

ECOCRITICISM

Greg Garrard

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THE NEW CRITICAL IDIOM

SERIES EDITOR: JOHN DRAKAKIS, UNIVERSITY OF STIRLING

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CONTENTS

SERIES EDITOR'S PREFACE	ix
ACKNOWLEDGMENTS	xi
1 Beginnings: Pollution	1
2 Positions	16
3 Pastoral	33
4 Wilderness	59
5 Apocalypse	85
6 Dwelling	108
7 Animals	136
8 Futures: The Earth	160
GLOSSARY	183
FURTHER READING	185
BIBLIOGRAPHY	187
INDEX	197

SERIES EDITOR'S PREFACE

The New Critical Idiom is a series of introductory books which seeks to extend the lexicon of literary terms, in order to address the radical changes which have taken place in the study of literature during the last decades of the twentieth century. The aim is to provide clear, well-illustrated accounts of the full range of terminology currently in use, and to evolve histories of its changing usage.

The current state of the discipline of literary studies is one where there is considerable debate concerning basic questions of terminology. This involves, among other things, the boundaries which distinguish the literary from the non-literary; the position of literature within the larger sphere of culture; the relationship between literatures of different cultures; and questions concerning the relation of literary to other cultural forms within the context of interdisciplinary structures.

It is clear that the field of literary criticism and theory is a dynamic and heterogeneous one. The present need is for individual volumes on terms which combine clarity of exposition with an adventurousness of perspective and a breadth of application. Each volume will contain as part of its apparatus some indication of the direction in which the definition of particular terms is likely to move, as well as expanding the disciplinary boundaries within which some of these terms have been traditionally contained. This will involve some re-situation of terms within the larger field of cultural representation, and will introduce examples from the area of film and the modern media in addition to examples from a variety of literary texts.

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My first and foremost acknowledgment is to all my splendid and unusual family, for their support and encouragement, especially during the long years of PhD study. Specifically, Mum and Dad rushed in where the British Academy feared to fund, Pa provoked my interest in environmental issues and gave me someone to argue with, and Fliss shared my gardening obsession and sent Michael Pollan books to give it intellectual weight. And I am blessed with brilliant brothers and sisters.

Jon Bate was an exemplary supervisor, and suggested my name to Routledge for this series. I am deeply grateful for the practical consequences of his faith in me, such as having a job that I love immoderately. Amongst my many excellent colleagues at Bath Spa University College, Richard Kerridge has given me the benefit of his intelligence and insight in many a long argument, Tracey Hill has tried to save me from myself, and Paul Edwards has supported my research and commented on a first draft. Moreover, I have learned a great deal from our students, especially those on 'Writing and Environmental Crisis', 'Reading Texts' and 'Utopias'. In particular, John Gaskin read and commented on an early draft. The College has also provided me with some vital teaching relief. Beyond Bath, the members of ASLE have been an inspiration to me, especially Molly Westling and Terry Gifford.

John Drakakis was an extremely thorough and challenging editor, whose debates with me over successive versions greatly improved the eventual outcome. Liz Thompson was patient and supportive even when the manuscript was late for its late, revised deadline, and undertook further crucial editing.

Closest to home, much love and thanks must go to Caroline, who read most of the drafts and provided invaluable intellectual and stylistic comments. The discussion of the feminine sublime in Chapter 3 is specifically indebted to her. Thanks also, although they'll never know it, to Bryn, Hamish and P'ars'ley, whose seemingly constant demands for food, walks and games provided an ironic counterpoint to the writing of the 'Animals' chapter.

NOTE ON TERMINOLOGY

While it is usual in academic writing to refer to 'Native Americans' rather than 'American Indians', I have used both terms interchangeably in this book. Neither is wholly satisfactory, and my understanding is that many Native Americans prefer the traditional term.

1

BEGINNINGS: POLLUTION

It is generally agreed that modern environmentalism begins with 'A Fable for Tomorrow', in Rachel Carson's *Silent Spring* (1962). Carson's fairy tale opens with the words, 'There was once a town in the heart of America where all life seemed to live in harmony with its surroundings' and, invoking the ancient tradition of the pastoral, goes on to paint a picture of 'prosperous farms', 'green fields', foxes barking in the hills, silent deer, ferns and wildflowers, 'countless birds' and trout lying in clear, cold streams, all delighted in by those who pass through the town (1999: 21). Concentrating on images of natural beauty and emphasising the 'harmony' of humanity and nature that 'once' existed, the fable at first presents us with a picture of essential changelessness, which human activity scarcely disturbs, and which the annual round of seasons only reinforces. However, pastoral peace rapidly gives way to catastrophic destruction:

Then a strange blight crept over the area and everything began to change. Some evil spell had settled on the community: mysterious maladies swept the flocks of chickens; the cattle and sheep sickened and died. Everywhere was a shadow of death.

In the ensuing paragraphs, every element of the rural idyll is torn apart by some agent of change, the mystery of which is emphasised by the use

of both natural and supernatural terminology of 'malady' and 'spell'. The most impassioned passage concerns the collapse in bird populations: 'On the mornings that had once throbbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices there was now no sound; only silence lay over the fields and woods and marsh' (1999: 22). The 'silent spring' of the title alludes, on one level, to this loss of birdsong, although it also comes to function as a synecdoche for a more general environmental apocalypse.

