essay (n. 5).