RECONCILING HUMANS WITH NATURE

USING MARX'S DIALECTICAL MATERIALISM TO CRITICALLY EXPLORE PHILOSOPHY AND POLITICS IN CONTEMPORARY ENVIRONMENTALISM AND TO DEVELOP A PERSPECTIVE ON ENVIRONMENTAL JUSTICE

Dissertation submitted by Richard Jordi in partial fulfilment of a Master of Philosophy degree in Environmental Science

Department of Environmental and Geographical Science
University of Cape Town

April 2000

ACKNOWLEDGEMENTS

I would like to thank Sophie Oldfield for her thorough and sympathetic supervision of my work on this thesis, and Kevin Winter and Richard Hill for their guidance and support. Thanks also to Niki Dunckley for doing the proof-reading under considerable time pressure. Any errors made during final changes to the thesis are my responsibility.

This dissertation was funded by the University of Cape Town and by the Centre for Science Development.

ABSTRACT

Nature exists as an objective reality on which human beings rely physically and spiritually. We are part of nature. But throughout human and environmental history 'nature' has also existed as a human idea and cultural construct. We project our values, fears, and aspirations onto our environment so that in nature we see a reflection of our own historical development and social existence. Our different class, cultural, and gender life experiences generate different attitudes towards our natural environment. For the most part we regard the ideas and attitudes towards nature as natural, and not as ideological constructions.

Dominant technocentric and ecocentric discourses within contemporary environmentalism unselfcritically regard nature as a commodity and as a moral authority respectively. These alienated and romanticised views of nature reflect our contemporary estrangement from the natural world that we are part of. Marx's dialectical materialism provides the analytical tools to critique the human/nature dualism expressed by technocentrism and ecocentrism and offers a more dynamic, historical, and ecological

perspective on the changing relations between humans and their natural environment.

As humans we are also apart from nature. We have a unique capacity to stand aside and consciously shape our relation with nature, albeit within the constraints and possibilities offered by ecological processes. How we define that relationship is for the most part determined by our own human economic, social, and political relations. This thesis argues that our contemporary alienation from, and abuse of, nature emerges out of the development of capitalist economic and social relations and the ethic and practice of the private ownership of natural resources.

Ironically, it is the most alienated and impoverished sector of human society that offers the most progressive perspective on reconciling humans with nature. The struggles of urban and rural working class and poor communities for environmental justice integrates social, economic, political, and ecological issues in a way that poses a radical challenge to the alienated dualism of mainstream environmentalism. This thesis explores and highlights the progressive possibilities that the environmental justice perspective offers in our struggle for social justice and ecological wisdom.

TABLE OF CONTENTS

CHAPTER 3
NATURE AS A COMMODITY: A CRITIQUE OF TECHNOCENTRISM

CHAPTER 4
NATURE AS A MORAL AUTHORITY: A CRITIQUE OF ECOCENTRIC ENVIRONMENTALISM

INTRODUCTION

The interaction of human beings with their natural environment is as old as human history itself. Just as the course of human social, cultural, and economic development has been enabled, constrained, and shaped by varied and changing biophysical conditions, so human society has impacted on and modified the natural environment on which it depends. Even primitive people, who "lived lightly upon the land," manipulated the natural resources and ecosystems around them (Beinhart and Coates, 1995: 3). In the Middle Stone Age for example, hunters and gatherers in the south-western region of South Africa discovered that by burning the fynbos vegetation they could encourage the growth of bulbous plants which provided them with an important food source (Cowling and Richardson, 1995: 113). In our contemporary world it is probably impossible to find any part of the natural environment that has not been modified by human intervention (Beinhart and Coates, 1995: 3). Humans are unique in being able to stand apart from nature and transform it dramatically to meet their socially defined needs, unlike other animal species whose impact on their natural environment is tempered by their being an integral part of their ecosystems.

Over the last half century the accumulated negative impact of human activity on the natural environment has become more and more apparent (Gare, 1995:73). The contemporary global environmental (or ecological) crisis embraces natural resource depletion, pollution of land, sea, and air, and the destruction of ecological processes and systems on which human and non-human life depends. On the one hand, certain features

of this crisis such as global warming, desertification, and the depletion of the ozone layer can be characterised as part of a long-term chronic illness. On the other hand, we have a more immediate and direct experience of our degradation of the environment, through the acute destructive impact that our exploitation of natural resources and our disposal of pollutants have on the ecological systems that sustain life on our planet. These two levels of negative human impact are closely connected. The burning of vegetation in a particular area may not only impact on local biodiversity and encourage soil erosion, but the release of carbon dioxide contributes to the greenhouse effect and its systemic impact on global climate patterns (Goudie and Viles, 1997: 10-11).

This thesis is not so much concerned with an examination of the negative effects of human economic activity on our natural environment as it is with exploring some of the dominant social responses to the ecological crisis. It seeks to do this primarily at a philosophical level, insofar as I argue that it is through our socially and culturally constructed concepts of both nature and our relationship with nature that we shape our frameworks for environmental action.

This thesis critically explores two broad and dominant responses to the contemporary ecological crisis within the environmental movement[i]. The two perspectives that I focus on are that of technocentric mainstream environmentalism, which embraces environmental economics and environmental reformism, and that of the more radical ecocentric deep ecologists[ii]. The thrust of my analysis critiques the philosophical conceptions of the relation between humans and nature that inform the framework of

policy and practice of these two perspectives. My critique is informed primarily by a Marxist philosophical perspective and by the conceptualisation that Marx developed of the relations of humans to nature in his early writings.[iii]

I argue that both the technocentric and ecocentric perspectives are philosophical expressions of our contemporary social alienation[iv] from nature. As such, they are ill-equipped to challenge fundamentally our abuse of our natural environment, since that abuse is a feature of that same condition of estrangement. It is necessary that we reach beyond a worldview that is part of the problem in order to confront that problem. The first step in this direction is to become aware that our thoughts about nature and our relation to it might not be simply 'true', but might well be an expression of specific social and cultural experiences and interests - experiences and interests which are bound up with our socio-economic, and hence, environmental practices. This thesis seeks, at least, to encourage some degree of philosophical self-criticism.

Environmental economics and environmental reformism regard nature as a thing to be valued monetarily, utilised economically, and managed practically, but do not question the structure of social, political, and economic relations through which we regard nature in this instrumental way. While this utilitarian view might acknowledge that primitive people had a different relation to nature or that to Eastern wisdom such a human/nature dualism is inconceivable, the arrogance of scientific rationality tends to regard these views as historical curiosities in relation to its own superior access to 'truth'. This is an example of what Marx referred to as "commodity fetishism," when the specific historical

form of a relationship that human society and culture have constructed (in this case our utilitarian regard for nature) is assumed to be an objective unchangeable reality, dictated by nature (Soper, 1996: 85-7).

Ecocentric perspectives, expressed most clearly by deep ecology, likewise set up a duality - an image of a pure nature separate from profane humanity; a nature to be valued intrinsically rather than economically. This expression of alienation reifies nature, and projects human moral values onto nature (such as harmony and balance) which it then presents as the objective laws of nature according to which human society should organise itself (Dickens, 1992: 84; Grundmann, 1991).

This alienated thinking is by no means peculiar to discourses within the environmental movement. It is rather an expression of a wider popular, scientific, philosophical, and religious tradition that characterises Western thought. Dualistic, rational, linear, and mechanistic thinking has its origins in the Hebraic separation of spiritual life and physical existence, and in the Greek elevation of reason over the more intuitive and instinctive capacities of human beings (Barrett, 1996: ix). The essential, and debilitating, feature of this worldview is that it cannot handle contradiction. It strives to resolve contradiction or establish a dualism rather than embrace a unity of opposites (Barret, 1996: ix). According to this mechanistic reasoning humans cannot be part-of-nature and apart-from-nature at the same time. Instead, it would argue, we have developed in a linear fashion out of the woods (so to speak) to conquer, tame, dominate, exploit, utilise, or manage nature, and this detachment is regarded as an uncomplicated measure of progress.

In his early philosophical writings, Marx explored the dynamic tension between the fact that humans are physically and spiritually both part-of-nature and apart-from-nature, and he argued that a conscious appreciation of this contradictory and dynamic unity was essential for the full realisation of human social potential (Parsons, 1977). Marx argued that our contemporary emotional and spiritual detachment from nature, as a result of our turning nature into a commodity, is as much a measure of the alienation of human society from its real human nature as it is a mark of progress (Parsons, 1977). Similarly, although from an entirely different tradition, the ancient Chinese philosophy of Taoism regards Western estrangement from nature as contrary to the unity of life's processes (Watts, 1975: 37-55). This more holistic and dynamic perspective on the relation between humans and nature is also emerging forcefully within contemporary ecological theory (Capra, 1996).

The general philosophic problem in both the technocentric and ecocentric perspectives is their inability to critically appreciate their own social constructions of nature and their assumption that those constructions are reality. By virtue of its very physicality, and through our largely empirical regard for our natural environment, the non-human life around us appears to be an uncomplicated reality. Our very understanding of the word 'nature' carries with it the suggestion of essence, of a naturalness that is uncontaminated by human values (Cronon, 1995: 34-5).

But consider for a moment how profoundly human our ideas of nature are and how loaded these ideas are with cultural symbolism. Nature is pure and sacred for some, while it is hostile and savage for others. Nature is sometimes seen simply as a commodity, sometimes as a moral authority, as an avenging force of destruction, or as a wilderness to be tamed and dominated (Cronon, 1995: 36-50). Even the notion that nature is one thing, a universal reality, is very specific to contemporary Western culture (Cronon, 1995: 51). We imbue this objective reality with human values and meaning – values and meaning that are not shaped by nature but by humans, i.e. by our historical, cultural, class, and gender experiences of our environment. What is a source of profit for some may be a spiritual experience for others. What has recreational value for those who can afford it may be a source of hardship for others.

One of the most ironic expressions of the unnaturalness of our conception of nature can be found in the efforts of the Nature Company to market 'authentic' nature goods (Price, 1995). Within the vast American shopping malls it creates a virtual reality of 'naturalness' – music, soft colours, flowing water - that appeals directly to the yearnings of consumers for authenticity. Nature here, has lost its real physical place; and through simulation has become a set of abstractions, symbols, moods, and emotions (Price, 1995: 186-198). As Cronon argues,

> 'nature' is not nearly so natural as it seems. Instead, it is a profoundly human construction. This is not to say that the non-human world is somehow unreal or a mere figment of our imaginations – far from it. But the way we describe and understand that world is so entangled with our own values and assumptions that the two can never be fully separated. What we mean when we use the word 'nature' says as much about ourselves as about the things we label with the word (Cronon, 1995: 25).

This philosophical critique may be regarded as purely academic, and even as undermining of the necessary practical task of getting on with saving the environment from human abuse. But the practical task – the policies and actions of various environmental perspectives – is informed by the ideas of what nature is and how humans should relate to it. The practical politics of environmentalism is directly informed by conscious or unconscious philosophy.

Environmental economics, with its conception of nature as a commodity, sees the privatisation of nature as the route along which human society will come to properly value its natural resources and environment. Environmental reformism seeks environmental protection within the existing political and economic status quo and does not question free market capitalism as the framework that determines our social relations, our relation to our natural environment, and our very conception of nature. Deep ecology appeals to individuals to change their attitudes and lifestyle in accordance with the values that it projects onto nature, but does not really challenge the social and economic relations that determine people's lifestyles and attitudes towards their environment. This thesis argues that far from being a distraction from the real task, a self-critical analysis of environmental is essential.[v] In the words of Cronon:

> At a time when threats to the environment have never been greater, it may be tempting to believe that people need to be mounting the barricades rather than asking abstract questions about the human place in nature. Yet without confronting such questions, it will be hard to know which barricades to mount, and harder still to persuade large numbers of people to mount them with us. To protect the nature that is all around us, we must think long and hard about the nature we carry inside our heads (Cronon, 1995: 22).

Where specifically does this thesis take this critique? In arguing that our ideas of nature are social and cultural constructions, my aim is not to advocate the extreme postmodernist argument that the only truth we can know is that which is in our heads and that our discourses bear no relation to real processes in the natural world (Dickens, 1996: 71). Whatever language and concepts we may choose to use, there is an objective world with which we engage. The distinction that we make conceptually between a pet dog and a poisonous snake has a real meaning for our behaviour and has a real impact on our lives and on the animals concerned.

What is important to explore is the changing, approximating, dialectical relation between our subjective appreciation and experience of the world and objective reality itself [vi]. A crucial component of the process of developing our knowledge of the world around us is that we recognise our subjective involvement. As Capra argues, "what we observe is not nature itself, but nature exposed to our method of questioning" (Capra, 1996: 40). We cannot assume that our perception and interpretation of the world gives us untainted facts. Only by recognising and celebrating the human values that are integral to our knowledge and behaviour can we develop the self-criticism that is essential to action in the world that is not simply informed by blind ideology (Soper, 1981: 26).

