

An Ecocritical Analysis of George Orwell's Coming Up For Air

Dilek BULUT*

Özet

George Orwell, *Coming Up For Air* adlı eserinde, hızlı kentleşme ve endüstriyel gelişmelerin doğal çevreyi yok edici etkileri üzerinde durmuştur. Çevre kirlenmesinin sonuçlarını açıkça ortaya koymaya çalışan romanda, doğanın yok olması modern toplumların yalnızca önemli bir sosyal sorunu olarak değil aynı zamanda ekonomik sorunu olarak ele alınmıştır. Roman, insan ve fiziksel çevresi arasındaki ilişkiyi incelerken, insanın doğal çevreden uzaklaşmasının altında yatan gerçekleri de bulmaya çalışmıştır. Doğaya karşı toplumsal bazda sorumluluk geliştirmeyi amaçlayan Orwell, ormanların yok edilmesi, nehirlerin kirlenmesi, kimyasal zehirlenme ve türlerin yok olması gibi çevre sorunları ön plana çıkararak yeni bir ekolojik dünya görüşü oluşturmaya çalışmıştır. Bu çalışmanın temel amacı da romanda konu edilen çevre sorunlarını henüz yeni ortaya çıkan bir edebi kuram olan ekoeleştirisinin bakış açısıyla incelemektir.

Anahtar Kelimeler: doğa, ekoloji, ekoeleştiri, teknoloji, kentleşme, Orwell, *Coming Up For Air*.

Abstract

George Orwell's *Coming Up For Air* concentrates on the disastrous effects of the rapid urbanisation and industrial activity over the despoilation of the natural environment. Perceiving the destruction of nature not only as a serious social concern but also as the major economic problem of the modern industrialised societies, the novel demonstrates the consequences of the environmental deterioration. The prevailing emphasis of *Coming Up For Air* is a commitment to the exploration of the relationship between man and his physical environment, investigating the underlying reasons of man's distancing himself from the natural environment. Calling for the construction of a social responsibility toward nature, Orwell in his novel brings major ecological issues like deforestation, pollution of rivers, chemical poisoning and the extinction of species into the foreground and hence, provides a new vision of ecological understanding of the world. Therefore, this study will address the major ecological problems introduced in the novel from the perspective of ecocriticism which is a recently developed critical theory.

Key Words: nature, ecology, ecocriticism, technology, urbanisation, Orwell, *Coming Up For Air*.

Written in the transition period between the two world wars, *Coming Up For Air* (1939) delineates fundamental changes in the major structure of the society both at the political and the cultural as well as the economic level. The social impacts of the historical and the political changes after World War I are the frustration and the

* Araş. Gör., Hacettepe Üniversitesi, İngiliz Dili ve Edebiyatı Bölümü

disillusionment of man with his mechanical lifestyle, ruled by material values. Disconnected from the natural world, modern industrial life causes the disruption of human identity leaving the individuals in a state of meaninglessness. While Roger Fowler depicts *Coming Up For Air* as a “brilliant comic achievement, full of wit and vitality” (1995: 148), Subhash Candra calls the book as an “anti-war novel” due to its presentation of the disastrous influence of war over the lives of the individuals (1998: 57). Similarly, Richard Rees also considers the book as a “prophesy of the outbreak of the second world war” (1961: 80). Overlooked by the critics, the concept of nature and the destruction of the natural environment occupy a major position in *Coming Up For Air*. The novel portrays the beautiful landscapes of England which are confronted by the threat of technology and industrial activity, reinforcing the replacement of the rural lifestyle with the urban lifestyle. The novel provides not only political and historical observations but also brings forth the problem of environmental pollution as an important social and economic issue, threatening the modern societies. With its prevailing emphasis on the exploration of the major ecological problems like deforestation, pollution of rivers, and chemical poisoning, *Coming Up For Air* offers the necessary material for the application of ecocritical theory which will enrich the understanding of the novel with a new ecological perspective.