So the founding text of modern environmentalism not only begins with a decidedly poetic parable, but also relies on the literary genres of pastoral and apocalypse, pre-existing ways of imagining the place of humans in nature that may be traced back to such sources as Genesis and Revelation, the first and last books of the Bible. *Silent Spring* initially suggests that the mythical eco-catastrophe of the fable might be supernatural, and emphasises this by including an epigram from Kears' poem 'La Belle Dame Sans Merci', in which the magical power of a beautiful woman blights the environment: 'The sedge is wither'd from the lake, / And no birds sing.' But then the fable concludes: 'No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves.' The rest of the book sets out to prove that such an apocalypse was already going on in a fragmentary way all over America, so that the doom befalling this mythical town of the future could be seen as a composite of lesser tragedies already known, and scientifically validated, in 1962.

The real culprits, according to Carson, were the new organic pesticides such as DDT, aldrin and dieldrin that had been introduced after the Second World War and had already proven highly successful in controlling pest insects. *Silent Spring* marshalled an impressive array of scientific evidence to show that this very success constituted a serious threat both to wildlife and to human health, confronting the utopian claims of agricultural scientists on their own ground. Carson's scientific claims have since been largely confirmed (although there is still no evidence that DDT is harmful to humans), leading to increased public awareness of pesticide pollution, firmer state regulation and development of less persistent agricultural chemicals.

Environmentalism claims like these make crucial contributions to modern politics and culture, and many of us respond to them to some

degree, yet for the student of the humanities they can be difficult to assess on their own terms. Academia has been organised into relatively autonomous 'disciplines' and scientific problems seem to require scientific expertise. Nevertheless, the rhetorical strategies, use of pastoral and apocalyptic imagery and literary allusions with which Carson shapes her scientific material may well be amenable to a more 'literary' or 'cultural' analysis. Such analysis is what we will call 'ecocriticism'. This book is a critical introduction to the field of ecocriticism today.

Let us look, then, at some provisional definitions of the subject. The first is from the 'Introduction' to *The Ecocriticism Reader* (1996), an important anthology of American ecocriticism:

What then is ecocriticism? Simply put, ecocriticism is the study of the relationship between literature and the physical environment. Just as feminist criticism examines language and literature from a gender-conscious perspective, and Marxist criticism brings an awareness of modes of production and economic class to its reading of texts, ecocriticism takes an earth-centred approach to literary studies.

(Glotfelty 1996: xix)

Glotfelty goes on to specify some of the questions ecocritics ask, ranging from 'How is nature represented in this sonnet?' through 'How has the concept of wilderness changed over time?' to 'How is science itself open to literary analysis?' and finally 'What cross-fertilization is possible between literary studies and environmental discourse in related disciplines such as history, philosophy, psychology, art history, and ethics?'

Ecocriticism is, then, an avowedly political mode of analysis, as the comparison with feminism and Marxism suggests. Ecocritics generally tie their cultural analyses explicitly to a 'green' moral and political agenda. In this respect, ecocriticism is closely related to environmentally oriented developments in philosophy and political theory. Developing the insights of earlier critical movements, ecofeminists, social ecologists and environmental justice advocates seek a synthesis of environmental and social concerns.

It is worth noting also that the questions posed by ecocriticism in Glotfelty's account follow a clear trajectory: the first question, for example, is very narrow and literary, tending to favour the student of

Romantic verse. Thus, two of the most important works of ecocriticism in the 1990s were studies of Wordsworth and Shelley (Bate 1991 and Kroeber 1994). The questions grow in scope as the list continues, with several of the later ones suggesting gargantuan interdisciplinary studies such as Simon Schama's *Landscape and Memory* (1995).

Richard Kerridge's definition in the mainly British *Writing the Environment* (1998) suggests, like Glotfelty's, a broad cultural ecocriticism:

The ecocritic wants to track environmental ideas and representations wherever they appear, to see more clearly a debate which seems to be taking place, often part-concealed, in a great many cultural spaces. Most of all, ecocriticism seeks to evaluate texts and ideas in terms of their coherence and usefulness as responses to environmental crisis.

(1998: 5)

We will have reason to question the monolithic conception of 'environmental crisis' implied here, and perhaps to resist the evaluation of 'texts and ideas' against a seemingly secure ecological yardstick: both as a science and as a socio-political movement, 'ecology' itself is shifting and contested. However, the emphasis on the moral and political orientation of the ecocritic and the broad specification of the field of study are essential.

From the point of view of academics, ecocriticism is dominated by the Association for the Study of Literature and the Environment (ASLE), a professional association that started in America but now has significant branches in the UK and Japan. It organises regular conferences and publishes a journal that includes literary analysis, creative writing and articles on environmental education and activism. Many early works of ecocriticism were characterised by an exclusive interest in Romantic poetry, wilderness narrative and nature writing, but in the last few years ASLE has turned towards a more general cultural ecocriticism, with studies of popular scientific writing, film, TV, art, architecture and other cultural artefacts such as theme parks, zoos and shopping malls. As ecocritics seek to offer a truly transformative discourse, enabling us to analyse and criticise the world in which we live, attention is increasingly given to the broad range of cultural processes and products in which, and through which, the complex negotiations of nature and culture take place.