Once we accept that our conception of nature and our relation to it is as much cultural as it is shaped by what nature objectively offers, then we can more honestly contest politically and socially for the kind of nature that we want and the kind of relationship we

want human society to have with its natural environment. Such a struggle is not possible as long as we invoke nature as some natural moral authority or as a set of uncomplicated facts (Cronon, 1995: 52). And it is only through that human struggle that we can hope to give an environmentally sound meaning to our ability to stand apart from nature and impact on it so dramatically. This requires that we develop a vision that is as much about human aspirations, needs, and values, as it about advancing our understanding of the possibilities and constraints that nature offers us (Cronon, 1995: 21). My critique of the alienation expressed by Western dualistic philosophy is premised on the need to develop an environmental ethic that moves away from the strict choice between an anthropocentric (human-centred) and ecocentric (nature-centred) ethics, and that seeks instead to dynamically embrace both progressive human values and ecological wisdom.[vii]

This thesis makes use of a Marxist perspective in offering a critique of technocentric environmentalism and deep ecology. Chapter 1 is devoted to outlining the main features of Marxist work within the field of ecology and environmentalism and to establishing the epistemological principles of a Marxist perspective. Chapter 2 argues for the significance of Marx's dialectical materialism in the study of ecology and explores in some detail Marx's arguments regarding humans in relation to nature. My particular emphasis here is on Marx's concept of alienation as the condition that has given rise to our contemporary estrangement from nature.

It is the philosophical perspectives that arise out of this condition of human alienation from nature and how they are expressed through technocentric and ecocentric

environmentalism that I critique in Chapters 3 and 4. Without negating the positive contributions that both environmental reformism and deep ecology have made to the protection of our natural environment and to our understanding of ecological processes, my intention in these chapters is to encourage environmentalists to critically question the naturalness of their conceptions of nature and the environmental politics that flow from those conceptions.

Chapter 5 explores the perspective of environmental justice that is rooted in the struggles of the impoverished and oppressed majority of humankind for access to natural resources and for improved conditions to their immediate environment. It is a perspective that integrates environmental issues with economic, political, and social justice struggles, and thereby, contrary to dominant dualistic Western environmental thinking, approaches nature as a humanised space and experience rather than as a commodity or a dehumanised pristine wilderness. Chapter 6 offers a case study of the emergence of an environmental justice movement in South Africa in order to highlight the challenge that these grassroots environmental struggles present to mainstream environmentalism.

In Chapter 7 I return to the broad theoretical propositions regarding human-nature relations offered by Marx's dialectical materialism in order to connect them to the potential offered by an environmental justice perspective.

Notes to Introduction:

---

[i] In this thesis I use the term 'environmental movement' (and, alternatively, 'environmentalism') to refer to the wide range of organised activities that have developed internationally over the last half century in response to the negative impact of human activities on our natural environment. While the term 'green movement' is often used (Pepper, 1993) to refer to the dominant North American and Western European tradition within environmentalism, it is important that the emergence of an 'environmentalism of the poor' (Guha and Martinez-Alier, 1996) in underdeveloped countries, and the 'environmental justice movement' in working class communities (De Chiro, 1995) are recognised as significant new thrusts of social and environmental struggle.

[ii] O'Riordan (in Pepper, 1993: 34), identifies two broad traditions within environmental politics. Technocentric environmentalism embraces 'interventionists' who believe that nature is best manipulated by science, technology, and market forces, as well as 'accommodationists' (reformists) such as environmental scientists, liberal politicians, reformist trade unions, and enlightened business. The accommodationists believe in the adaptability and reform of the existing political, economic, and social status quo, and look to regulation, accountable management, and impact assessment as the means to protect the environment. Ecocentric perspectives include the politics of the radical greens, anarchists, deep ecologists, ecosocialists, and ecofeminists. Central to their philosophy and politics is a belief in the rights of nature and the need for a co-evolution of humans and nature. While their politics is radical, it is often vague and it embraces principles of decentralisation, self-reliance, locality, appropriate technology, and small-scale economic activity. The emergent traditions of 'environmentalism of the poor' and 'environmental justice' cannot be neatly fitted into either of these two approaches although they may carry within them influences of either technocentrism or ecocentrism.

[iii] An elaboration of Marxist philosophy and of Marx's writings on the relation between humans and nature is presented in Chapter 2.

[iv] I am using alienation in two senses here. Firstly, I use it to refer to a general condition of separation, estrangement, and detachment. Secondly, I use it in the more specific Marxist sense of a condition which arises out of that estrangement where we reify a socially created object (such as money, or the market, or our idea of nature) by imagining that it has a power of its own over us. Alienation in both senses, is a condition of dehumanisation and disempowerment.

[v] Callicot and Ames (1989: 1-2) argue that environmental philosophy must not be used as a branch of applied ethics which simply seeks to apply traditional philosophical categories to environmental problems. Instead, its purpose should be to critically explore

alternative moral and philosophical principles. This, they argue, is necessary precisely because of the role that traditional Western philosophy has played in creating our ecological crisis.

[vi] A discussion of the relation between human knowledge and objective reality is taken further in Chapter 1.

[vii] Following Proctor (1995: 281) I understand ethics to mean values and morals that are intended to provide a guide to behaviour and action.

CHAPTER 1

MAKING USE OF A MARXIST PERSPECTIVE – MARXISM, ENVIRONMENTALISM, AND EPISTEMOLOGY

Before outlining Marx's philosophical perspective on the relations between humans and nature (Chapter 2) and offering a critique of mainstream environmental philosophy (Chapters 3 and 4), it is important to give some consideration to the Marxist tradition in environmental thinking, and to explore some of the epistemological principles of this tradition.

1.1 THE MARXIST TRADITION IN ENVIRONMENTALISM

One of the biggest obstacles to our holistic conceptualisation of the ecological problems facing the world is the legacy of division between the social and natural sciences, corresponding, as this does, to the long-standing duality established in Western culture, religion, and philosophy between human society and the rest of nature. Our alienated and instrumentalist view of nature has been functional to and reinforced by the utilitarian needs of capitalist economic development (Benton, 1991; Dickens, 1992; Soper, 1979).

Attempts by either natural science or social science to append the concerns of the other to its epistemological framework, results either in biological reductionism or ecological idealism on the part of the natural sciences (Levins and Lewontin, 1985: 135)[i], or in a simple addition of 'the environment' to a list of pressing issues by social scientists. In contrast, the contribution of classical Marxism to a holistic conception of human-nature relations is perhaps unparalleled in modern Western philosophy.[ii] Marx and Engels developed a theoretical perspective in which the complex and contradictory unity

between humans and nature was established as the foundation for understanding the changing historical nature of this relationship (Dickens, 1992: 81).

Aside from the contribution made by Marx's early writings to a general philosophical understanding of the relation between humans and nature, Marx and Engels offered a critique of "capitalist pollution and the ruination of nature." This critique dealt with such issues as society's failure to make productive use of waste products, the negative impact of commercial agriculture on soil fertility, the ecologically destructive effects of deforestation, the harm caused by industrial pollution to workers' health, and the tendency of capitalism to ignore its harmful impact on nature (Parsons, 1977: 169-206).

The insight that Marx and Engels developed into the dynamic relation between social and ecological processes has not often been drawn upon by environmental and ecological disciplines (Benton, 1979).[iii] It is also unlikely that many environmental managers or planners in the West are even aware of the revolutionary attempts to integrate ecological principles and practice into economic planning in the early Soviet Union.[iv]

The first and possibly major contemporary resistance to exploring Marx's contribution to environmental thinking arises out of the common equation of Marxism with Stalinist socialism (Burbach, 1996: 36; Soper, 1996: 82). The severe damage inflicted on the natural environment by the Stalinist states of the Soviet Union and Eastern Europe seems to provide obvious testimony of Marxism's alleged indifference towards nature. It is beyond the scope of this thesis to undertake any detailed defence of Marxism against a

casual equation with Stalinism, but it is necessary to assert and explore the difference between Marx's dialectical materialism[v] as a dynamic guiding science and self-critical practice on the one hand, and the Stalinist use of Marxism as a dogmatic ideology on the other (Peet, 1992: 126). I discuss the epistemological differences between Marx's dialectical materialism and Stalin's positivism in the next section of this chapter.

The second important resistance to making use of Marx's thinking on environmental issues is drawn from the charge that Marxism has never taken the relationship between human society and nature seriously and that Marx advocated limitless economic growth, with an unerring faith in technological progress and with little concern for the environment (Redclift, 1987). Marxism, it is argued, has always given priority to the development of the forces of production as the single measure of social progress (Soper, 1996: 84).

While it is certainly true that much of the Marxist tradition has taken hold of aspects of Marx's work to promote an unswerving productivism with little regard for the impact of economic development on ecological processes, and this is particularly true of Stalinist dogmatism, this draws undialectically and uncritically on particular aspects of Marx's theory. Marx's work reflects his own development within changing historical circumstances as well as a rich ambiguity that forms a characteristic feature of his formulation and application of dialectical materialism.

While Marx's early writing was largely philosophical and devoted much sensitive attention to the relation between humans and nature, his later emphasis on a critique of capitalist political economy saw him shift into a more focused concern with social and economic development and with contemporary political issues (Dickens, 1992: 62). Marx's strong dispute with the Malthusian arguments about limits-to-nature was largely due to his opposition to the conservative politics that scarcity and overpopulation theories embraced in their disregard for the inequalities in consumption and distribution in capitalist society (Harvey, 1996: 146). Similarly, Marx's celebration of capitalist economic growth and technological advance must be understood in its historical context, and it needs to be set against the critical insight that he and Engels developed regarding the negative ecological impact of capitalist development and the limits that nature imposes on human economic development (Parsons, 1977).

There is little to be gained by simply trying to defend or challenge what Marx said or didn't say at one time or another. Soper argues that the value and creativity of Marx's writings lie precisely in the epistemological tension created by coexisting and seemingly contradictory discourses in Marx's work (Soper, 1981: 35). To seek consistency and lack of contradiction in his writing is to move outside of the richness of his dialectical method. In constructing contradictions, such as in his simultaneous celebration of capitalist development and his condemnation of it, Marx embraced the complementary and conflicting aspects of a phenomenon or process (Soper, 1981: 213-4).

Marx's work can be interpreted in an ecologically friendly way or in a technocratic way. It is up to us to give it the definition we want and to make use of it as we see fit in our contemporary circumstances (Soper 1996: 81). In advocating the value of dialectical materialism and Marxist philosophy for environmental science and ecology, it is unimportant to defend or justify the environmental track record of the Stalinist states. It would be more valuable in this regard to make use of Marx's analytic tools to critically understand and challenge that experience. It was in this way that Russian Bolsheviks in the 1920's developed a Marxist critique of Stalinism that has not been equalled in the subsequent eighty years. [vi] The case that I put forward for Marxism in this thesis is a case for Marx's method of dialectical materialism and is not concerned to defend the Stalinist political ideologies and practices that have emerged historically in the name of Marxism (Foster, 1999: 39).

In spite of the resistance to making use of Marxist analysis in environmental and ecological theory, there has been a rich development and debate amongst Marxist and neo-Marxist writers on ecology and environmental issues ever since Enzenberger's Marxist political critique of the emerging environmental movement in the 1970's (Enzenberger, 1974) [vii]. According to Benton, these developments within Marxist environmentalism have followed four main avenues: attempts to develop a Marxist or socialist normative framework in environmental philosophy; attempts to revise Marxist theory and concepts so as to provide explanations for capitalism's creation of ecological crises; an elaboration or redefinition of the socialist vision in order to include ecological dimensions; and developments around questions of agency, policy, and strategy within

socialist organisations (Benton, 1996: 104). It is with the first of these areas – the contribution that Marxism can make to environmental philosophy – that this thesis is concerned. In this regard, I now outline two of the main issues within contemporary Marxist and post-Marxist environmental and ecological debate. I return to these issues at various points in this thesis.

Firstly, within contemporary Marxist writings on ecology and environmentalism there is not just one interpretation of Marx's perspective on the relation of human society to nature. Much of this has to do with the fact that it is possible to read Marx differently, as we have already discussed. Regarding Marx's concern for nature, Marxists and neo-Marxists point to a shift from his early humanist philosophical works, where he paid considerable attention to human-nature relations, to his later economic works, with their emphasis on social relations of production and a general celebration of economic progress. Marx's argument that humans are "part-of-nature", is for Marxist-naturalists (those with more ecocentric leanings) the correct reading of Marx, whereas Marxist-humanists prefer his simultaneous assertion that humans are "apart-from-nature". Marxist environmentalists have attempted to explore this paradox in different ways, seeking to creatively develop an application of Marxist theory and method to our contemporary ecological challenges. This exploration is one of the central issues in contemporary attempts to develop a Marxist environmental philosophy.[viii]

A second important area in Marxist philosophical and theoretical development is the engagement with post-modernist and post-structuralist critiques of Marxism's totalising

narrative, its claims to truth, and its alleged economic determinism, or reductionism. The valuable contribution that post-structuralists have made, with their emphasis on locality and difference in lived experience, does not, I argue, contradict the need for a universal narrative of struggle such as that offered by Marxism. My argument for such a collective vision, which I develop in Chapter 5, is not based on any totalising ideology that seeks to undermine differential experience, but emerges out of a recognition that differential experience is embraced within a universal reality of inequality, oppression, and human and environmental degradation – the reality of the much celebrated globalisation of capitalism. Regarding challenges to Marxist claims to the truth and to its alleged economic reductionism, it is important to explore some of these epistemological issues immediately since they form part of the philosophical foundation of much of what is argued in the ensuing chapters.