Ecocriticism was first defined by William Ruekert as an “experiment with the application of ecology and ecological concepts to the study of literature” (1996: 105). For him ecology as a science bears an ultimate importance for the present and the future of the world. Likewise, Cheryl Glotfelty defines ecocriticism as the “study of the relationship between literature and the physical environment” (1996: 18). Characterised as an “interdisciplinary” field of study, ecocriticism incorporates science of ecology to literature, and makes it available to break the strictly drawn boundaries between disciplines (Love, 1999:560). The interdisciplinarity of ecocriticism requires constructing interrelationships between scientific and literary studies in its investigation of a literary text from an ecological perspective. With the aim of creating an ecological awareness towards environmental issues, ecocriticism adopts the fundamental principle of deep ecology that “everything is connected to each other” (Evernden, 1996: 93). In this connection, ecocriticism perceives human beings in their relation to the natural world and thus strives to establish the idea of “kinship to the nonhuman world” (Slovic, 1999: 26). Building up such a connection between man and nature leads ecocriticism to the observation of the literary representation of nature either as part of human beings or separate from them. Reacting against the anthropocentric thought which is a “human-centered approach” with a pursuit of human interests, ecocriticism encourages the development of the ecocentric thought (Callicott, 2001: 77). Unlike the anthropocentric thought which fails to perceive man as the plain member of the biotic community, ecocriticism views the earth as an organic system of a whole, working through the interaction of its components. The holistic view of the universe refuses to accept man as apart from the ecosystem since man is an inseparable part of this system. Anthropocentrism not only distinguishes man from the rest of the universe and but also denies the fact that other species also have the right to exist and manifest themselves in their natural habitat and thus legitimises the human exploitation of nature.

After analysing different representations of nature and challenging the stereotypes they create, ecocriticism undertook the responsibility to bring forth the tradition of nature writing to build an awareness for nature. In this connection, ecocriticism, beginning with the works of romantic writers, endeavours to determine whether an idealised concept of nature or an entirely new scientific view of nature is introduced. Thus, conceiving nature either as a source of aesthetic appreciation or as a medium to express their political ideas, romantic writers are often brought into a close scrutiny by the ecocritical writers. Under the light of ecocritical perspective, *Coming Up for Air* can be considered as a significant novel in its presentation of a scientific view of nature as a source of life.

The transformation of the values of the society from the ecocentric to the anthropocentric view can be observed in *Coming Up For Air* which is preoccupied with the observations of the imminent changes, brought by World War I. Reflecting upon the transition period from a traditional agricultural England towards an urbanised and industrialised society, the novel illustrates an individual's struggle to adapt himself to these changes. The gradual destruction of the natural environment threatened by the material values of an "ugly machine culture" is questioned by George Bowling, the main character of the novel (Meyers, 1991: 89). Bowling's spiritual bond with nature, which he sees as his true home, is juxtaposed with the anthropocentric view of the modern society in which Bowling tries to survive. His reaction against industrialisation goes parallel to his growing ecological vision. Perceiving a nightmare vision of the modern society which is seen as "necropolis, a city of shades and sleepwalkers" (Reilly, 1986: 224), Bowling sees nature as his real source of life without which he cannot survive: "And I was alive that moment when I stood looking at the primroses and the red embers under the hedge. It's a feeling inside you, a kind of peaceful feeling, and yet it's like a flame" (Orwell, 1939: 164). Disgusted by modern life which separates him from natural life, Bowling tries to recapture his lost connection with nature where his roots belong. For this reason he feels entrapped in an urban environment which he describes as a "prison with the cells all in a row" (Orwell, 1939: 14).

Technology's stimulation of the unbridgeable gap between human beings and the natural environment and its catastrophic results are revealed in Bowling's growing sense of frustration and spiritual despoliation. As a result of such a separation between man and nature, degradation of the natural environment through war and the use of nuclear weapons are presented as one of the most harmful consequences of technological progress. The novel perfectly illustrates the appalling consequences of technology which is responsible for not only the destruction of the natural environment but also the gradual annihilation of human beings. Through the ironic remarks of Bowling, the novel unravels the terrifying aspect of technological development:

Another quarter of a minute or so, and I raised my head again. Some of the people still rushing about, others were standing as if they'd been glued to the ground. From somewhere behind the houses a huge haze of dust had risen up, and through it a black jet

of smoke was streaming upwards. And then I saw an extraordinary sight. At the other end of the market-place the High Street rises a little. And down this little hill a herd of pigs was galloping, a sort of huge flood of pig-faces. The next moment, of course, I saw what it was. It wasn't pigs at all, it was only the schoolchildren in their gas-masks. (Orwell, 1939: 219-220)

This might be seen as evidence which most explicitly shows that technology does not provide human beings with a comfortable life-style which leads them to perfection; rather it causes the elimination of human beings from the surface of the earth. Significantly enough, ecocritical assumption also sees war as an essential element in the destruction of the natural environment. "Capitalism and militarism", as Jonathan Bate points out, are the "sources of the environmental degradation and that it will therefore be impossible to harmonise humankind with nature until we remake society in a more compassionate and less competitive mould" (2000: 38).

Considering the immediate threat of technology which reduces the world into a waste land, impossible to live on, it would not be surprising to find George Bowling in a state of total hopelessness and helplessness. Bowling feels isolated from the society, which is an exile for him. The loss of the meaning of his life leads Bowling to escape into his past through a remembrance of his childhood place, Lower Binfield, where "it was always summer" as he describes it (Orwell, 1939: 103). The separation of man and nature as a result of industrialisation and its disastrous influence on human life are underlined by ecocriticism which tries to reconcile man and his natural environment. Harold Fromm comments on the role of technology and modernisation in alienating man from nature and causing the construction of a dichotomy between man and nature. He states that:

It has been said again and again that modern Western man's comfortable life amidst the conveniences of technology has caused him to suffer a spiritual death, to feel alienated, empty, without purpose and direction. (Fromm, 1996: 32)

Claiming that human beings are evolved from, moulded and nourished by the earth, ecocriticism asserts that "the individuality of an organism is not definable except through its interactions with its environment, through its interdependencies" (Kroeber, 1994: 7). Furthermore, man's rootedness on earth and the necessity of the natural environment for the integrity of the human self is emphasised by Neil Evernden who points out that: "There is no such thing as an individual, only an individual-in-context, individual as component of place, defined by place" (1996: 103). Similarly, the sense of frustration and isolation from the society enhances Bowling's desire to be reunited with nature to form a kind of reconciliation with it. Mark Connelly comments on this aspect of the novel and states that:

Coming Up For Air focuses on Bowling's quest for a historical connection with nature, with small town life and values. He longs for fishing and homemade bread...As an adult in the middle of the twentieth century, however, Bowling finds nature painfully absent from his life. His frankfurters are stuffed with fish; his cigars are made from cabbage. Fitted with artificial teeth he glumly comments on the chemicals in his beer and the rubbish in his fishing hole. (1987: 120)

From the ecocritical point of view, Bowling's dissatisfaction with his life and the refraction in his personality, and in Joseph Browne's words "fragmented sense of self", stem from his loss of connection with the natural environment as his dwelling place (1986: 156). The thought of nature enables him to discover the meaning of his existence since he can perceive himself as a component of nature which defines his personal identity. Without it, he seems to be lost in an urban environment. Likewise, he sees fishing as an essential part of his life, an activity which connects him to the natural environment. He expresses his dissatisfaction with exploitative attitude of modern civilisation toward nature as follows:

I'm sentimental about my childhood-not my own particular childhood, but the civilisation which I grew up in and which is now, I suppose, just about its last kick. And fishing is somehow typical of that civilisation. As soon as you think of fishing you think of things that don't belong to the modern world... Does anyone go fishing nowadays, I wonder?... Anywhere within a hundred miles of London there are no fish left to catch... When I was a kid every pond and stream had fish in it. Now all the ponds are drained, and when they aren't *poisoned with chemicals* from factories they are full of *rusty tins* and *motor-bike tyres*. (1939: 74, 75 italics are mine)

Bowling recognises the value of nature in human life and hence aspires to go back to his old way of life which is in harmony with the natural environment. When he looks at the natural environment, Bowling can observe the change in the society's perception of nature which is no longer considered as an inseparable part of human life. Nature's value is determined by the material benefit it will offer to human beings. Refusing to accept the material value of nature which is seen as a commodity to be consumed, Bowling acknowledges "the intrinsic value" of nature which connotes the idea that nature has value in itself free from material value given by human beings (Devall, 2001: 31). His ecological vision enables him to refrain from seeing nature as an object to be used and benefited from; thus, he manages to see the fact that all living beings have the right to flourish and maintain their life on earth.