Indeed, the widest definition of the subject of ecocriticism is the study of the relationship of the human and the non-human, throughout human cultural history and entailing critical analysis of the term 'human' itself. This book will reflect these trends by giving space to both literary and cultural ecocriticism. However, at this point there is a caveat: I will be dealing principally with British and North American literature and culture, although the principles of ecocriticism would of course admit of more general application.

Ecocriticism is unique amongst contemporary literary and cultural theories because of its close relationship with the science of ecology. Ecocritics may not be qualified to contribute to debates about problems in ecology, but they must nevertheless transgress disciplinary boundaries and develop their own 'ecological literacy' as far as possible. I therefore provide brief discussions of some important environmental threats faced by the world today. To consider these in detail is beyond the scope of this book, but it is essential for ecocritics to recognise that there are serious arguments about the existence of the problems, their extent, the nature of the threat and the possible solutions to them. So, for example, in Chapter 5, I consider the problem of 'over-population' from a demographic point of view, before going on to explain how the issue has been refracted through apocalyptic rhetoric.

It may seem obvious that ecological problems are scientific problems rather than objects of cultural analysis. Indeed, when *Silent Spring* was published the agro-chemical industry reacted by criticising the book for its literary qualities, which, they implied, could not coexist with the appropriate scientific rigour. Would we not be recapitulating the propaganda published by the pesticide producers if we read Carson's book using literary-critical tools? John Passmore has proposed a distinction that may help to negotiate the problem. 'Problems in ecology', he maintains, are properly scientific issues, to be resolved by the formulation and testing of hypotheses in ecological experiments, while 'ecological problems' are 'features of our society, arising out of our dealings with nature, from which we should like to free ourselves, and which we do not regard as inevitable consequences of what is good in that society' (1974: 44). To describe something as an ecological problem is to make a normative claim about how we would wish things to be, and while this arises out of the claims of ecological scientists, it is not defined by them. A 'weed' is not a

kind of plant, only the wrong kind in the wrong place. Eliminating weeds is obviously a 'problem in gardening', but defining weeds in the first place requires a cultural, not horticultural, analysis. Likewise 'pollution' is an ecological problem because it does not name a substance or class of substances, but rather represents an implicit normative claim that too much of something is present in the environment, usually in the wrong place. Carson had to investigate a problem in ecology, with the help of wildlife biologists and environmental toxicologists, in order to show that DDT was present in the environment in amounts toxic to wildlife, but *Silent Spring* undertook cultural not scientific work when it strove to argue the moral case that it *ought* not to be. The great achievement of the book was to turn a (scientific) problem in ecology into a widely perceived ecological problem that was then contested politically, legally and in the media and popular culture. Thus ecocriticism cannot contribute much to debates about problems in ecology, but it can help to define, explore and even resolve ecological problems in this wider sense.

One 'ecocritical' way of reading is to see contributions to environmental debate as examples of rhetoric. I have already suggested that Carson deploys both pastoral imagery and apocalyptic rhetoric, and will return to these subjects, but there are many other applications of formal rhetorical analysis. For example, Ralph Lutts has attempted to account for the impact of *Silent Spring* by drawing attention to the underlying analogy Carson uses between pesticide pollution and another kind of pollution that was strong in popular consciousness in 1962:

She was sounding an alarm about a kind of pollution that was invisible to the senses; could be transported great distances, perhaps globally; could accumulate over time in body tissues; could produce chronic, as well as acute, poisoning; and could result in cancer, birth defects, and genetic mutations that may not become evident until years or decades after exposure. Government officials, she also argued, were not taking the steps necessary to control this pollution and protect the public. Chemical pesticides were not the only form of pollution fitting this description. Another form, far better known to the public at the time, was radioactive fallout. Pesticides could be understood as another form of fallout.

(2000:19)

So Carson combined ancient ways of imagining nature with contemporary ways of imagining a threat derived from 'fallout hysteria', with a view to establishing particular normative claims about pollution. Detailed rhetorical analysis shows how *Silent Spring* is constructed in order to achieve certain political results: not only the concrete measures described in the final chapter, but also a subtle revision of the concept of 'pollution' itself.

Reading *Silent Spring* as rhetoric has a number of advantages for an overtly politicised critical practice, some of which are set out by Marxist critic Terry Eagleton:

What would be specific to the kind of study I have in mind . . . would be the kinds of *effects* which discourses produce, and how they produce them. Reading a zoology textbook to find out about giraffes is part of studying zoology, but reading it to see how its discourse is structured and organised, and examining what kind of effects these forms and devices produce in particular readers in actual situations, is a different kind of project. It is, in fact, probably the oldest form of literary criticism in the world, known as rhetoric.