1.2 REALITY, KNOWLEDGE, AND ESSENTIALISM IN MARXIST EPISTEMOLOGY

Given that the focus of this thesis is a critique of philosophical constructions of 'nature', it is important to give some general consideration to the relation between knowledge and reality, and in particular to outline the main features of Marxist epistemology. In this regard I wish to explore two issues, particularly in the light of post-modernist and post-structuralist critiques of Marxism. The first relates to the Marxist epistemological claim that we can know the truth of the objective world (Castree, 1995: 31). The second is Marxism's claim that there are essential principles, laws, tendencies, processes, or structures that determine the framework of human existence, both physical and social. This essentialism is criticised as being reductionist or deterministic (Peet, 1992: 121).

Marxism, knowledge, and reality

Traditional Western scientific and philosophical thought, which provides the framework for mainstream environmental discourse, is a form of unqualified realism. Positivism, rationalism, and empiricism are essentially uncritical of the process of knowledge construction since they see our representations of reality as an uncomplicated reflection of the truth. The facts speak for themselves and our theoretical categories simply mimic the external world (Castree, 1995: 14).

In contrast, Marxism and critical realism argue that theoretical knowledge is actively produced within a specific historical and cultural context (Castree, 1995). Knowledge is always constructed subjectively so that the representations that we abstract through our capacities, values, language, and interests are always relative approximations of objective reality. Drawing on neurobiological research, Hayles argues that knowledge is produced "at the cusp between the beholder and the world" with that world being an "unmediated flux" prior to our perception and interpretation of it (Hayles, 1995: 413). She explains that this conceptualisation

> acknowledges that every observation is contingent on the observer, but also recognises that the unmediated flux plays an active role in informing and guiding perception. Reality originates at the interface where an organism capable of perception... encounters the unmediated flux. Worlds come into being as a result of this interactivity. Not the observer alone, and not the unmediated flux alone, but the two together in dynamic interaction (Hayles, 1995: 418).

Whenever we talk about nature we must recognise that we are referring simultaneously to an ontological reality and to an epistemological construction and that the relationship

between this reality and our knowledge of it is not neutral and uncomplicated (Castree, 1995: 15).

In contrast to Marxism and critical realism, post-modern deconstructionism argues that we cannot know any objective reality and that truth is entirely relative to a particular context or experience. Knowledge is purely subjective, made up of a set of signs, texts, and images and cannot claim to represent any reality beyond its own experience (Stabile, 1995: 91; Quigley, 1992). Truth then cannot be derived from any epistemological correspondence to reality but is "what comes to be believed in the course of free and open encounters" between different experiences and knowledges (Rorty, quoted in Peet, 1992: 114).[ix]

Marx's epistemological method - that of dialectical materialism - seeks to embrace the tension between human subjectivity and the objective world and between the truth and relativity of human knowledge. While there are arguments within the Marxist tradition that dialectical materialism is a simple statement about the nature of reality (Harvey, 1996: 48), two important qualifications need to be made to this. The first is that dialectics recognises the elusive nature of reality - its complexity, fluidity, and impermanence - so that any attempt to capture the objective world in thought is going to require abstractions and distinctions which will always compromise the complexity of reality (Soper, 1979: 62). The second is Marxism's recognition that our perception and interpretation of the world is itself a changing phenomenon, dialectically shaped by our experience. So while Marxism can assert that its dialectical materialism seeks to reveal the dialectic inherent in

the world, its actual arguments must always be understood as approximations of reality. This tension between representation and reality is not static. Following Marx's conceptualisation of philosophy and theory as a constantly changing approximation of objective truth, Lenin argued:

> In the theory of knowledge, as in every other sphere of science, we must think dialectically, that is, we must not regard our knowledge as ready-made and unalterable, but must determine how knowledge emerges from ignorance, how incomplete knowledge becomes more complete and more exact (Lenin, 1977: 240).

It is this historical perspective on the relativity of the truth of human knowledge that really distinguishes dialectical materialism from the relativity of post-modernism. As Lenin explained,

> dialectics is not reducible to relativism, it recognises the relativity of all our knowledge, not in the sense of denying objective truth, but in the sense that the limits of approximation of our knowledge to this truth are historically conditional (Lenin, 1977: 273).

A further dimension to dialectical materialist epistemology is its recognition that humans, in their interaction with the material world around them, are active subjects in the creation of their knowledge. This is important in two senses. Firstly, it allows Marxism (as with critical realism) to be self-critical and reflexive about its process of knowledge construction and about the impact that its representations have in the world (Castree, 1995: 37-39). Secondly, it allows Marxism to embrace an evaluative discourse within its pursuit of truth. Inasmuch as Marx's theories about human society arise out of a scientific analysis of history, they are at the same time charged with normative arguments about what is possible and desirable in the world. Positivism rejects this contamination of science with values, claiming instead that the facts speak for themselves (Callicot, 1989:

51; Soper, 1981: 26). But what happens under the cover of this denial of subjectivity is that values get disguised and presented as facts. Western science and philosophy, as well as Stalin's inflexible iron laws of history, serve as ideologies for defending a status quo rather than inviting critical reflection as the basis for understanding and seeking transformation.

Marxist essentialism

As a materialist science, Marxism starts with the proposition that matter, or the objective existence of "things in themselves", is primary over all sensation and consciousness that arises by virtue of that existence (Lenin, 1977: 186). Humans are first of all part-of-nature, an objective reality that forms the permanent ground and framework for all human activity (Soper, 1996: 270). It is on the basis of this material existence (humans as part-of-nature) that all human sensation, thought, spirituality, and social and cultural activity (humans as apart-from-nature) becomes possible. It is out of necessity that human society organises a social labour process in order to ensure its own reproduction (Peet and Watts, 1996: 260). How humans organise production strongly influences how they relate to one another socially and how they relate to nature (Pepper, 1993: 67). This material determination, argues Marxism, is essential. It is a leading and determining principle necessary for the existence of human society. It is the framework in which the rich complexity of human social life is carried out (Peet, 1992: 120).

Post-structuralist critiques of Marxist essentialism are directed at three connected issues. Firstly, it is argued that Marxism is reductionist in that it presumes that the complexity of

human social existence can be analysed to reveal a single, in this case, economic determination (Foster, 1999: 40; Resnick and Wolff 1992: 131). Secondly, it is argued that Marxism's economic reductionism is expressed in its "totalising" category of class - an allegedly narrow economic identity that denies the validity of a range of other political, social, cultural, geographical, and religious identities that are prominent in people's experiences (Graham, 1992: 151). Thirdly, this alleged rigid determinism of Marxism is regarded as teleological insofar as it suggests that human history is governed by some grand design dictated by economic development (Peet 1992: 120).

There are four important points to make regarding Marxism's alleged economic determinism and reduction of all identity to that of the economic category of class,. Firstly, essentialism is not the same as a simple determinism or reductionism. Secondly, to argue for a basic framework of determination by what is essential is not to deny that any development can be shaped by other factors. Thirdly, the Marxist category of the 'economic' cannot be interpreted simply in technical terms, but must be seen as embracing the rich complexity of all social relations and processes that ensure material production and social reproduction. Lastly, while the category of class arises in relations of production, it is not a narrow economic identity that has to compete with other non-economic identities. In what follows I address these four post-structuralist critiques of Marxism's essentialism.

Essentialism and simplistic determination are not the same thing. Essentialism posits at a deep level of abstraction what is necessary for the existence or constitution of a thing or a

process. Marxism argues that physical and material production and reproduction is the necessary framework for human social existence. This is not to argue that the economic activity happens first and then everything else follows, or that every event and process in human development and history is therefore determined by economic factors. Through his emphasis on dialectical relations between things and processes and through the weight that he gave to political, cultural, and ideological factors in shaping the course of history, Marx developed an analytical framework that was decidedly not reductionist (Foster, 1999: 40). What is determining at an essential structural level (the material necessity of production) does not deny or negate what can shape events at a more concrete experiential level (such as religious conflict or political struggle) (Peet, 1992: 122).

Peet argues that there is nothing necessarily reductionist in a quest for the essential because "essential aspects and structures are not the terminal points of theorising, but are indeed the 'entry points' to the multiple dimensions of reality" (Peet, 1992: 120). He goes on to elaborate:

> ... social processes have similarities ... similar processes recur in time and space, and ... such recurrences are not accidental but the result of human beings carrying out activities essential for the reproduction of their existence... Classical Marxism accords these reproductive structures a privileged position in life – that is, they make life possible...While events have unique aspects, they are also parts of these ongoing processes of the reproduction of existence and are determined by their place in the structures formed by the reproductive relations and practices. An event happens in part because of necessity (reproduction) and in part because of circumstance (conditions peculiar to the event); Marxist theory explores the dialectical relations between reproductive necessity and freedom of action (Peet, 1992: 122).

The economic does not need to be narrowly and technically defined. It refers to broad social processes related to how humans engage with nature in order to reproduce

themselves. This involves all kinds of complex social relations that do not neatly allow for a strict delineation between what is economic, political, social, cultural, or religious (Peet, 1992: 123). These abstractions are only useful if we are able to appreciate the rich dialectical relations and processes that constitute lived experience.

In the same way it is not useful to distinguish class so categorically from experiences such as gender, culture, and locality, when it is precisely all those diverse and often conflicting experienced identities that make up the actual content of being in one class or another. While the concept of class is derived from relations of production and is therefore essential, it is neither a strictly economic category (since to identify anything as strictly economic is to abstract it from a complex reality), nor is it simplistic or reductionist in how class relations shape people's experiences (Stabile, 1995: 100). For example, the fact that a working class woman might also be black, a single mother, and Muslim, does not conflict with her class identity; rather it gives it specific content and meaning.[x] Marxism certainly seeks out commonality and universals but it also embraces the richness of uniqueness and variation.

While Marxism does identify essential features in the human experience (such as the necessity for social reproduction) and emphasises specific historical tendencies (such as the tendency of capitalism to create its own crises), this does not necessarily imply that human history has any preordained course. The weight that Marx gave to the variable fortunes of class struggle as a shaper of history negates any suggestion of a deterministic teleological view of history (Peet, 1992: 124). While Stalinist positivism gave rise to

dogmatic iron laws of history, Marx's dialectical materialism offers an analytical framework "in which a number of dynamic tendencies in shifting hierarchical arrangements are constantly disturbed and dislocated by new sequences of different events, a dynamic which has pattern, order, and determination without being teleological" (Peet and Watts, 1996: 38).

While much of the epistemological engagement of post-structuralism with Marxism offers rich content to the framework of dialectical materialism, the sweeping dismissal of Marxism as reductionist, deterministic, and teleological is crude and simplistic. Positivist Marxism, best expressed by Stalinism, is indeed guilty of mechanically dividing the world into cause and effect, of setting up a strict base-superstructure determinism, and of confining analysis to the economic causes of events (Foster, 1999: 40; Peet, 1992: 116). But to bury the richness of dialectical materialism in the same coffin as Stalin is hardly a credit to post-structuralism's sensitivity to difference and variation. To dismiss Marxism as determinism and to equate dialectical materialism with Stalinist positivism is itself reductionist (Peet, 1992: 122).

Marx's dialectical materialism should not be equated with the inflexible dogmatism of Stalinism. The capacity of dialectical materialism as a self-critical and reflexive epistemology to approximate the flux of objective reality gives it a particularly dynamic quality in two senses. Firstly, dialectical materialism is able to abstract and conceptualise from life-processes without negating the rich complexity, contradiction, and dynamism of those processes. Secondly, in appreciating the historical relativity of human knowledge and the role of human values and subjectivity in our perception and interpretation of the

world, Marxism recognises that the workings of human consciousness are not separate from the changing life-processes that we observe and analyse. Our ability to stand separate from nature is itself a natural act and subject to the same kinds of dynamic processes of change and development.

In the following chapter I argue that Marx's dialectical materialism is profoundly useful for the study of ecological processes and relationships and in particular for our understanding of the changing relations between human society and its natural environment. Marx's analysis of humans in nature offers a contradictory unity which traditional Western philosophy cannot easily embrace. Marx suggested that essentially, metaphysically, and ecologically, humans are both part-of-nature and apart-from-nature. Historically this dynamic tension takes different forms, so that in contemporary capitalist society we have become alienated materially and spiritually from the nature on which we depend. This estrangement expresses itself in all human activities, and as I argue in Chapter 3 and 4, even finds expression in contemporary environmentalist philosophy – i.e. in the very efforts of humans to challenge and overcome their alienation from nature.

Notes to Chapter 1:

---

[i] I will elaborate on biological reductionism in Chapter 2 and on ecological idealism in Chapter 4.

[ii] This is in contrast to much of Eastern wisdom which emphasises the unity of humans and nature (Barret, 1996; Callicot and Ames, 1989; Watts, 1996).

[iii] Even the progressive ecological theorist, Capra makes no positive reference to the Marxist tradition in his exposition of "living systems theory" in his book the *Web of Life* (1996).

[iv] Environmentalists in the early Soviet Union argued for the need to incorporate ecological principles into economic plans. As the First All-Russian Congress for the Conservation of Nature resolved in 1929: "The economic activity of man is always one form or another of the exploitation of natural resources... The distinction and tempo of economic growth can be correctly determined only after the detailed study of the environment and the evaluation of its production capacities with the aim of its conservation, development and enrichment. This is what conservation is all about" (quoted in Gare, 1995: 82).

[v] In the 1840's Marx developed the epistemological method and philosophical perspective of dialectical materialism through his study and critique of Hegel's dialectics and the materialism of Feuerbach. Briefly put, this perspective claims that living matter and physical material existence is primary to sensations, thought, and consciousness (materialism), and that complexity, contradiction, relationship, and change are essential to all life processes and lie at the basis of all things that we might experience as discrete entities (dialectics). A fuller exposition of dialectical materialism is given later in this chapter and in Chapter 2.