Apart from his ability to perceive the inherent worth of nature, Bowling in this quotation, also shows a significant ecological awareness by pinpointing the problem of

the extinction of species and pollution of rivers by chemicals. Rusty tins and motor-bike tyres which Bowling thinks as the most hazardous polluters of the rivers are the integral part of industrialisation and modern civilisation. However, it is also noteworthy that the irrecoverable damage of the chemicals to the ecosystem is one of the primary occupations of the ecologists. Rachel Carson states that:

The most alarming of all man's assaults upon the environment is the contamination of air, earth, rivers, and sea with dangerous and even lethal materials... In this now universal contamination of the environment, chemicals are the sinister and little recognised patterns of the radiation in changing the very nature of the world. (1962: 15)

In opposition to modern society's anthropocentric view of nature which is seen as an object to be abused for promoting human ends, George Bowling as an individual feels a personal resentment at the sight of nature turned into a site of waste disposal. Bowling's consideration of the major ecological problems of the depletion of the natural resources through industrial activity, the extinction of species and the pollution which is caused by chemicals are significant issues for the ecocritical thought which aims to create an ecological consciousness by warning people about the outcoming ecological crisis which results from the human exploitation of nature. Cheryll Glotfelty points out that:

Regardless of what name it goes by, most ecocritical work shares a common motivation: the troubling awareness that we have reached the age of environmental limits, a time when the consequences of human actions are damaging the planet's basic life support systems. We are there. Either we change our ways or we face global catastrophe, destroying much beauty and exterminating the countless fellow species in our headlong race to apocalypse. (1996: 20)

Similarly, Bowling is disturbed by the awareness that human intrusion to natural life will eventually lead to a catastrophic future which will bring not only the destruction of nature but also the total annihilation of the human race. The image of nature falling into pieces and gradually disappearing from the memories of people cause Bowling to develop a sceptical approach towards the technological mastery of man over nature which also determines the general atmosphere of the novel. He loses his hopes for future and asks himself: "What's ahead of us? Is the game really up? Can we get back to the life we used to live, or is it gone forever?" (Orwell, 1939: 223). Embodied with the ecocentric perspective which enables him to foresee the coming ecological disaster, Bowling experiences a sense of helplessness when he witnesses the ignorance of people about nature. For this reason, he declares himself as the "only person awake in the city of sleep-walkers" (Orwell, 1939: 28).

Bowling's refusal to live in the present and his remembrances of the past constitute a direct opposition between rural and urban England while reinforcing his isolation from modern society. However, Bowling's view of childhood experiences does not simply bring forth a nostalgic picture of an idyllic past; on the contrary it has an important function of undermining the image of modernisation and technology as means of welfare and progress. Through a sharp contrast between the past and the present, the novel proves that technology cannot be seen as the progress in human life but the destroyer of it.

According to the ecocritical perspective, human life is put into danger not only in the manner of spiritual deterioration but also physically human beings are forced to lead an artificial life style as a result of technology which "undermines the integrity of the natural systems across the planet" (Devall, 2001: 21). Technology constitutes the greatest challenge to natural life in the way that nature no longer seems to be necessary for human life since "the tract of land is now represented as a possible site of contaminated waste" (Deitering, 1996: 199). Within the structure of the novel, the destruction of what is natural and its replacement with the artificial commodities of the capitalist consumer culture is emphasised by George Bowling who narrates his private experiences of the new way of life:

Everything comes out of a carton or a tin, or it's hauled out of a refrigerator or squirted out of a tap or squeezed out of a tube... Everything slick and streamlined, every thing made out of something else. Celluloid, rubber, chromium-steel everywhere, arch-lamps blazing all night, glass roofs over your head, radios all playing the same tune, no vegetation left, everything cemented over, mock-turtles grazing under the neutral fruit-trees. (1939: 25, 27)