(1996: 205)

I will be reading culture as rhetoric, although not in the strict sense understood by rhetoricians, but as the production, reproduction and transformation of large-scale metaphors. Each of my chapters will examine one such metaphor, thought to have specific – though sometimes ambivalent – political effects or to serve particular social interests. Some, like 'pastoral', are established literary tropes, whilst others name more heterogeneous materials that one can provisionally unify under a single title. Since all are, in some sense, ways of imagining, constructing or presenting nature in a figure, I will call my chapter headings 'tropes'. Each trope will gather together permutations of creative imagination: metaphor, genre, narrative, image. This introduction explores the trope of 'pollution' as an example. The basis upon which each trope is defined and limited is worked out in each chapter, with the constant proviso that, as ecocritics like to say, 'the map is not the terrain'. My tropology is not definitive or exhaustive; it is intended to be enabling, not limiting.

Rhetorical analysis suggests that the meaning of tropes is closely related to their wider social context. They are therefore not fixed entities but develop and change historically. 'Pollution', for example, derives from the Latin 'polluere' meaning 'to defile', and its early English usage reflects its theologico-moral origins: until the seventeenth century it denoted moral contamination of a person, or acts (such as masturbation) thought to promote such contamination. This essentially interior or subjective definition was gradually transformed into an exterior or objective – in fact, specifically environmental – definition between the seventeenth and nineteenth centuries, to the point where today only its later definition is widely known. The process is exemplary in that it highlights how people had to learn to hate their detritus, as well as indicating the deep cultural roots of the fear attaching to such immoral emissions. Most of the tropes in the book are traced to ancient origins before I explore their modern inflection.

The first citation of the modern sense of 'pollution' in the *Oxford English Dictionary* is from Francis Bacon's *The Advancement of Learning* (1605), a founding text of modern scientific methodology: 'The Sunne . . . passeth through pollutions, and it selfe remaines as pure as before.' Bacon seems here to be writing about a material, not a moral, phenomenon, which constitutes a crucial shift in meaning, and the very birth of a new way of seeing and thinking. Yet a key text in ecocritical history, Carolyn Merchant's *The Death of Nature* (1980), ascribes to Bacon a pivotal role in the construction of an environmentally destructive world view where 'the image of an organic cosmos with a living female earth at its center gave way to a mechanistic world view in which nature was reconstituted as dead and passive, to be dominated and controlled by humans' (1990: xvi). Thus the trope of 'pollution' is historically implicated in both environmental destruction and salvation since Bacon both 'discovered' pollution in the modern sense and, according to Merchant, helped make much more of it. (From an ecocritical perspective this reflects the ambivalent role of science as both a producer of environmental hazards and a critical analyst of them.) All the tropes examined in this book show some such ambivalence.

Another crucial feature of rhetoric is that tropes are assumed to take part in wider social struggles between genders, classes and ethnic groups. Cultures are not shaped equally by all their participants, nor are

the many world cultures equally powerful, and we must remain aware that even tropes that might potentially confront or subvert environmentally damaging practices may be appropriated. So although wilderness might seem to form a bulwark against an industrialised, materially progressive world view and social order, elements of that order such as manufacturers of four-wheel-drive Sports Utility Vehicles have still been able to appropriate the wild as the 'natural home' of their products in their advertisements (see Campbell 1998). Since these vehicles virtually require their own oil well to feed their huge engines, the irony of the juxtaposition might suggest to us that 'wilderness' has an ideological function in this case, helping to legitimise the conspicuous consumption of a privileged class and nation.

In ordinary usage, 'rhetoric' suggests language that substitutes for literal truth: it is all 'hot air'. The sense intended in this book, however, is emphatically interested in literal meaning. This would be a negligible point were there not important trends in literary and cultural theory that would seem to marginalise the role of literal truth in literature and culture, even in science itself. Structuralism and post-structuralism, for example, have emphasised the linguistic function of signs that relate to each other rather than refer to real things. Developments in other areas have reinforced this separation of language from reality; post-colonial and feminist literary theorists have shown that apparently real or 'natural' categories such as race and sex are better understood as 'cultural constructions' that covertly substitute normative claims about how, for example, women ought to be for how women actually or necessarily are. Feminist critics have distinguished between sex, which is a biological category, and gender, which is a social construction, and shown how a male-centred world view and social order have tried to legitimise changing gender constructions by referring them back to a supposedly fixed 'natural' sexual identity. 'Femininity' is not, according to many feminist theorists, a natural or necessary consequence of being genetically 'female', but rather a set of culturally prescribed behaviours. This argument largely or wholly detaches the female sex from a 'constructed' feminine gender identity that lives only in language and culture. Whilst this strategy provides opportunities for women to escape repressive stereotypes, it also represents a marked prioritisation of the claims of culture over those of nature.

'Constructionism' is a powerful tool for cultural analysis, and indeed, I have relied on it above in my discussion of the construction of 'pollution'. But it does suggest that 'nature' is only ever a cover for the interests of some social group. The challenge for ecocritics is to keep one eye on the ways in which 'nature' is always in some ways culturally constructed, and the other on the fact that nature really exists, both the object and, albeit distantly, the origin of our discourse. Lawrence Buell calls this 'a myth of mutual constructionism: of physical environment (both natural and human-built) shaping in some measure the cultures that in some measure continually refashion it' (2001: 6). The imprecision of that phrase 'in some measure' is entirely necessary since such reciprocal 'shaping' networks of nature and culture are bound to be complex to the attentive eye. Throughout this book, the aim is to balance a constructionist perspective with the privileged claims to literal truth made by ecology. Ecocritics remain suspicious of the idea of science as wholly objective and value-free, but they are in the unusual position as cultural critics of having to defer, in the last analysis, to a scientific understanding of the world.