[vi] I refer here mainly to the work of the Left Opposition, led by Leon Trotsky, who undertook Marxist critiques of the growth of Stalinism in the Soviet Union.

[vii] The main Marxist and Post-Marxist works consulted here include those by Benton, 1979, 1989, 1991, 1992, 1993, 1996; Castree, 1995; Dickens, 1992, 1996; Foster, 1995a, 1995b, 1998, 1999; Gare, 1993a, 1993b, 1993c, 1994, 1995; Grundmann, 1991a, 1991b; Harvey, 1989, 1992, 1996, 1998; Levins and Lewontin, 1985; O'Connor, 1997; Parsons, 1977; Peet, 1992; Peet and Watts, 1996; Pepper, 1993; Schmidt, 1971; Soper, 1979, 1981, 1995, 1996; Vogel, 1988; and Watts, 1996.

[viii] See especially in the debate between Benton (1989, 1992, 1993) and Grundmann (1991a).

[ix] What is summarised here certainly does not do justice to the variation within post-modernist and post-structuralist deconstructionist arguments about epistemology. There are extremely valuable arguments for privileged discourses and for the significance of experiential knowledge that Marxism certainly needs to draw from. The richness of this post-modernist contribution will be explored in Chapter 5 of this thesis.

[x] I return to the issue of experienced identities in Chapter 5.

CHAPTER 2

MARX ON THE RELATION BETWEEN HUMANS AND NATURE

2.1 INTRODUCTION

This chapter presents a Marxist perspective on the essential relation between human society and nature and an understanding that this relation has taken different forms historically[i]. Essentially, Marx argued, the relation between humans and nature embraces a contradictory unity. While humans are integral to nature and dependent on it, they have at the same time an unusual independence (compared to other animal species) from their natural environment (Parsons, 1977: 135).

This independence lies in the capacity of humans to stand separately from nature and to transform it to meet their socially defined needs. Human society has the ability to give a human shape and meaning to nature, albeit through a dynamic engagement with the objective constraints offered by natural processes (O'Connor, 1997: 52). Under the specific conditions of contemporary capitalism (and the same can be said of the recent experience of Stalinist socialism), this human capacity to shape our relation to nature has expressed itself through estrangement, utilitarianism, and extreme abuse, often consciously pushing beyond the limits of what is required to sustain life on earth.

Marxism argues that this alienated behaviour is not an inevitable expression of human nature but rather a specific historical form that humans have given to their relation with

nature – a form which human society can change (Parsons, 1977: 17). It is the same capacity of human society to self-consciously construct its relation to its environment which, in contrast to our present abuse, dialectically suggests possible new worlds that lie outside of our present experience (Harvey, 1996: 56). In the Marxist vision, there is the potential for human society to master its relationship with nature in an ecologically sound manner. This potential can only be realised through firstly, a dramatic reorganisation of our social relations, politically and economically, and consequently, the development of new ways of relating to nature materially and spiritually (Benton, 1993: 29; Dickens, 1992: 69).

2.2 MARXIST DIALECTICS AND ECOLOGY

The science of ecology, broadly understood to concern itself with the relations between living organisms (including humans) and their environments (Grundmann, 1991b), was first conceptualised by Ernst Haeckel in 1869 (Parsons, 1977: x). Some twenty years earlier, Marx formulated his materialist conception of history, in which he presented in broad sweep a profoundly ecological conception of the relation of human society to nature.[ii] A central feature of Marx's developing epistemology was his attempt to reflect the complexity, interconnections, dynamic movement, and historical change that is essential to all life-processes. This kind of approach, generally referred to as a "relational paradigm", is common to dialectics[iii], process philosophy (Gare, 1995), and living systems theory (Capra, 1996).[iv]

Benton argues that one of Marx's greatest contributions was his philosophical challenge to the mechanistic materialism that has long dominated Western science (Benton, 1979: 124). Western science's Cartesian philosophical perspective, out of which empiricism, positivism, and reductionism arose, is an expression of human alienation from nature,

> in which parts are separated from wholes and reified as things in themselves, causes separated from effects, subjects separated from objects...(an) alienated world view (that) captures a particularly impoverished shadow of the actual relations among phenomena in the world (Levins and Lewontin, 1985: 269-71).

In contrast to this mechanical view of the world it is useful to outline the main propositions of Marxist dialectics. Although these are presented here as abstract principles, their application to an exploration of the relations between human society and nature is the substance of this thesis. The following is drawn with considerable reworking from Harvey (1996: 48-57) and Levins and Lewontin (1985: 272-85):

- While our first experience of a plant is likely to be the thing itself, its existence as a dynamic form of life can only be grasped through an appreciation of its relation to the sun, earth, and water. Dialectical thinking gives ontological preference to processes and relations over things and elements, even if epistemologically we arrive at the former via our apprehension of the latter.

- Any particular form of nature, be it plant or animal, needs to be understood in relation to the ecological system of which it forms a part. Likewise, an ecological system only exists by virtue of the interrelated forms of life that constitute it. Parts and wholes are mutually constitutive – each is essential to the definition, maintenance, and transformation of the other. The one cannot exist without the other. In Taoist philosophy this relationship is conceptualised as "mutual arising" (Watts, 1975: 43). The qualities of each can only be understood by looking at the processes through

which they relate to one another. In any context, parts and wholes have relative boundaries.

- All living organisms experience the cycle of birth, transformation, and death. Their form of existence at any point in time is transitory. Elements or things emerge out of processes and relations within structured systems or wholes. Without denying relative permanence, dialectics emphasises matter as a product of motion and flux. Objects, things, and elements are constituted, sustained, transformed, and destroyed by the processes that define them.

- While the lifespan and manifestation of a butterfly might be dramatically different to that of a mountain range, all living processes contain space and time as aspects of themselves that define their specific scales for development.

- Living things and systems contain internal processes and characteristics which simultaneously support and undermine their unity. An acorn contains the capacity to become an oak tree, and the tree contains its own potential for growth, death, and decay. It is these internal contradictions, all the time influenced by external forces, that define the impermanence and instability of all living systems.

- While life systems and processes might appear to be stable in the short term, a longer view of ecological processes reveals dynamic and often radical transformations. Order, balance, and stability are special situations, rather than the norm, and need to be accounted for. Systems of complexity tend to be dynamically unstable.

- Transformative behaviour, or creativity, arises out of internal contradiction, making development and change an essential feature of life. In the process of change, subject and object, as well as cause and effect, can change places, so that the organism affects the environment and the environment shapes the organism.

- This emphasis on the potential for transformation that arises out of instability, projects the concern of dialectical thought beyond just an analysis of what exists, in order to ask: Where is this process going and what is possible?

There is a striking similarity between the propositions of dialectics and those of contemporary ecological thought, even though the latter has developed out of an entirely different scientific and philosophical tradition. In his book *The Web of Life*, Capra traces the development of contemporary ecological thought as the basis for "a new language for understanding the complex, highly integrative systems of life...(which)...may be seen as the scientific forefront of the change of paradigms from a mechanistic to an ecological worldview" (Capra, 1996: x). With a more specific interpretation of the relation between the science of dialectics and that of ecology, Parsons argues:

> Ecology as a specific science of ecosystems displays the principles of the general science of nature, or dialectics. For dialectics as a science of systems generally is concerned with the interactions of two or more living or nonliving systems with one another and with their environment. Ecology is the application of dialectics to living systems, and dialectics is the generalisation of the method of ecology from living systems to all systems (Parsons, 1977: 7).

Having presented, in broad outline, the main propositions of dialectics as ecological theory, it is important to point to four specific dialectical themes which are relevant to the analysis of human-nature relations in the rest of this chapter:

- Marxism understands humankind to be part-of-nature in the sense that humans are dependent on nature for their existence (humans as "natural beings"). At the same time Marxism sees the human species as being apart-from-nature by virtue of having an unusual capacity (compared to other species) to stand separately from nature and transform it (humans as "species beings") (Benton, 1993: 23).

- Marxism asserts that nature exists as an objective reality independent of human experience of it. At the same time it recognises that our conceptualisation of nature is all the time an historically determined social and cultural construction (Parsons, 1977: 3; Soper, 1995: 249).

- That humans are both part-of-nature and simultaneously apart-from-nature, is for Marxism an essential relation between humans and nature that exists regardless of historical expression and change in the form of this relationship (Benton, 1989: 589; Geras, 1983: 67).

- Marxism explores and embraces the dialectical and dynamic relation between human society and nature. How human society impacts on nature not only changes the natural environment but in turn transforms humans and their attitude to nature so that they then intervene in nature in new ways. Subject and object, cause and effect are constantly changing places (Harvey, 1996: 26-7; Ollman, 1971: 105; Soper, 1996: 89).

- Like nature, human society is governed by processes of gradual evolution as well as sudden transformation. Such processes of change and development arise out of the interaction of internal political, economic, and social forces. A crucial element within this dynamic of change and development is the capacity of humans to consciously shape the direction that they want social transformation to take. Within the possibilities and constraints offered by our present economic, social, and environmental reality, we have the capacity to decide what kind of society we want, what kind of nature we want, and how we want to relate to our natural environment.

As dialectical themes, each of the above constitutes a tension or contradiction. This is not a contradiction in the sense of an incompatibility, but in the dialectical sense of "a union of two or more internally related processes that are simultaneously supporting and

undermining each other" (Ollman in Harvey, 1996: 52). These themes, while they relate directly to specific sections in the rest of this chapter, are arguments that run through the thesis as a whole.

2.3 HUMANS AS PART-OF-NATURE AND APART-FROM-NATURE

In his outline of the materialist conception of history, Marx sought to locate human society in relation to nature and explored how this relationship changed historically (Geras, 1983: 61). As a materialist, Marx insisted that human beings, with all that is notable about them as a highly conscious species with a distinct social history, are "irredeemably rooted in a given biological condition; absolutely continuous with the rest of the natural world" (Geras, 1983: 97).

In arguing that humans are natural-beings and that "human history is part of natural history" Marx meant two things. Firstly, he recognised that humans, as an evolved biological species, have basic requirements (needs, drives, wants) and powers (capacities and potentials) that are common to all forms of nature (Benton, 1993: 46-7; Ollman, 1971: 81-2). Secondly, like any other living organism, humans require objects outside of themselves, a natural environment, for the satisfaction of their needs and for the realisation of their powers and capacities (Ollman, 1971: 81-2; Schmidt, 1971: 314). Nature, Marx argued, was "indispensible to the manifestation and confirmation of man's (sic) essential powers". This, Marx argued, was not just a physical dependence, since nature also provides "spiritual food" in its stimulation of human perceptions, feelings and

thoughts (Parsons, 1977: 39) In his *Economic and Philosophical Manuscripts*, Marx described this human dependence on nature with profound ecological insight:

> Nature is man's (sic) inorganic body – nature, that is, insofar as it is not itself the human body. Man lives on nature – means that nature is his body, with which he must remain in continuous interchange if he is not to die. That man's physical and spiritual life is linked to nature means that nature is linked to itself, for man is part-of-nature.... the fact that man is a corporeal, living, real, sensuous, objective being and a force of nature, means that he has real, sensuous objects as the object of his being and the expression of his life, or that he can only express his life through real, sensuous objects... a being which does not have its nature outside of itself is not a natural being and does not share in the being of nature (McLellan, 1977: 81, 104)[v]

Although Marx and Engels argued that humans were first of all part-of-nature, they strongly opposed the reductive naturalism of the popular Social Darwinism of the 19th century. Social Darwinism, as well as more contemporary versions of biological reductionism, extrapolates directly from animal behaviour to interpret human nature and human social behaviour. This biological determinism has been used to justify all kinds of racist, nationalist, gender, and sexual oppression, and has claimed that property ownership and capitalist competition are simply the social expressions of an instinctive human nature. For the most part it involves a projection of human social prejudices onto animal behaviour (Benton, 1979: 134-6; Soper, 1995: 60-1).

For Marx and Engels, the assertion that humans are part-of-nature is immediately qualified by an equally strong claim that humans are simultaneously apart-from-nature. This species being of humanity, while it enables human society to set itself apart from the rest of nature, is itself natural, in that the powers of the human species arise out of the fact that humans are natural beings (Ollman, 1971: 110). As Marx wrote in 1844:

> But man (sic) is not merely a natural being; he is a human natural being. That is to say, he is a being for himself. Therefore he is a species being, and has to confirm and manifest himself as such both in his being and in his knowing (quoted in Parsons, 1977: 135).

There are numerous ways in which Marx identified the species characteristics of humans - characteristics such as cognitive capacity, consciousness, language, use of tools, culture, emotions, and purposeful activity - which distinguished humans from other animals and from nature generally. While uniquely human claims to these capacities are today being challenged by ethological and ecological studies, this does not deny the fact of an obvious human distinctiveness (Benton, 1993: 46-50; Capra, 1996: 257-80). The capacity that the human species has for conscious activity, for purposefulness, for planning and regulation, for communication, for transcending necessity, goes far beyond the germ of consciousness that we can find in animals (Geras, 1983: 84)[vi].

It is through their particular species capacities that humans play an unusually determining role in defining their relation to nature. Humans are unique in their ability to utilise and transform nature in ways that push the boundaries of ecological constraints, and in their ability to both design and reflect on those interventions. This separates humans from even the most mindful and conscious non-human species and ecological processes. Whether we want to regard this as a matter of evolutionary degree or as a real qualitative distinction between humans and other animal species is not too important. What is important is that we recognise our capacity to impact consciously and wilfully on nature, and to determine the ecological soundness or destructiveness of that impact.