As it is clearly seen in this quotation, Bowling's criticism of modernisation goes beyond the society and its values to incorporate the wrong economic policies which legitimise the domination of nature. Bowling's critical attitude to industrial capitalism, "commercialism" (Fowler, 1995: 148) and consumer culture which is based on the material profit made by the production and satisfaction of ever-increasing desires, emerge from the capitalist economy's conception of nature as a commodity. All throughout the novel, Orwell tries to show the cataclysmic results of this false ideology which tends to see nature as an endless source of raw material to be benefited from. During his visit to the Lower Binfield, George Bowling discovers to his disappointment that the place has been destroyed almost totally by buildings, factories, and commerce. Nature has been turned into a dustbin after its resources have been depleted completely. He describes the destruction of nature as follows:

They'd left a few trees to hide it. But yes, there it was. It was my pool, all right. They'd drained the water off. It made a great round hole, like an enormous well, twenty or thirty feet deep. Already it was half full of tin cans. (Orwell, 1939: 215)

What is explicitly shown in this quotation is that nature is represented by the consumer culture in terms of instrumental relationships which are governed by the anthropocentric thought, focused on the subordination of nature. Bowling's hatred of capitalism and consumer culture confirms the ecocritical thought which aims to "stop industrial capitalism", and to prevent ecological disaster (Kerrige, 2000: 244). Commercial activity which is held responsible for the deterioration of the natural environment and its ideology of abusing natural resources and then the disposal of the waste to nature, change the structure of the natural ecosystems giving them irreversible damage. Significantly, the necessity of the ultimate change in the policies of the governments is emphasised by the Norwegian eco-philosopher Arne Naess as follows:

Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present. The ideological change is mainly that of appreciating life quality (dwelling in situation of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between bigness and greatness. (1995a: 68)

The solution to the environmental issues - depletion of natural resources, pollution and extinction of species that are introduced as essential social problems in the novel - is offered by ecocriticism which tries to establish an equilibrium for the maintenance of a system of interdependencies. Starting from the idea of the satisfaction of the vital needs, ecocriticism advocates the supplying of the needs of the present day without compromising the resources of the future generation which is called "sustainable development" (Heise, 1997: 2). The pursuit of a policy of converting all the wastes into recyclable materials for the controlled management of the sustainable resources requires the "worldwide recognition of the possible environmental disaster" (Love, 1999: 225). Within the context of the novel, Orwell encourages the societies for the sustainable use of natural resources by showing the consequences of environmental destruction. The novel states that the limitless production and the careless consumption render the natural inhabitants of the world vulnerable to the overwhelmingly destructive power of chemical poisoning. George Bowling recognises humanity's overdependence on nature as a life-sustaining process of intercommunications, and his quest for a new lifestyle in harmony with nature reveals the novel's insistence on the necessity of significant changes in the anthropocentric cultures of modern societies by fostering the idea that the survival of human beings depends on the survival of the planet. Valerie Meyers states that:

In *Coming Up For Air* his [Orwell] view of England is much less optimistic and more conservative. He continues to attack the machine, which Bowling associates with the deterioration of food, houses, and the natural environment, and the increase of the

destructive power of modern weapons... He could not bear the fact that, although it brings greater wealth, industrialisation inevitably makes society and culture more homogeneous. He could not reconcile (as who can?) the benefits of technology with its capacity to harm and pollute. (1991: 99-100)

In addition to the problems of pollution, extinction of animal species, chemical poisoning and the menace of consumerism, the novel also enacts another important ecological problem, that is, deforestation. Apart from his discovery of the secret fishing pool in the woods which has been drained and turned into a rubbish dump, Bowling is astonished on his visit to Lower Binfield that all the trees have been cut down and replaced by factories. His private concern about the disappearance of nature from human life turns out to be a kind of public issue which requires immediate change of policies. He points out that:

Where those houses stood there used to be a little oak plantation, and the trees grew too close together, so that they were tall and thin, and in the spring the ground underneath them used to be smothered in anemones. Certainly there were never any houses as far out of the town as this... Where was the town I used to know? It might have been anywhere. All I knew was that it was buried somewhere in the middle of that sea of bricks. Of the five and six factory chimneys that I could see, I couldn't even make a guess at which belong to the brewery. (Orwell, 1939: 176,177)