Buell's phrase is certainly neat and useful, but part of the problem lies in the metaphor of 'construction' itself, which even in his revised version suggests an artefact like a building or machine, an autonomous work of minds and hands. I doubt many readers would automatically imagine a natural construction such as a termite mound. But if any building or machine, however technologically advanced, must be made by evolved animals (*Homo sapiens*) of materials of natural origin in accordance with natural 'laws' of mechanical physics, then it follows that all our vaunted cultural constructions are, in a sense, natural constructions. Perhaps the architectural metaphor obscures, or mystifies, the natural basis of all human culture and exalts only our own powers as a species. The excessively culturalistic implications of 'construction' are not easily avoided by a substitution of terms, but I tend to use 'shaping', 'elaboration' or 'inflection' to describe the complex transformations and negotiations between nature and culture, or between real and imagined versions of nature.

Returning to pollution with this in mind, we might observe that the rhetorical history of the term has been very closely aligned with the truth claims of ecologists and environmental toxicologists. Techniques of

chemical analysis have developed to the point where unimaginably small amounts of chemicals can be detected in the environment:

In dealing with environmental reports or policies or regulations we must always keep in mind that what was zero today will no longer be zero tomorrow. We have already moved from measuring micrograms in the 1950s to measuring picograms in the 1980s and 1990s. . . . At the same time, we must keep in mind that there is no relationship between toxic effects and our ability to detect a chemical. Small amounts only matter if they do effect living organisms.

(Baarschers 1996: 46–7)

Baarschers is highly critical of environmentalist 'hysteria' surrounding the presence in the environment of amounts of chemicals far below levels of observable toxicity. His frustration at widespread misunderstanding and ignorance of environmental science is reasonable, given that people regularly accept the very high risks involved in, say, smoking, whilst demanding the elimination of infinitesimal risks associated with high-anxiety technologies. Environmental pressure groups may also promote ignorant paranoia rather than educated critique (see Chapter 5).

At the same time, Baarschers does not account for the possibility that public anxiety is a response to precisely the extent and degree of environmental surveillance that he describes. Rather than simply divorcing the 'real risk' as defined by toxicologists from the 'perceived risk' felt by the public, then criticising people for not trusting the experts, we ought to see perceived risk as, paradoxically, a consequence of increasingly sophisticated surveillance. The more accurately the expert measures hazards, the greater the disjunction between official estimates of risk and any conceivable lay assessment based on personal experience, a process of alienation sociologist Ulrich Beck describes as 'expropriation of the senses' (1999: 55). Furthermore, nuclear, biological and chemical 'megahazards' undermine the traditional guarantors of industrial safety such as private insurance, compensation and State regulation of measurable and calculable risks precisely insofar as the threat revealed by environmental surveillance dwindles below the point of statistical determinability. We cannot, by ourselves, assess risks, and industrial safety scientists actually render risks less knowable and more fearful the more they minimise them.

The result, Beck argues, is that security claims produced by mega-hazard industries themselves produce public insecurity. Carson's reconstruction of 'pollution' to include minute quantities of pesticides as well as the gross, observable pollution of traditional industrial production was the continuation of an historical process of redefinition that continues in contemporary culture. The proliferation of types and sources of 'pollution' means that artificial light and noise may now be considered pollutants and carbon dioxide defined as a climatological pollutant even though it occurs naturally in vast quantities. Baarschers's attempt to rationalise and minimise this continual extension cannot reckon with the political and media culture that Beck's constructionist analysis illuminates.

This generalisation and, from an ordinary sensory perspective, dematerialisation of pollution has significant ramifications in our culture, constituting a 'world risk society' of impalpable, ubiquitous material threats that are often in practice indissociable from their cultural elaborations. 'Pollution' has seeped into our culture in many areas and on various levels of representation, from the implicit environmental concern of Sylvia Plath's poetry (Brain 1998) to explicit environmental thrillers such as Hollywood 'green thriller' *On Deadly Ground* (1994) (Kerridge 2000; Ingram 2000). Buell has set out four criteria of such 'toxic discourse' as a cultural genre: a 'mythography of betrayed Edens' (2001: 37) based, like Carson's parable above, in pastoral; horrified, 'totalizing images of a world without refuge from toxic penetration' (p. 38) founded most probably in the postwar fear of radioactive miasma from nuclear weapons; 'the threat of hegemonic oppression' (p. 41) from powerful corporations or governments as contrasted with threatened communities; and the 'gothicization' of squalor and pollution characteristic of the environmental exposé. These criteria, and the genealogy of 'pollution' set out above, enable a vital modern ecocritical trope to be identified in slum gothic such as Dickens' *Hard Times* (1854), environmental lawsuit dramas like *Erin Brockovich* (2000), and the exploration of contamination of place and family in Terry Tempest Williams' *Refuge* (1991). Andrew Ross identifies New York as Hollywood's perfect toxic landscape: 'On the other side of authority lies a city teeming with biological perils. Surely no other city has had such a fantastic bestiary of historical residents – from alligators to ninja turtles – in its sewage tunnels' (1994: 135).