Within the range of human attributes that are different from the powers of other species, there is a specific capacity that needs to be emphasised. This is the highly developed ability to be self-conscious, ie. the capacity of humans to reflect on what they do, value and critique it, and act again on the basis of that reflection (Soper, 1996: 88). It is on the basis of this ability of "man (sic) to make his life-activity itself the object of his will and of his consciousness" (Marx, quoted in Ollman, 1971: 112), that humans are able to plan and design, to make choice, to transcend necessity, and to transform their natural environment. In this regard Marx and Engels emphasised:

> It is the unique power of men (sic) to think about their world and themselves, to act upon nature and social and political institutions and to change them... for the fulfilment of their own capacities...man is distinguished from the animals by his power to imagine the outcome of his possible action and then to realise his purpose through action (quoted in Parson, 1977: 137).

It is the unity of natural and species characteristics, and indeed the tension and contradiction between them, that provides the basis for defining human nature. Marx argued that the human condition embraces the need and capacity of humans to shape and develop their relation to themselves and at the same time to intervene and mediate in their relation to nature (Geras, 1983: 83). While Marxism insists that human nature is only expressed concretely in specific forms through the process of history, the fact that humans have a history is made possible by their intrinsic constitution, their essential self-conscious human nature (Geras, 1983: 67).

2.4 HUMAN TRANSFORMATION OF NATURE

For Marx, human nature arises out of the unity and tension of humans as natural being and species being. Humankind is essentially and historically defined both by its evolution in nature and by its productive transformation of nature. Labour is the specific human capacity that underlies human relations with nature, because it is through this appropriation and transformation of nature that human society secures its conditions of existence. In doing this, human society makes and remakes itself. As Parsons argues: "Man's (sic) dialectical relations with nature, in which man transforms it and is thereby transformed, is the very essence of his own human nature" (Parsons, 1977: xi).

In order to meet both basic and complex needs humans intervene in nature and appropriate from it. Appropriation can involve perception, orientation, or the physical transformation of the natural environment to satisfy a variety of physical and spiritual needs. It is through the act of appropriation that humans make nature part of themselves. In doing so humans are exercising their power, realising their potential as humans, and the ways in which they do this is determined historically by the level of their interaction with nature and by human social relations (Ollman, 1971: 91-7). How humans appropriated from nature in hunter-gatherer societies, and how they related to one another in the social act of doing so, differs dramatically from human-nature relations and human social relations under contemporary capitalism.

Human material appropriation of nature is a very broad notion, more narrowly expressed as specific forms of mediated activity, most notably work. Work or labour, the conscious

production of use-values, makes use of all human senses and powers. It is the expression of human power in its natural environment, the process of objectifying humanity in nature (Ollman, 1971: 99-105). Work on nature is, according to Marx, the life-activity of the human species, and it is the process through which humanity expresses its unique need and capacity to forever explore new possibilities – to change the world. What human nature demands, and what nature as a whole makes possible, is that human beings, as part-of-nature, appropriate and transform nature (Grundmann, 1991: 284).

It is this essential relation between humans and nature that lies at the basis of Marx's materialist approach to history. It is through this philosophical perspective, as Grundmann explains, that we encounter

> the abstract relation between man and nature, as a transhistorical condition, and then the specific historical forms which this relation assumes...Marx conceives of a transhistorical situation of mankind (sic) in which it always has to transform nature in order to survive. This is a process that takes place within societies and by means of technology. Both societies and technology are in constant development. Marx conceptualises this in a theoretical model which is commonly called historical materialism (Grundmann, 1991: 7-9).

Perhaps one of the strongest, and most valid critiques of Marx's work, relates to his "technological optimism" with regard to the human potential to transform nature. As Benton argues, "Marx under-represents the significance of non-manipulable natural conditions of labour-processes and over-represents the role of human intentional transformative powers vis-à-vis nature" (Benton, 1989: 571). Marx did not pay enough attention either to the physical limitations of natural resources exploited by human society (especially non-renewable resources), nor to the destructive effects of human

intervention on ecological processes. Grundmann however, disagrees with Benton's critique, and, in defending Marx's technological optimism, argues that what is non-manipulable is open to change, and to technological challenge, however undesirable that might be (Grundmann, 1991a).

From an ethical and ecological point of view, as opposed to technological perspective, Benton's criticism is important. While it is necessary to understand Marx's technological optimism in its historical context (ie. in the early days of capitalism when human impact on the natural environment was less obviously destructive), and to sympathise with his rejection of the political conservatism of Malthus's natural limits arguments, it is important to temper human self-confidence with our contemporary understanding of the negative effects that human activity is having on ecological systems. There is no need to shy away from the fact that there are natural limits to how and to what degree humans can transform nature to meet their needs. At the same time, natural limits can still be understood as relative to any historical, geographical, and social context and a fundamental reorganisation of society can shift what those limits are (Benton, 1989: 584). Social equality, production for need and not for profit, and the utilisation of new energy sources can make a vast difference to how we define the possibilities and limits of human transformation of nature.

While our natural environment plays a big role in conditioning and determining how we make use of it, human appropriation from nature always leaves its mark. As human society realises and expresses itself in its action on nature, nature comes to embody

human action upon it. "In each historical period," says Ollman, "we are presented throughout nature with the evidence of what man (sic) wants, what he is capable of, and what satisfies him" (Ollman, 1971: 97). But this process is not just one way. As Marx argued, "the history of nature and the history of men (sic) are mutually conditioned... (because) by acting on the external world and changing it (we) at the same time change our own nature" (quoted in Harvey, 1996: 26). We act on the world as subjects, and in turn become objects affected by our transformations of nature.

How humans relate to nature materially, in their appropriation of it for their variety of needs, shapes then how they perceive their natural environment and relate to one another socially. It is in this sense that production, as human social appropriation of nature, lies at the heart of all the cultural, political, and ideological features of human social relations. And it is through this mutual conditioning and determination that human history takes its course. Put slightly differently by an environmental historian:

> An ecological history begins by assuming a dynamic and changing relationship between environment and culture...it assumes that the two are dialectical. Environment may initially shape the range of choices available to a people at a given moment but then culture reshapes the environment responding to those choices. The reshaped environment presents a new set of possibilities for cultural production, thus setting up a new cycle of mutual determination. Changes in the way people create and recreate their livelihood must be analysed in terms of changes not only in their social relations but in their ecological ones as well (Cronon, quoted in Harvey, 1996: 27)

Marxist theory emphasises that the human species is self-creating through its productive and labouring activity, involving both the humanisation of nature and the naturalisation of human society. Summarising this dialectical approach of Marxism, Soper explains:

> By the technologies whereby we extract and utilise resources for the satisfaction of human requirements, we 'transform' the natural world, and the environment itself thus comes to bear the imprint of our particular patterning of need. At the same time, since we are creatures dependent upon an objective environment for becoming the subjects that we are, we thereby create our own 'nature': we are returned to ourselves, through the objective products of our industry, since these provide the context for all our aesthetic, moral, and cognitive experiences. This in turn implies that such experience must itself be viewed as the outcome of dialectical mediation: or subjective needs and senses acquire their objective existence in the products we create for their satisfaction, and these then condition our subjective sensibility and mould our future needs, aesthetic sense, and so forth (Soper, 1996: 87).

Marx spoke of pristine nature as "first nature", and humanly transformed nature as "second nature" (Grundmann, 1991b: 285). This second, humanised, or socially constructed nature, becomes more and more the nature that humans experience, given the penetration of human settlement and activity into every corner of the globe. Nature, as an objective set of processes independent of our specific interaction with it, can never be comprehended as such, in its pristine condition. As soon as we begin to appropriate nature, even merely through our senses, we do so through the mediation of social and cultural constructs (Schmidt, 1971: 320-1). At different times in history, humans have made sense of nature in very different ways, and this is reflected in a variety of cultural, religious, and ethical forms of expression (Parsons, 1977: 3). Even at a single time and place in history, different classes and genders will perceive their natural world with a variation determined by their material relation to nature and the social process of its appropriation.

Although it is only possible to conceptualise and formulate statements about nature by using our culturally mediated categories, this does not mean that the natural world does not have a real existence outside of our discourse and experience. The very fact that nature operates beyond our understanding of it at any point in time; the very fact that we have for most of human history not anticipated our impact on ecological processes and have little clear idea of the implications of that impact, shows clearly that our construction of nature is not nature itself. As Soper argues, "while it is true that much of what we refer to as 'natural' is a 'cultural construct' in the sense that it has acquired its form as a consequence of human activity, that activity does not 'construct' the powers and processes upon which it is dependent for its operation" (Soper, 1995: 249).

Human cultural and ideological constructions of nature are not arbitrary. They reflect and express the real engagement and interaction that human society, in a particular historical context, has with its natural environment. But these expressions are not just passive reflections; they form part of our self-conscious activity and thus become meaningful in how we relate to ourselves, our fellow humans, our human nature, and to our natural environment.

2.5 HUMAN ALIENATION FROM NATURE UNDER CAPITALISM

Marx's argument that humans express their potential as a species through their collective appropriation of nature is the basis for his characterisation of human nature as well as the starting point for his materialist analysis of human history. Through production, human society not only transforms nature, but in doing so, transforms itself. Transformed nature

bears the imprint of human intervention, and this transformed nature, as human society's expression of itself, reflects itself in human social relations. In this way human society, at different points in history, becomes organised socially, politically, and culturally around its economic appropriation of nature.

The ability of humans to relate to nature in this dynamic way is far greater and more varied than that of other animal species; it is so great in fact that we have the capacity to separate, estrange, or alienate ourselves from the nature on which we depend. And to alienate ourselves from our natural environment is to alienate ourselves from our human nature. Alienation, Marx argued, is the human social condition created by private property ownership, capitalist relations of production, and the purely utilitarian attitude towards nature that those property relations and social relations imply (Benton, 1993: 28; Soper, 1995: 46).

As a species, humans are self-conscious and creative. To develop these capacities they need to be social, to work, and to be in close association with external nature, their "inorganic body" (Dickens, 1996: 57). The development of private ownership of natural resources, and the dispossession that this implies, estranges human beings from their engagement with nature, from their labour power, from what they produce, from their fellow women and men, and from their potential as humans (Benton, 1993: 27). Under these conditions, "human powers operate, but in a distorted fashion..(and).. human potentials, or the possible development of new powers, remain unrealised" (Dickens, 1992: 67).

It is common for contemporary environmentalists, and especially deep ecologists, to claim that humans are alienated from nature. This term is used to describe bleak environments, individualism, lack of meaning and purpose, people's disregard for their natural surroundings, and the arrogant human assumption that nature is just there to be exploited (Soper, 1996: 85). While this use of alienation certainly captures the general spirit of a human society estranged from nature, Marx used the concept in a more specific way (Vogel, 1988: 367-8).

For Marx, alienation is a condition rooted in the process of production, whereby human subjects see themselves as subservient to external objects or processes which they in fact are responsible for creating. The most obvious examples of such fetishised objects are money, commodities, and market forces, which human society comes to regards as natural entities and forces over which it has no control. The human origin of these objects is masked and they become reified as things that have an independent power over human interests, needs, and activities (Soper, 1996: 85-7). It is out of this initial process of estrangement that Marx then characterised alienation as a more general condition whereby people lose a proper understanding of themselves and their relation to the world around them, and thereby lose essential aspects of their well-being (Dickens, 1996: 58).

In his early writings, Marx developed a critique of the historical development of the private ownership of economic property in terms of how this mediation of human interaction with nature comes to estrange or alienate humans from nature, from

themselves, from one another, and from their human capacity (Dickens, 1992: 72). Private property lays the basis for the development of purely instrumental relations between humans and their natural environment and thus begins to erode the spiritual connection that humans have with nature (Benton, 1989: 589). The all-sided appreciation and appropriation of nature that is so essential to human nature becomes subordinated to the desire for possession. As Marx expressed it, "all the physical and intellectual senses have been replaced by the simple estrangement of all these senses – by the sense of having" (quoted in Dickens, 1992: 69). This historical distortion of human nature reaches full expression under capitalism, where private ownership is fetishised into an unquestionable right, if not a law of nature! And it is at this human achievement, in all its perversity, that Engels expressed lucid outrage:

> To make the earth the object of huckstering – the earth which is our one and all, the first condition of our existence – was the last step toward making oneself an object of huckstering. It was and is to this very day an immorality surpassed only by the immorality of self-alienation (quoted in Parsons, 1977: 172).

Marx argued that capitalist private ownership of natural resources, or the means of production, expressed an unprecedented alienation of human society from nature. He regarded

> the mode of perceiving nature, under the rule of private property and money, as a real contempt for, and a practical degradation of nature ...(where) ...for the first time, nature becomes purely an object for humankind, purely a matter of utility...and the theoretical discovery of its autonomous laws appear merely as a ruse so as to subjugate it under human needs, whether as an object of consumption or as a means of production (quoted in Parsons, 1977: 15-8).

Not only does capitalist private ownership of natural resources degrade nature and estrange humans from nature but it also involves, and in fact requires, the direct material

dispossession of the bulk of humanity. The private ownership of natural resources by some implies their right to deny others access to these essential conditions of existence. Private property thereby creates, as the mirror image of itself, alienated 'free' labour that is forced to sell its human capacity to work in order to survive. It is in the process of production that these two distorted versions of humanity - capital and labour - produce and reproduce the basis for humanity's condition of alienation (Olman, 1977: 143).