Bowlings's sensitive approach to the ecological problems coincides with ecocriticism which is concerned with the investigation of environmental issues and the exploration of texts in terms of their responses to the environmental crisis. One of the central debates that emerges in this quotation is the question of how the value of the natural environment is assessed in relation to human needs and desires. The crucial fact that attracts Bowling's attention is that it is the economic and political interests that determine a society's approach to nature. The notion of nature for a modern industrial society encompasses the construction of hegemony over nature which is required to supply the raw material for the society's well-being. Therefore, Bowling's ecological vision of nature as inherently harmonious, peaceful, and independent of its functions for human society is confronted by modern society's anthropocentric vision of nature which is ready to be sacrificed for the sake of technological progress.

For ecocriticism the primary cause of environmental destruction by human hand is "man's presumption of his own apartness from nature" (Bate, 2000: 36), and therefore, the identification with nature to provide the reintegration of human beings and the outside physical environment are offered as the only solution to prevent the problems of pollution and deforestation. Hence, the relationship between the individual and the environment is that of "inter-relatedness" since man is considered as an integral part of the ecosystem (Evernden, 1996: 93). This system of interconnectedness of man and

nature is a significant element which explains the reason of Bowling's sudden happiness which he cannot make sense of:

I was looking at the field, and the field was looking at me. I felt-I wonder whether you'll understand. What I felt was something that's so unusual nowadays that to say it sounds like foolishness. I felt *happy*. (Orwell, 1939: 163)

Through his personal interaction with the natural environment, Bowling recuperates his joy of life and begins to see himself as part of nature. To provide the identification of man with the natural environment ecocriticism encourages the development of the ecological concept of "Self-realisation" which is introduced by Arne Naess (1995b: 226). Self-realisation which ensures the "meaning of life and the joy we experience in living", implies the broadening of the human self to embody all the other selves in the universe (Naess, 1995b: 226). Human identification with nature enables human beings to see themselves as part of the universe, and nature as their real habitat as in the case of George Bowling who can grasp the core of his identity and meaning of his life in his relation to the natural environment. Bowling's discovery of the importance of the natural environment in human life and his astonishment at the recognition of the interconnected relationships of the organisms in the ecosystem can better be observed in the following lines:

That pool, for instance-all the stuff that's in it. Newts, water-snails, water-beetles, caddis-flies, leeches, and God knows how many other things that you can only see with a microscope. The mystery of their lives, down there under water. You could spend a lifetime watching them, ten lifetimes, and still you wouldn't have got to the end of that one pool. And all the while the sort of feeling of wonder, the peculiar flame inside you. It's the only thing worth having, and we don't want it. But I do want it. (Orwell, 1939: 164)

Bowling's development of Self-realisation includes the recognition that there is not a distinctive self which exists in separation from the other selves. His identification with nature provides him with an awakening that human beings as an integral member of the ecological community are not only destroying natural life but also their own race. The recurring image of the novel, that is, coming up for air, is significant in its delineation of the human self as an animal which is trying to survive in an extremely polluted environment: "Coming up for air! But there isn't any air. The dustbin that we're in reaches up to the stratosphere." (Orwell, 1939: 216). Jeffrey Meyers states that it is "sea-turtles" that come to the surface to breathe air and then sink down again (1978: 102). Bowling identifies himself with a nonhuman living being and this identification with nature not only enables him to perceive his own identity in relation to the other selves but also provides him with an ecological understanding which makes him recognise that human domination over nature leaves no place for the other inhabitants of nature to exist and flourish on earth.