However, in the postmodern world of media saturation, the modern trope of 'pollution' can become dangerously separated from its referent in ways that Baarschers would not recognise. In Don DeLillo's *White Noise* (1986) the protagonist and narrator Jack Gladney strives to come to terms with the proximity of an unexpected 'toxic airborne event':

Smoke drifted from red beams of light into darkness and then into the breadth of scenic white floods. The men in Mylex suits moved with a lunar caution. Each step was the exercise of some anxiety not provided for by instinct. Fire and explosion were not the inherent dangers here. This death would penetrate, seep into the genes, show itself in bodies not yet born.

(1986: 116)

In one way this seems to confirm Beck's argument that the risk anxiety cannot be relieved or even addressed by 'instinct', the lack of definite threat itself making it all the more pervasive. Even so, the narrative struggles to characterise the 'event' in terms of other, pre-existing narratives, such as the 'conquest of space' with its spectacular imagery and military-industrial brand names. (Pollution has become a spectacle that is almost detached from any real sense of threat thanks to the ubiquity of such images: 'the cloud resembled a national promotion for death, a multi-million dollar campaign backed by radio spots, heavy print and billboard, TV saturation' (p. 158). People living close to the emission rely on the media for its definition: at first, 'a feathery plume', then 'a black billowing cloud' and finally 'the airborne toxic event'. Reversing Baarschers's priority of fact over representation, the symptoms of victims change as the media risk reports are updated. The radical disproportion between saturation of imagery and paucity of fact marks the toxic event out as the kind of postmodern crisis with which ecocriticism must increasingly engage. Environmentalism and ecocriticism both rely on and produce exactly the sort of universalising truth claims or 'grand narratives' that postmodernists such as Jean Baudrillard regard as untenable. As historian Peter Coates argues:

According to universally disempowering postmodernist logic, the belief in the existence of a global environmental crisis is just another grand

narrative, for cultural theory insists that environmental threats (like everything else) are socially constructed and culturally defined: there are no shared, universal threats – different groups privilege those confronting their own particular interests.

(1998: 185–6)

Nevertheless, appeals to scientific truth claims as a counter to postmodernism are complicated by the fact that the science of ecology is itself undergoing transformation. Long-cherished notions of nature's inherent harmony are challenged by postmodern ecology, as set out in Chapter 3. We need to distinguish between postmodernist theory, which is mainly inimical to ecocriticism, and postmodern ecology, which will increasingly become its scientific reference point.

So these are the basic propositions of this book: environmental problems require analysis in cultural as well as scientific terms, because they are the outcome of an interaction between ecological knowledge of nature and its cultural inflection. This will involve interdisciplinary scholarship that draws on literary and cultural theory, philosophy, sociology, psychology and environmental history, as well as ecology. The study of rhetoric supplies us with a model of a cultural reading practice tied to moral and political concerns, and one which is alert to both the real or literal and the figural or constructed interpretations of 'nature' and 'the environment'. Breaking these monolithic concepts down into key structuring metaphors, or tropes, enables attention to be paid to the thematic, historical and geographical particularities of environmental discourse, and reveals that any environmental trope is susceptible to appropriation and deployment in the service of a variety of potentially conflicting interests. Ecocriticism makes it possible to analyse critically the tropes brought into play in environmental debate, and, more tentatively, to predict which will have a desired effect on a specific audience at a given historical juncture. To confront the vast, complex, multifarious agglomeration of ecological crises with the apparently flimsy tools of cultural analysis must be seen by the ecocritic as a moral and political necessity, even though the problems seem perpetually to dwarf the solutions.

The next chapter gives a brief account of the various political and philosophical orientations within the broad spectrum of environ-

mentalism, in part to make clear that no single or simple perspective unites all ecocritics. From Chapter 3 onwards, the analysis is arranged under the names of important ecocritical tropes, starting with 'Pastoral', the most deeply entrenched, and concluding with the construction of the 'Earth' as a unified whole. Within each chapter, the development of the trope is traced historically and, in some cases, geographically, and I mix discussion of canonical texts and critics with more marginal materials in order to indicate the depth and breadth that the field has already assumed. The chapters follow a rough trajectory from traditional concerns with the local to contemporary concepts of the global: from place to space, from earth to Earth. Throughout the book I will return to the implications of postmodern ecology for ecocriticism.

Chapters 3 to 5 examine a linked series of tropes that are heavily indebted to the Euro-American Judaeo-Christian narrative of a fallen, exiled humanity seeking redemption, but fearing apocalyptic judgement – 'Pastoral', 'Wilderness', 'Apocalypse' – and assess the significance of the shapes these tropes have acquired in the modern world. Chapter 6 compares two quite distinct conceptions of 'dwelling' upon the Earth: the European 'georgic' tradition of writing about working on the land, and the more recent identification of indigenous ways of life as potential models for a harmonious existence. To discuss these constructions of humanity's relationship with the natural world, however, takes for granted the problematic distinction between our species and other animals. Therefore Chapter 7 looks at the different ways in which animals, wild and domestic, are represented and conceptualised. I argue that reconsideration of the idea of 'the human' is a key task for ecocriticism, tending to drag it away from pastoral and nature writing towards postmodern concerns such as globalisation and 'cyborg' interfaces of humans with technology. In the final chapter, I explore the meanings that have clustered around the extraordinary images of the whole Earth from space, ranging from global marketplace to precious super-organism.