The alienation of workers in the process of production under capitalism revolves around their dispossession, and thus estrangement, from three essential connections. Firstly, having been forced into wage labour (primarily through such coercive measures as land dispossession and being forced into a cash economy), workers lose control and ownership over their capacity to work, their labour power. The second connection that is lost to the workers is the fact that they have no control over the conditions, means, or instruments of production that they make use of or work with in the process of production (Ollman, 1971: 144).

Finally, workers are estranged from what they produce, from the objects of their creative activity. Since it is through productive activity that humans express their creative power, the products or objects people produce contain a part of themselves and materially express their life activity. But under capitalism workers cannot realise that connection, since what they produce is immediately, at every step, the property of somebody else (Ollman, 1971: 145).

The qualities that humans lose in this process, they then project onto the commodities they produce. These objects take on a magical fetishised quality which serves to stimulate and feed human hunger for fulfilment. Ironically, it is then the market, money, and commodities that bring people together, cement relationships, provide for collective activity and association, and allow people to meet their needs (Dickens, 1992: 70-1). As the expression of the exchange-value of all other commodities, money takes on a special significance. It becomes the sole expression and purpose of human productive effort. People want money because it enables them to meet their needs. It makes everything possible. According to Marx, "Money is the alienated ability of mankind (sic)" (Ollman, 1971: 193-4).

Alienation is not only a condition facing workers - it expresses itself through all social relations, and takes different forms in different classes according to their material conditions and life experiences. As Marx argued, "the whole of human servitude is involved in the relation of the worker to production, and every relation of servitude is but a modification and consequence of this relation" (quoted in Ollman, 1971: 154). Outside of production, social relations under capitalism take the form of "struggling, cajoling, begging, conniving, stealing, lying and pushing others out of the way in order to obtain the necessities of life", where people in all classes confront one another as alien and competing individuals (Ollman, 1971: 213).

If class relations under capitalism express people's alienation from themselves and from their fellow human beings, then the existence of class society per se represents the

alienation of people from their human nature. As Marx argued, "in estranging man (sic) from nature, and from himself, his own active functions, his life activity, estranged labour estranges the species from man" (quoted in Tollman, 1991: 65-6). The potential of human nature is distorted and its creative capacity compromised through capitalist social relations and the property regime on which these class relations rest.[vii]

Alienation is not just a condition that faces humanity in its economic activity, for "wherever one travels in the realm of estrangement, the story is the same" (Ollman, 1971: 222). Emotional and spiritual aspects of human nature become dislocated and take on a life of their own. Alienation, as the "splintering of human nature into a number of misbegotten parts," is a material reality that then finds expression in people's minds (Ollman, 1971: 135). Body and spirit become separated and gods are created as external embodiments of humanity's alienated spiritual capacities. As Marx argued, "the abstract enmity between physical sense and spirit is necessary so long as the human feeling for nature, the human sense of nature, and therefore also the natural sense of man (sic), are not yet produced by man's own work" (Ollman, 1971: 227).

Human alienation from nature finds a variety of expressions in people's conceptualisation of nature and in their attitudes towards their natural environments. In spite of our increasing socialisation of nature, human interaction with nature is less and less direct. There is less immediate sensual experience, so essential for human well being. We treat nature as a set of fragmented parts from which we are separated. Materially we express this relation towards nature through exploitation and abuse. Increasingly however, we

compensate for our utilitarianism with a romantic concern for nature so that a purified and fetishised version of nature begins to take off in the human imagination (Dickens, 1992: 151; Dickens, 1996: 104-6).

Our romantic image of nature comes to represent something that humanity has lost - a yearning to go back somewhere, out of our present, out of time and out of human culture. This idealisation of nature is a response to the insecurity caused by our alienation and by the rapid pace of social and environmental change. The present is too quick and too disrespectful of the past to allow for real experience, so people try to slow things down, try to return to the past in order to regain experience. In their concern for nature, human beings are looking for an experiential present, a sense of belonging that will relieve their feelings of alienation (Soper, 1995: 198). But as Harvey argues, the "tourist gaze" at a romanticised nature is very different to the sense of value that humans derive from a lived experience in an environment in which they are embedded through work, play, and a variety of cultural activities (Harvey, 1996: 36).

For the most part, our simultaneous abuse and romanticisation of nature come together and share their realisation as commodities in the market place. They combine in advertising, tourism, and green consumerism, so that our longing for authenticity gets turned into another form of alienation. As Soper argues, "a certain idea of nature becomes more desirable, and the desire for it more manipulable, as the reality it conceptualises is diminished and degraded" (Soper, 1996: 196).

Alienation, like any other material process, is not absolute. Contained within this human condition are the elements of struggle towards new possibilities and new worlds. Just as the alienation of workers at the workplace prompts indignation and the confidence to struggle, so the condition of estrangement and insecurity facing the majority of humankind forces us to search for our humanity. And there are indeed a million individual and collective ways in which people connect with one another and with their natural environment that transcend our alienation, open up new challenges, and thereby confirm the human potential. Alienation, as a condition that has developed historically, suggests its opposite – human self-realisation - as a possibility. And to transcend our alienation, with all the deceptions and illusions it contains, requires a self-conscious act on the part of human society. In Marx's view:

> The positive transcendence of private property, as the appropriation of human life, is therefore the positive transcendence of all estrangement – that is to say the return of man (sic) ...to his human existence...This communism...is the genuine resolution of the conflict between man and nature and between man and man – the true resolution of the strife between existence and essence, between objectification and self-confirmation, between freedom and necessity, between the individual and the species. Communism is the riddle of history solved, and it knows itself to be this solution (quoted in Benton, 1993: 29, 31).

2.6 HUMAN MASTERY OF ITS RELATIONS WITH NATURE

In Marx's vision of communist society the transcendence of private ownership of natural resources and economic property and the disappearance of class relations, provides the basis for humans to fully realise their potential. Competitive individualism is replaced by mutual co-operation, allowing humans to positively express their social nature (Ollman, 1971: 107-9). Communism is "the complete return of man (sic) to himself as a social

human being – a return become conscious, and accomplished within the entire wealth of previous development" (Marx, quoted in Parsons, 1977: 210). People will no longer seek to satisfy their needs by depriving others, so that need and its realisation lose their egotistical nature. Human need itself becomes transformed insofar as competition for material wealth becomes replaced by the collective purpose of self-realisation (Benton, 1993: 29). Human economic activity becomes human in the sense that it is directed towards collective social need and is no longer mediated and alienated by possession, greed, and profit-making.

According to Marx, this struggle on the part of human society to recover its humanity necessarily involves the struggle to recover human unity with nature (Parsons, 1977: 17). As human needs become redefined, nature loses its mere utility value. As humans start to recognise their engagement with nature as *human* engagement for the purpose of producing *human* (as opposed to alienated) products, they start to put their natural environment to proper *human* use (Dickens, 1992: 69; Vogel, 1988: 382-3). It is thus through the humanisation of nature, a proper recognition of our human (as opposed to abusive and alienated) relation to nature, that human society can overcome the dichotomy of humans (as subject) over and against nature (as the object). As Eckersley argues:

> This socialist notion of nature as our inorganic body, toward which we have a responsibility of care, is juxtaposed to the capitalist conception of nature as an alien 'other' to be exploited for profit (Eckersley, 1996: 279).

Marx used different terminology to conceptualise the potential new relationship that human society could construct with nature under communism, namely, "humanisation", "control", "domination", and "mastery". His terminology, and the contradictory ways in

which Marx developed his arguments, is regarded by deep ecologists and other ecocentric perspectives as the most objectionable aspect of Marx's humanism. Ecocentrism argues that Marx's technicist and productivist vision of humans dominating nature implies more of the same arrogant human abuse of the natural environment (Grundmann, 1991b: 3).

Even within the contemporary Marxist environmental tradition there is considerable controversy over the ecological meaning of Marx's vision of humanising nature. This controversy is fuelled by an ambiguity in Marx, i.e. by the tension between his early "weak" humanism, where he emphasised the unity between human society and nature, and his later "strong" humanism, where he emphasised human domination of nature on human terms (Dickens, 1992: 85).

Benton, taking up one position within this debate, criticises Marx's strong anthropocentrism and argues that the concept of humanising nature is too loaded with notions of domination and transformation (Benton, 1989: 581). Grundmann, however, seeks to defend Marx by arguing that domination and humanisation should rather be read as "mastery". Grundmann argues that ecological crises are the result of a lack of mastery of nature and that the humanisation of the natural environment involves increasing human understanding and control. Grundmann suggests that Marx did not simply equate technological development with mastery, insofar as he recognised the potential for ecological damage under capitalism. For Grundmann, the concept of domination must be understood to mean conscious control over nature, which, he argues, is incompatible with

undermining the quality of life through ecological destruction (Grundmann, 1991a; 1991b: 2-5).

Soper, while certainly not defending Marx's every word in the same way that Grundmann seems to, argues that while Marx clearly was committed to the idea of mastering nature through technology and science, his perspective was not one of unbridled productivism and disregard for nature. She explains that any ecologically-sound socialist corrective to the damage brought by capitalism will have to involve highly sophisticated technological intervention, and that the very restructuring of human needs, values, and priorities implied by socialism would bring about an ecologically sensitive engagement with nature (Soper, 1996: 92-5). In response to ecocentric critiques of Marx, Vogel draws on Marx's normative interpretation of humanisation to argue that it does not mean domination and abuse, but rather suggests a compassionate relationship with nature. In Vogel's own words, "to see the environment as both already human and as potentially further humanisable is not necessarily to see it as unimportant, as 'mere matter' to be manipulated, but rather perhaps to cherish it as an objective expression of our connection, of our own objectivity" (Vogel, 1988: 383-4).

In his debate with Grundmann, Benton argued that Marx's technological optimism (and Grundmann's defence of it) portrays nature as too passive and predictable. Human society can only go so far in mastering the complexity and unpredictability of nature, so that it is unthinkable and undesirable to adopt a perspective that advocates a limitless control of nature. Instead, Benton suggests, the ecological aim of socialism should be to

develop human mastery or control over how human society relates *to* nature, rather than *over* nature itself. In other words, technology and all forms of mediation between humans and nature should be brought under ecologically-wise social control (Benton, 1992: 66).

In the light of this debate around the Marxist meaning of humanising nature it is important to remember Soper's advice on approaching Marx's ambiguity with some creative flexibility[viii]. Marx's normative statements about human mastery of nature in a future communist society contain incredibly rich philosophical and political suggestions, and it is really up to us to give progressive content to the possibilities that he outlined.

Our experience of the destructive impact of capitalist economic activity on our environment over the last century, makes it self-evident that a progressive human mastery of our relationship with nature has to be ecologically sound, and that we have to err on the side of prudent pessimism rather than technological optimism. In this sense, the humanisation of nature must not imply an extension of human domination and abusive control, but rather an expansion of human understanding of nature, its processes, and its natural limits. Writing in 1876, Engels captured well the distinction between an abusive domination of nature and a human mastery of its relations with its natural environment.

> Let us not flatter ourselves overmuch on account of our human victories over nature. For each such victory nature takes its revenge on us. Each victory, it is true, in the first place brings about the results we expected, but in the second and third place it has quite different, unforeseen effects which only too often cancel out the first...Thus at every step we are reminded that we by no means rule over nature – but that we, with flesh, blood, and brain, belong to nature, and exist in its midst, and that our mastery of it consists in the fact that we have the advantage over all other creatures of being able to learn its laws and apply them correctly (Engels, 1976: 180)

Given our peculiar human capacity for self-conscious activity, it is only through mastering our ecological relation to nature that we can begin to address our abuse of the environment. This progressive humanisation of nature is not just a scientific or moral exercise, compatible with capitalist social relations. It can only happen, Marxism would argue, when we overcome our alienation and estrangement from our fellow humans, from our human nature, and from our natural environment through a fundamental transformation of human social relations. What is an ecological issue is also therefore immediately an economic, social, and cultural issue, the totality of which confronts us as a self-conscious question of choice and therefore as a political question.

In this chapter I have argued that dialectical materialism offers a holistic and dynamic perspective on all life-processes and emphasises the importance of understanding discrete entities as expressions of changing relationships. In this regard we must start with humans as part-of-nature, because it is by virtue of our natural existence that we exercise our relative independence from our natural environment and transform it to meet our socially-defined needs. This is not a one-way relationship. Human history is at the same time environmental history, so that human society and nature mutually determine and impact on each other. Marxism argues that the particular way in which human society relates to nature changes historically, and that this relationship finds expression materially, culturally, philosophically, and spiritually. Through its commodification of nature, contemporary capitalism has entrenched a human/nature dualism which finds expression in an alienated conception of nature as a set of utilitarian objects or as a fetishised romantic refuge for lost aspects of our humanity.

In the following two chapters I argue that dominant discourses in contemporary environmentalism express rather than challenge these alienated conceptions of nature. While on the one hand technocentric environmentalism regards nature as an object to be bought, sold, or managed, ecocentrism on the other hand, idealises nature as the embodiment of all that is external to profane humanity. Without negating the positive contributions of both perspectives to defending our natural environment, I argue that their dualistic worldview inhibits their potential to develop a progressive environmental politics.