In conclusion, Orwell's *Coming Up For Air* can be accepted as an ecologically-oriented text which is preoccupied with the themes of chemical poisoning, deforestation, pollution of rivers, and the extinction of species. With its prophesy of future ecological crises, Orwell's *Coming Up For Air*, which belong to the 1930s, deserves much more value and appreciation especially when it is taken into consideration that Orwell warns humanity against ecological disasters in the 1930s long before the development of the environmental movement and ecological consciousness during the 1960s and the 1970s. The detailed analysis of the novel in terms of ecocritical ideas has demonstrated that Orwell brings forth the ecological issues as important social and political problems of the present day generation as well as of the future. He advocates outstanding changes not only on the individualistic plane that require the changing of the thoughts of society but also on the political plane which necessitates the change in the capitalistic economic policies of the states. When these ecological issues which are discussed in the novel are taken into consideration, it would not be wrong to declare Orwell as an early environmentalist who warns people about the consequences of ecological disaster.

Bibliography

- Bate, Jonathan. (2000). *The Song of the Earth*. Cambridge: Harvard UP.
- Browne, Joseph. (1986). "The Times of Their Lives: George Orwell's *Coming Up For Air*" B. Oldsey-J. Browne (eds.), *Critical Essays on George Orwell*. Boston: G. K.Hall.
- Callicott, J. Baird. (2001). "Multicultural Environmental Ethics", *DAEDALUS* 130: 77-97.
- Chandra, S. (1998). *George Orwell: Convictions and Contradictions*. Patna: Janaki.
- Connelly, Mark. (1987). *The Diminished Self: Orwell and the Loss of Freedom*. Pittsburg: Duquesne UP.
- Devall, Bill. (2001). "The Deep, Long-Range Ecology Movement", *ETHICS AND THE ENVIRONMENT* 6:18-41.
- Deithering, Cynthia. (1996). "The Postnatural Novel" C. Glotfelty-H. Fromm (eds.), *The Ecocriticism Reader*. London: Georgia UP: 196-203.
- Evernden, Neil. (1996). "Beyond Ecology", C. Glotfelty-H. Fromm (eds.), *The Ecocriticism Reader*. London: Georgia UP: 92-104.
- Fowler, Roger. (1995). *The Language of George Orwell*. London: Macmillan.
- Fromm, Harold. (1996). "From Transcendence to Obsolescence" C. Glotfelty-H. Fromm (eds.), *The Ecocriticism Reader*. London: Georgia UP: 30-39.
- Glotfelty, Cheryl. (1996). "Literary Studies in an Age of Environmental Crisis" C. Glotfelty-H. Fromm (eds.), *The Ecocriticism Reader*. London: Georgia UP, xv-xxxvii.

- Heise, Ursula K. (1997). "Science and Ecocriticism"
<http://www.asle.umn.edu/archive/intro/heise.html> [2.07.2003]
- Kerridge, Richard. (2000). "Ecothrillers: Environmental Cliffhangers" L. Coupe (ed.). *Green Studies Reader*. London: Routledge: 242-249.
- Kroeber, Karl. (1994). *Ecological Literary Criticism*. New York: Columbia UP.
- Love, Glen. (1999). "Ecocriticism and Science: Toward Consilience?", *NEW LITERARY HISTORY* 30: 561-576.
- Meyers, Jeffrey. (1978). *A Reader's Guide to George Orwell*. London: Thames and Hudson Press.
- Meyers, Valerie. (1991). *George Orwell*. London: Macmillan Press.
- Naess, Arne. (1995a). "The Deep Ecological Movement: Some Philosophical Aspects" G. Sessions (ed.), *Deep Ecology for the Twenty-First Century*. Boston: Shambhala: 64-84.
- — —. (1995b). "Self-Realisation: Ecological Approach to Being in the World", G. Sessions (ed.), *Deep Ecology for the Twenty-First Century*. Boston: Shambhala: 225-239.
- Orwell, George. (1939). *Coming Up For Air*. New York: Penguin Books Ltd.
- Rees, Richard. (1961). *George Orwell*. London: Secker and Warburg.
- Reilly, Patrick. (1986). *George Orwell: The Age's Adversary*. London: Macmillan Press.
- Rueker, William. (1996). "Literature and Ecology: An Experiment in Ecocriticism", C. Glotfelty-H. Fromm (eds.) *The Ecocriticism Reader*. London: Georgia UP: 105-123.
- Slovic, Scott. (1999). "Giving Expression to Nature", *ENVIRONMENT* 41: 25-32.