2

POSITIONS

'Environmentalism' is relatively young as a social, political and philosophical movement, but already a number of distinct eco-philosophies have emerged that seem as likely to compete with each other as to combine in any revolutionary synthesis. Each approach understands environmental crisis in its own way, emphasising aspects that are either amenable to solution in terms that it supplies or threatening to values it holds most dear, thus suggesting a range of political possibilities. Each one, moreover, might provide the basis for a distinct ecocritical approach with specific literary or cultural affinities and aversions.

CORNUCOPIA

Despite the remarkable degree of consensus that exists amongst scientists about the environmental threats posed by modern civilisation, there are nevertheless some who argue that most, if not all, such dangers are illusory or exaggerated. This 'cornucopian' position is therefore, in an important sense, not environmentalist at all, and is in some cases financially supported and disseminated by anti-environmentalist industrial pressure groups. Free-market economists and demographers are amongst its most outspoken intellectual proponents, arguing that the dynamism of capitalist economies will generate solutions to environmental problems as

they arise, and that increases in population eventually produce the wealth needed to pay for environmental improvements.

The key positive claim put forward by cornucopians is that human welfare, as measured by statistics such as life expectancy or local pollution, has demonstrably increased along with population, economic growth and technological progress. They point out that, in the long run, the supposed scarcity of natural resources is belied by falling prices of food, minerals and commodities relative to wages; as a specific resource becomes harder to obtain, the price increases, leading capitalist entrepreneurs to search for substitute sources, processes or materials. The discovery of alternatives leads to a fall in price of the original material, such as the drop in real copper prices brought about by the widespread substitution of fibre-optic cables for copper wires. 'Scarcity' is therefore an economic, not an ecological, phenomenon, and will be remedied by capitalist entrepreneurs, not the reductions in consumption urged by environmentalists: 'The fact is that the concept of resources itself is a dynamic one; many things become resources over time. Each century has seen new resources emerge' (Beckerman 1995: 60). More people on the planet means more resourceful brains, more productive hands, more consumption and therefore more economic growth. The confidence of economist Julian Simon in the 'virtuous circle' of economic and demographic growth was such that he issued a standing bet:

You pick (a) any measure of human welfare – such as life expectancy, the price of aluminum or gasoline, the amount of education per cohort of young people, the rate of ownership of television sets, you name it; (b) a country (or a region such as the developing countries); (c) any future year, and I'll bet a week's or a month's pay that that indicator shows improvement relative to the present while you bet that it shows deterioration.

(Myers and Simon 1994: 21)

Simon won one bet, with ecologist Paul Ehrlich, over the scarcity of mineral resources as measured by prices during the 1980s. Ehrlich in turn has attacked Simon for 'brownwashing', which he describes as the use of spurious science to attack environmentalism (Ehrlich and Ehrlich 1998).

Alongside the claims of an endless cornucopia of wealth, growth and commodity production, Beckerman, Simon and others bring criticisms of environmental 'scare-mongering', pointing to inaccurate projections of global cooling and worldwide famine made by ecologists in the 1970s. They point to the acknowledged uncertainty in, for example, species extinction rates or global climatic modelling, and argue on this basis for inaction or, at best, further research.

It is certainly important to remember the vast improvements in measurable human welfare brought about in both developed and developing countries, albeit terribly inequitably, by economic growth and technological progress. Capitalism mobilises problem-solving capacities in humans that it would be wise not to underestimate. However, this position suffers from a major inconsistency: many of the environmental improvements enjoyed by post-industrial nations have not only been achieved by moving damaging industries to developing countries, but have been driven by the political agitation of the environmental campaigners cornucopians now claim are obstructing economic and technological progress. It is not capitalism alone that produces the solutions cornucopians identify, but entrepreneurs responding to morally motivated consumers and government regulations.

A more serious objection is that cornucopians take little or no account of the non-human environment except insofar as it impacts upon human wealth or welfare. Nature is only valued in terms of its usefulness to us. Many environmentalists argue that we need to develop a value system which takes the intrinsic or inherent value of nature as its starting point. This fundamental distinction is evident in the debate between Simon and conservation biologist Norman Myers, from which I have quoted above.

ENVIRONMENTALISM

The very broad range of people who are concerned about environmental issues such as global warming and pollution, but who wish to maintain or improve their standard of living as conventionally defined, and who would not welcome radical social change, will be described hereinafter as 'environmentalists'. Many value rural ways of life, hiking or camping, or are members of one of the mainstream environmental organisations such

as the Sierra Club, Nature Conservancy and Audubon Society in the USA, or the Royal Society for the Protection of Birds and the Council for the Protection of Rural England in the UK. They may be concerned about natural resource scarcity or pollution but would look to governments or non-governmental organisations such as charities to provide solutions, usually technological ones. Their hopes for curbing population growth, mainly seen as a problem for developing countries, would lie in family-planning campaigns rather than, say, State-sponsored sterilisation. Activism may range from recycling bottles and buying organic food to major commitment to conservation activity. In terms of philosophical and religious orientation, environmentalists still regard Western traditions such as liberal democracy, human rights, Christianity and notions of historical or scientific progress as valuable, to a greater or lesser degree, even in the light of environmental crisis. So characterised, a substantial proportion of the populations of developed countries would count as environmentalists. Political and consumer pressures wielded by environmentalists are responsible for many concrete improvements such as the rapid expansion in organic agriculture in recent years.