Notes to Chapter 2

[i] Essential characteristics or relations are those that are fundamental and necessary to the existence of something. An essential feature is something that is inherent in the nature or constitution of an entity or a relationship. This essential characteristic will take different forms historically. For example, Marxism would argue that humans are essentially part-of-nature and apart-from-nature. The specific way in which their reliance on nature and their independence from it manifests itself, varies with historical circumstances. Similarly, Marxism would argue that humans are essentially social beings, needing to cooperate with one another. Once again, the exact form that this co-operation takes (economically, socially, and politically) has varied dramatically throughout history.

[ii] Most notable in this regard is Marx's 1844 *Economic and Philosophical Manuscripts*.

[iii] Dialectics, a form of logic practised by the early Greeks and prominent in Buddhist and other Eastern philosophy, emphasised the role of contradictory dynamics within life-processes as the basis for their development and change. Marx and Engels developed their dialectical materialism through a critique of the idealism of the dialectics of the early 19C German philosopher Hegel and of the mechanical materialism of Feuerbach.

[iv] Here we are referring to systems of Western philosophy. Eastern wisdom offers a deeper and longer tradition of holism – a holism which emphasises the continuity, complexity, interconnectedness, contradiction, and dynamism of organismic life-processes. Specifically, the Chinese conception of Chi as a life force that embraces spirit and matter, is made up of two elements, yin and yang, whose dynamic and often contradictory relationship gives rise to all forms of life (Wei-Ming, 1989: 68-73).

[v] This understanding of human dependence on a connection with nature is echoed in Chinese wisdom which argues that human nature contains the capacity and the need to take part in and be conscious of its connection to nature. This makes possible the full expression of human potential. Anthropocentric self-centredness and any disconnection from the life-processes around us (Wei Ming, 1989: 76) compromise our human potential.

[vi] Chinese wisdom regards humans as being the most sentient beings, having Chi in its highest expression. "It is man (sic) alone who receives the five elements in their highest excellence (water, fire, wood, metal, and earth), and therefore he is the most intelligent. His physical form appears, and his spirit develops consciousness. The five moral

principles of his nature (humanity, rightness, propriety, wisdom, and faithfulness) are aroused by, and react to, the external world and engage in activity: good and evil are distinguished; and human affairs take place" (Chou Tun-I quoted in Wei Ming, 1989: 75).

[vii] Dickens argues that the contemporary globalisation of capitalism adds new dimensions to people's alienation. Human experience and knowledge have meaning within specific spatial, cultural, and temporal contexts, and globalisation stretches that context far beyond direct experience. Globalisation increasingly separates aspects of a production process, the products from the producers, and the consumers from the context of production. Developments in technology, transportation, and communications decrease reliance on local environments, climate, and seasonality for production. Nature, as a force of production, becomes more and more remote. People are increasingly affected by events and decisions that are outside of their control. This undermines people's sense of having their place in the world, their identity. This creates an "ontological insecurity" in people, an insecurity that arises out of the tension between the human need to make sense of direct sensuous experience and the increasing complexity and distance in social interactions (Dickens, 1992: 146-57).

[viii] See Chapter 1 for a more detailed discussion of this.

CHAPTER 3

NATURE AS A COMMODITY: A CRITIQUE OF TECHNOCENTRIC ENVIRONMENTALISM

3.1 INTRODUCTION

My aim in this chapter is to offer a critique of the philosophical framework and politics of the technocentric perspective within mainstream environmentalism. Drawing on the tradition of wilderness conservation, technocentrism forms the dominant approach within Western environmental thought and practice (O'Riordan in Pepper, 1993: 34). As such it is strongly institutionalised within national governments, international agencies, academia, business, and the environmental profession. Technocentrism looks to the pragmatic application of science and technology, market forces, and environmental management for the mitigation of the negative environmental impacts of economic activity (O'Riordan in Pepper, 1993: 34).

Technocentric environmentalism assumes two broad, though overlapping, forms. In its most conservative form, technocentrism serves as an extension to neoliberal economics. The 'business as usual' perspective of environmental economics sees the privatisation of nature and the attachment of monetary values to environmental goods and services as the route along which human society will come to properly appreciate its natural resources. Environmental management systems, technological innovation, and enlightened engineering will assist the invisible hand of the free market in protecting the environment from excessive abuse (Pepper, 1993: 34).

The second thrust of technocentrism is what O'Riordan describes as the accommodationist (or reformist) perspective of liberal business and political organisations (including some 'green' political parties), environmental scientists, and a range of trade union, civic, and non-governmental organisations (O'Riordan in Pepper, 1993: 34). It is also the dominant perspective within academia and within the environmental consultancy profession in the West. Often referred to as "shallow ecology"[i], this environmental reformist stream believes that existing capitalist political, social, and economic relations can embrace greater ecological sensitivity without being transformed in any significant way. It seeks greater protection for the natural environment through impact assessment, environmental management systems, increased accountability and regulation, environmental planning, and environmental education (O'Riordan in Pepper, 1993: 34; O'Connor, 1997: 270).

I argue that the technocentric conception of nature as a commodity to be marketed or managed reflects a dualistic perspective on human-nature relations that arises out of our contemporary alienation from nature. Trapped within the worldview that has long regarded nature as a set of utilitarian resources, the protection of which must always be compromised by a profit motive, technocentrism has been accused of offering little more than "end-of-pipe" solutions (Harvey, 1996: 374) and "cosmetic environmentalism" (Gare, 1995: 100).

My critique of technocentrism in this chapter is carried out through an analysis of its discourse of sustainable development,[ii] since this constitutes its broad policy objective of

marrying the interests of environmental protection with capitalist economic growth. Before doing that however, I outline the philosophical premise of technocentric environmentalism – that nature is a 'thing,' somehow external to human social relations, that needs to be utilised, exploited, conserved, or managed – and to trace some of the historical processes that generated this alienated conception of nature. I do this firstly by exploring the utilitarian conception of nature, and secondly, by examining Western capitalism's packaging and marketing of 'wilderness'[iii] as a commodity.

By presenting this alienated and commodified nature as 'natural', technocentric environmentalism is able to promote the notion that the welfare of our natural environment is somehow detachable from the economic interests and social relations that are responsible for environmental degradation. In exploring this discourse within environmental economics and environmental reformism, I argue that the perceived objectives of sustainable development are not compatible with the economic and social system of contemporary capitalism.

3.2 MARKETING NATURE AND WILDERNESS AS COMMODITIES

Nature as a source of usable goods and services

The development of capitalism over the last two centuries, from its birthplace in Europe and through colonial and imperialist expansion across the globe, has had a profound impact on human relations with nature. An insatiable demand for raw materials, the conversion of natural resources into private property, the spread of commercial

agriculture over arable land, the freeing of people from subsistence production into wage labour, continual technological innovation, and the detachment of production and consumption from an immediate natural environment, have all been features of the process through which nature has been turned into a commodity (Beinhart and Coates, 1995: 7). As such, nature is regarded today primarily as a source of usable and exchangeable goods and services, embracing as this does both raw materials for productive activity as well as access to wilderness as a highly marketable aesthetic and recreational asset.

Within the cultural tradition of the West, an alienated instrumental view of nature did not simply spring out of the capitalist market-place but has deeper origins in religious, philosophical, and scientific thought. Lynn-White argues that the contemporary anthropocentric attitude of dominating nature has its origins in Christianity, in the notion that humans "are too good and too significant for the earth and are paying it only a passing visit" (in Hallman, 1992: 104).[iv] Christianity's devaluation of nature has fostered a dichotomy between humans and nature and between the human body and human soul. This has allowed for the self-elevation of the human immortal soul over and above the rest of nature. Historically Christianity has provided an ideological framework for the development of utilitarian philosophy and capitalist instrumentalism (Hallman, 1992: 104-5). This perspective stands in contrast to most other pre-capitalist religious traditions, most notably those Eastern philosophical and cultural traditions that have emphasised humanity's integral place in the stream of natural life (Callicot and Ames, 1989).

With more immediate and direct bearing on the development of capitalism, is the pervasive influence of Cartesian[v] thinking on Western science and philosophy. Cartesian thought, as the basis for empiricist and positivist scientific thought and practice, separates organisms from their environment and from the dynamic processes of which they form a part (Harvey, 1996: 61). This alienated form of apprehending living reality turns nature, as a set of systems and processes with which humans are integrally connected physically and socially, into "a collection of usable elements, a mere external prerequisite of human existence, to be moulded according to our wishes" (Haila, 1992: 11).

While the origins of this alienated conception of nature lie in the dualism established in religious thought and in the mechanical epistemology of Western science and philosophy, it has become consolidated and entrenched through capitalism's commodification of nature. As Schmookler graphically stated,

> ... in the grip of a system that breaks everything down into commodity form the earth is violated. The living planet is dismembered, as land becomes real estate, forests become lumber, oceans become fisheries and sinks (quoted in Foster, 1995b: 26).

This alienated regard for our natural environment is not confined to the West. With the globalisation of capitalist economic and social relations a utilitarian and instrumental attitude has come to eclipse pre-capitalist cultural perspectives internationally. Nowhere is this more obvious than in the East, where in spite of deeply holistic traditional worldviews on human-nature relations, some of the worst environmental abuse is being experienced (Callicot and Ames, 1989: xix). While the global commodification of nature is most evident in our economic appropriation of natural resources, it has also generated a

wider cultural alienation by turning humanity's spiritual connection with nature into a marketable asset. It is to the ideology of wilderness that we now turn.

The commodification of wilderness

Nature as a commodity does not only have meaning as a material resource, but is also marketable for those in search of an authentic wilderness experience[vi]. If the purpose of our conquest of nature has been to reduce it to a use-value, the spiritual expression of this estrangement has been the construction of wilderness areas in the form of protected reserves and parks. The irony is that these 'natural' areas require considerable human intervention and management to maintain their authenticity (Hayles, 1989: 410). Like caged animals, or indigenous people forced into reserves, protected wilderness areas emerged in the wake of conquest and settlement – a product of the very historical process that threatened their existence (Cronon, 1995: 78-80).

The notion of wilderness is central to the historical development of conservationism, a tradition that is still strong within contemporary environmental management.[vii] The history of conservationism in North America and South Africa, where it grew out of the process of colonisation and coercive capitalist expansion (Beinhart and Coates, 1995: 7-11), drew on two convergent cultural traditions – that of frontier conquest and the Romantic "doctrine of the sublime"[viii] – which were functional to capitalist expansion and its taming of nature (Cronon, 1995: 72).

In the 18th century, both the idea and experience of wilderness evoked conflicting responses in the minds of Europeans. On the one hand it carried negative connotations, being associated biblically with those places outside of Eden that were filled with confusion and despair. On the other hand, the Romantic search for awe-inspiring majesty offered wilderness as a mysterious cathartic experience which could serve as an antidote to the comfort of the civilised European world. Both of these associations provided a challenge – to rediscover primal human energies through the process of taming and domesticating indigenous people, wild animals, and wide open spaces (Cronon, 1995: 72-77).

Just as European racism allowed for the conquest of indigenous peoples, so gender values were highly significant in the domestication of nature within this frontier culture. In the North American frontier culture the masculine cowboy personified the rugged individualism of living on the margins of civilised society (Cronon, 1995: 77). In South Africa, hunting wild animals was central to the passage from boyhood to manhood (Beinhart and Coates, 1995: 17). The evils of nature, like the dangerous wiles of Eve in the Genesis story, had to be subdued. Virgin land only needed domestication by man and agriculture in order to be bountiful (Merchant, 1995: 145). As Merchant argues:

> The narrative of frontier expansion is a story of male energy subduing female nature, taming the wild, ploughing the land, recreating the garden lost by Eve. American males lived the frontier myth in their everyday lives, making the land safe for capitalism and commodity production. Once tamed by men, the land was safe for women (Merchant, 1995: 146-7).[ix]

Conservationism emerged both in North America and in South Africa in the late 19th century out of the destructive impact of frontier expansion. It comprised a mixture of economic concern for dwindling resources, nostalgia, scientific interest, recreational and aesthetic needs of the colonial elite (and later the mobile middle class), and a drive for settler national and cultural identity (Beinhart and Coates, 1995: 72-5). Hunting controls, protection of indigenous forests, and land conservation reflected a concern for the efficient use of economic resources. Alongside these utilitarian motives, there emerged a cultural concern to protect areas of wild beauty. Wilderness had now become a domesticated Eden. Indigenous people had been forced into reserves, leaving dehumanised 'pristine' areas. Unspoilt nature was no longer associated with danger and mystery but had became an object of contemplative pleasure, reflecting the scientific and aesthetic interests of the affluent (Cronon, 1995: 72-5). A cultural yearning for authentic experience led to the establishment of game reserves, national parks, and protected areas (Beinhart and Coates, 1995: 72). The frontier culture of conquest gave way to the nostalgic and vicarious pioneering of wilderness tourism so that "land spared the hoof, the axe, the pick and the plough was none the less commoditized" (Beinhart and Coates, 1995: 78).

The packaging of nature as an object to be bought, sold, conserved, or managed, is primarily the function of utilitarian economic interests but it also embraces the contemporary Western spiritual appreciation of wilderness. Within the framework of Western religious and philosophical traditions and through the development of capitalism, the commodification of nature has established a deep duality between

humans and nature. Natural resources are regarded as 'useful objects' and a dehumanised wilderness offers us 'authentic' nature. It is through this same alienated perspective on nature that technocentric environmentalism seeks to remedy our contemporary abuse of nature.