Environmentalism, then, is widespread and, in certain respects, very powerful. Political parties must at least pay lip service to it, and industries respond in ways that range from costly modifications to production processes to merely cosmetic 'greenwashing' to appeal to or appease it. At the same time, environmentalism, or 'shallow environmentalism' as it has been called, has been attacked by radical critics for the compromises it makes with the ruling socio-economic order. Each of the following approaches accuses environmentalists of failing to address the allegedly more fundamental malaise it has identified.

Many of the most prominent scientific proponents of environmental protection, such as Rachel Carson, Paul and Anne Ehrlich, E.O. Wilson and Stephen Schneider, espouse this position for the most part, although in terms of environmental philosophy and criticism, environmentalism has found few systematic defenders. Martin Lewis's *Green Delusions* (1994) combines a vigorous attack on radical environmentalism with a reformist programme that emphasises the role of science, technology and government policy change. Against the 'Arcadian' approach of radicals advocating de-urbanisation, use of non-synthetic products and low-technology solutions, Lewis's 'Promethean' environmentalism promotes

the 'decoupling' of human economy and natural ecology as far as possible, in order to protect nature. He points out that cities are not only centres of cultural vitality, but less environmentally costly than suburban sprawl or exurban flight, and argues that capitalism guided by educated voters and consumers can provide technological solutions to many problems of resources and pollution. The anti-interventionist, 'nature knows best' approach that Lewis ascribes to eco-radicals is inadequate: 'Prometheans maintain . . . that for the foreseeable future we must *actively manage* the planet to ensure the survival of as much biological diversity as possible. No less is necessary if we are to begin atoning for our very real environmental sins' (1994: 251). Richard North's *Life on a Modern Planet* (1995) adopts a similar position, setting out a moderate 'manifesto for progress'.

It may be said that this technocratic, managerial approach has already failed if we accept both the long-standing popularity of the cause and the continuing pace of environmental destruction. At the same time, the mainstream environmental movement not only has significant successes on specific issues such as ozone-depleting CFC emissions to its credit, but also represents the constituency to which radicals must appeal either for conversion or coalition. Successful radical organisations, such as Greenpeace, have attempted to maintain their reputation for radical activism whilst simultaneously promoting recycling and 'green consumerism'. The future of any of the more radical positions outlined here will probably depend upon a similar balancing act. Moreover, since most ecocritics espouse radical views, they will likewise seek to exploit environmentalism amongst readers whilst tempting them towards a politics or philosophy more adequate to the environmental crisis as they perceive it.

DEEP ECOLOGY

Of the four radical forms of environmentalism, deep ecology is the most influential beyond academic circles, inspiring many activists in organisations such as Friends of the Earth, Earth First! and Sea Shepherd. This position, and its variants, will recur most often in this book as the explicit or implicit perspective of ecocritics, and aspects of it will be discussed further in several chapters. The 'poet laureate' of deep ecology is Gary

Snyder (b. 1930; see Chapter 4) and its philosophical guru is Arne Naess. Naess sets out eight key points of the deep ecology platform in George Sessions's definitive anthology *Deep Ecology for the 21st Century* (1995). The crucial ones are as follows:

1. The well-being and flourishing of human and non-human life on Earth have value in themselves (synonyms: intrinsic value, inherent worth). These values are independent of the usefulness of the non-human world for human purposes.
4. The flourishing of human life and cultures is compatible with a substantially smaller human population. The flourishing of non-human life *requires* a smaller human population.

(Sessions 1995: 68)

The second of these points refers not only to developing but also to developed countries, whose populations consume far more per capita. Deep ecologists argue for long-term population reduction throughout the world. The lethal combination is that of rapid population growth in developing countries, which exacerbates environmental problems associated with poverty such as land pressure and deforestation, accompanied by rapid economic growth in developed countries, which exacerbates problems associated with wealth, such as domestic waste disposal and greenhouse gas emissions.

Many deep ecologists see the first point as distinguishing their position from environmentalism; whereas 'shallow' approaches take an instrumental approach to nature, arguing for preservation of natural resources only for the sake of humans, deep ecology demands recognition of intrinsic value in nature. It identifies the dualistic separation of humans from nature promoted by Western philosophy and culture as the origin of environmental crisis, and demands a return to a monistic, primal identification of humans and the ecosphere. The shift from a human-centred to a nature-centred system of values is the core of the radicalism attributed to deep ecology, bringing it into opposition with almost the entirety of Western philosophy and religion:

Deep ecology is concerned with encouraging an egalitarian attitude on the part of humans not only toward all *members* of the ecosphere,