3.3 THE TECHNOCENTRIC DISCOURSE OF SUSTAINABLE DEVELOPMENT

Technocentric environmentalism seeks to reconcile the status quo of existing capitalist economic and social relations with environmental protection. Both environmental economics and environmental reformism articulate this objective through the discourse of sustainable development. The concept of sustainable development was first formulated in the 1970's as an attempt by conservationists to promote recognition of ecological limits to economic growth (Hill and Bowen, 1997: 224-5). It was understood to offer a compromise between business and environmental interests. Sustainable development acquired more specific definition during the 1980's when the Brundtland Report invested the concept with the principle of intergenerational equity, and identified the abolition of poverty as an integral aspect of environmental management (Hill and Bowen, 1997: 224-5).

The objective of sustainable development is promoted by a wide variety of environmental perspectives and can also be found in documents of the World Bank and United States military. This does not reveal any common vision but suggests that the term can be used to mean almost anything (Peet and Watts, 1996:1). While some emphasise the need to manage resources in such a way as to ensure capitalist economic growth, others argue for

a more holistic and ecologically sensitive redefinition of development (Barbier, 1987; Goodland, 1995: 1-5).

Over the last 30 years there has been a growing awareness of the connection between environmental problems and other global problems such as population growth, resource scarcity, and poverty. It is out of this recognition that the discourse of sustainable development emerged as an attempt to shift away from nature conservation and towards managing the environment as a development issue. The emergence of a range of international institutional initiatives and regulatory agendas concerned with the environment and the advance of science and technology reflect the technocentric vision of global environmental management (Watts, 1996: 22-30).

It was no accident that the concept of sustainable development emerged when it did. Escobar argues that the idea of sustainable development must be seen as a new trend within capitalism where, alongside the traditional exploitation of natural resources, the "sustainable management of capitalised nature" becomes necessary (Escobar, 1996: 47). This need arose out of the threat that capitalism posed to its own resource base or "conditions of production" and due to the challenge being posed by increasing public disquiet about environmental degradation (Escobar, 1996: 47).

Escobar argues that the notion of "managing the environment" that was put forward by the 1987 Brundtland Report was very significant. Through this discourse, says Escobar, nature achieved its final commodity form. The fact that the case for protecting nature had to be

put in economic terms ("sound ecology is good economics") signified the symbolic death of nature (Escobar, 1996: 52). Environmental reformism seeks to reconcile environmental protection with economic development without undermining the market system (Escobar, 1996: 49-50). The discourse of sustainable development then, according to Escobar, carries with it very specific social, political, economic, and cultural interests.

> Who is this 'we' who knows what is best for the world as a whole? Once again, we find the familiar figure of the white male Western scientist-turned-manager... the benevolent hand of the West should save the earth; the Fathers of the World Bank, mediated by Gro Harlem Brundtland, the matriarch-scientist, and the few cosmopolitan Third Worlders who made it to the World Commission, will reconcile 'humankind' with 'nature'. It is still the Western scientist that speaks for the Earth (Escobar, 1996: 50).

In the late 1980's the World Bank embraced the concept of sustainable development. Criticising the top-down approach of modernisation the Bank argued for a new orientation towards "capacity-building, grassroots participation, decentralisation and sound environmental practices" (quoted in Peet and Watts, 1996: 17-18). Peet and Watts argue that this marks a sophisticated shift of development discourse. The history of development policy since the 1940's shifted from an emphasis on state planning and state involvement to debt-fed development, and in the 1980's to an emphasis on the integration of "developing" countries into the global market through export-oriented commodity production (Peet and Watts, 1996: 20).

Prompted by considerable grassroots resistance and the emergence of 'people's power' in Latin America, Eastern Europe, South Africa, the Philippines, and India, a new discourse was needed that could restructure international capitalist control – namely, the discourse

of empowerment and civil society. What has made it possible for leading capitalist institutions like the World Bank to appropriate the language and models of the struggles and movements which oppose them, is the new neo-liberal confidence and free-market triumphalism that followed the collapse of socialism in Eastern Europe and the decline of many collective movements. It is in a cultural climate of growing individualism and self-interest that capitalism can focus on the needs and interests of ordinary people at a local level – and much of this is articulated in the ambiguous discourse of sustainable development (Peet and Watts, 1996: 24-27). It is within this broad political and economic discourse of sustainable development, that environmental economics and environmental reformism seek to reconcile capitalist economic growth with sound ecology.

3.4 'BUSINESS AS USUAL' WITH ENVIRONMENTAL ECONOMICS

The discipline of environmental economics grew out of the attempt by neo-classical economics to incorporate environmental protection into its discipline. Rather than question the role of capitalism in causing environmental degradation, environmental economists argue that the "invisible hand" of the free-market needs to embrace the natural environment in order to better protect it. Nature must be turned into a commodity with a market value in order for human society to value, and not abuse it (Panayotou, 1987).

Barbour points to the failure of the market to properly value environmental goods and services as the basic reason for their severe exploitation. It is argued that people do not approach environmental goods and services as rational consumers. In order for people to apply cost-benefit thinking to nature's resources, these would have to become

commodities - goods and services with a monetary value and with well-defined and transferable property rights (Barbour, 1992).

Environmental economics incorporates environmental protection into its market model without questioning the role of capitalist accumulation in creating environmental problems (Gare, 1995: 75). The neo-classical free-market model does not recognise the existence of structural social inequality. For this reason, its attempts to value the environment in the interests of sustainability, conflict with the reality of social and economic inequality. For example, the willingness-to-pay method of attaching a monetary value to environmental goods and services ignores the fact that "the rich are unlikely to give up an amenity 'at any price' whereas the poor who are least able to sustain the loss are likely to sacrifice it for a trifling sum" (Harvey, 1996: 368). Furthermore, from an ecological perspective, "this way of pursuing monetary valuations tends to break down...when we view the environment as being constructed organically, ecosystemically, or dialectically rather than as a Cartesian machine with replaceable parts" (Harvey, quoted in Foster, 1995b: 30).

Following Escobar's argument that capitalist interests are able to accommodate the pressure of the environmental movement by capitalising nature through environmental management (Escobar, 1996: 47), we can find numerous ways in which big business is turning the global environmental crisis to profitable ends. Harvey refers to an article in a 1995 issue of the *Economist* which celebrates a growing alliance between business and ecologists. The article was entitled, "How to make lots of money and save the planet too." The growth of bio-prospecting, through which food and pharmaceutical companies are

championing biodiversity for commercial gain, opens up the prospect of a deeper commodification and pillaging of natural resources (Harvey, 1996: 381).

It is easy to be impressed with some of the strict environmental legislation that exists in some of the developed capitalist countries, but a global perspective shows how these states are exporting unsustainability through the unbridled exploitation of raw materials in underdeveloped countries and by sending their toxic waste across the seas (Pearce, 1989: 45). This "toxic colonialism" has seen underdeveloped countries bidding against one another in an effort to sell their "sink capacity" for foreign currency (Harvey, 1996: 368).

Furthermore, the green technologies that have become a hugely profitable enterprise for capital in North America, Western Europe, and Japan, are not as altruistic as they might appear to be. These technologies, which have been developed as a result of strict environmental regulations and the high cost of litigation in pollution cases, largely offer end-of-pipe solutions. This means that they have been designed to clean up a mess rather than prevent it in the first place. Often the mess, in the form of hazardous waste, gets dumped near to impoverished minority communities or exported to underdeveloped countries desperately seeking foreign currency (Pratt and Montgomery, 1997).

The green technology industry in developed countries is trying to expand out of its home market. Hot on the heels of the severe environmental problems that development has caused in the Third World, come companies offering to sell technology to clean up the mess. In order to create this export market however, it is important to encourage the

formulation of environmental regulations in the Third World so that the green technology will be in demand (Pratt and Montgomery, 1997). In the same way that missionaries and anthropologists were once used as the unwitting ambassadors of colonial expansion, we might now find that environmental managers open up the market for the expansion of green imperialism into underdeveloped countries.

Environmental economics offers little in its commitment to sustainable development. Its abstract model of the free-market ignores fundamental economic, social, and political inequalities, and its methods for valuing environmental goods and services reduce ecological complexity to discrete entities and straitjacket these into purely utilitarian assessments. More fundamentally however, in its very effort to translate nature into monetary values, environmental economics places cost-benefit criteria at the centre of its concern – a guiding principle which cannot offer any consistent commitment to sound ecological practice. As Foster argues,

> the irony in turning to the economics of sustainable development – in its dominant formulation – for a solution to the environmental problem is that it continues to see human freedom and progress as synonymous with the instrumentalist organisation of human beings as self-serving, possessive individualists, even though this is the principle source of environmental destruction in our society (Foster, 1995b: 30).

In its effort to translate our human relation to nature into monetary valuations, environmental economics offers the clearest expression of an alienated disregard for our natural environment as a commodity.

3.5 ENVIRONMENTAL REFORMISM

The technocratic discourse of sustainable development cannot be reduced to its cynical appropriation by business interests. The environmental reformism of conservationists, green organisations, environmental scientists, non-governmental organisations, and a variety of international agencies, is often at odds with environmental economics. Environmental reformism assumes that society's abuse of the environment is due primarily to ignorance and attitude, and it therefore concentrates on seeking to raise environmental awareness in government, business, and among the public at large. This work, connected as it is to progressive scientific research and practice, has been in the forefront of legislative reform, environmental protection, pollution control, enlightened business practice, and a growing popular environmental awareness. While this work is realistic in the sense of engaging the powers that be and forcing concessions from them, it lacks a deeper political and socio-economic critique and assumes that capitalism and sustainable development are compatible.

Harvey (1996) argues that the general approach of environmental management (and here he includes environmental economics, environmental engineering, and environmental law) to environmental problems is to intervene after the event. Environmental problems are therefore regarded as mistakes that need to be dealt with on a case-by-case basis. In a similar spirit, preference is given to remedial (end-of-pipe) solutions rather than "pre-emptive or proactive interventions" (Harvey, 1996:374). Harvey argues that this approach

reveals a more or less complete accommodation to the "basic rights of private property and profit maximisation" (Harvey, 1996: 375).

Most of the efforts of environmental reformism, like other attempts to defend basic human rights in the face of neo-liberalism, is defensive work. But this important defensive work can only take on its fuller meaning if it looks beyond remedial measures towards more long term solutions, as unrealistic as they might seem, and if it develops some consistency between its reform programme and that grander vision. However much the struggle for environmental reform has advanced in the last ten years, it faces an increasingly hostile environment. The global economy of the 1990's is characterised by increasing privatisation, deregulation, the export of manufacturing industry to low-wage and low-cost environments in the Third World, structural adjustment programmes, mobility of capital, and a growing culture of competitive individualism. Not only are social and environmental problems multiplying, but the traditional forms of regulation over capital are increasingly being dismantled by neo-liberal governments. The growing climate of "free-market triumphalism" (Escobar, 1996) is hardly encouraging for proponents of environmental reformism – and especially not for those who pin their hopes on big business' sense of social and environmental responsibility.

Although armed with scientific legitimacy environmental reformism can easily be accommodated by powerful economic and political interests that are essentially hostile to it. Enlightened technocrats in the World Bank do not find it difficult to incorporate environmental impact assessments into their development planning (Redclift, 1984). The

absence of a more radical political perspective within the environmental reform movement leaves it open to co-option by the very interests it is trying to challenge. As Sachs argues:

> As governments, business and international agencies raise the banner of global ecology, environmentalism changes its face. In part, ecology – understood as the philosophy of a social movement – is about to transform itself from a knowledge of opposition to a knowledge of domination.... In the process, environmentalism becomes sanitised of its radical content and reshaped as expert neutral knowledge (quoted in Harvey, 1996: 383)

3.6 THE IMPOSSIBILITY OF SUSTAINABLE CAPITALISM

The technocentric politics of sustainable development come up against all kinds of contradictions in the practice of promoting environmental protection within the existing capitalist system. In general, capital will only support environmental research and implement environmentally-sound practices when it is in its own business interests to do so. More specifically, capital sees natural conditions instrumentally as economic resources that can facilitate profit-making; it is relatively blind to constraints that it cannot manipulate in its instrumental use of nature; and because costs are only measured in property/money terms it is more or less indifferent to cumulative impacts on ecological processes (Castree, 1995: 25).

While big business will always make gestures towards public opinion, these are inevitably cost-benefit decisions rather than fundamental ethical transformations. Polluter-pays practices can be enforced in this or that case, but there is no way in which capitalism can function on the principle of internalising costs. Perhaps the most idealistic feature of sustainable development discourse is the expectation that we are guided by some ethic of "species responsibility". The suggestion that capitalism will be moved to conserve

resources in the interests of future generations cannot be taken seriously in light of the fact that we deprive millions of our present generation of any access to adequate means of survival (Soper, 1995: 259-62).

Just as capitalism inherently generates poverty amongst human beings, so it systematically "gnaws away at the natural resource base which sustains it" (Pepper, 1993: 92). Without denying the defensive value of environmental reformism, I would argue that sustainable development is not compatible with capitalism, and that to be a meaningful objective its proponents needs to acknowledge that incompatibility politically.

Such a political shift requires a recognition of the fundamentally flawed economic and cultural framework through which we relate to nature. We need to step back from the arrogance of positivism and pragmatism to appreciate that our utilitarian and instrumentalist conception of nature, as some external object to be either abused, commodified, or managed, grows out of a very specific cultural tradition. And that tradition, as much as it presents itself as an objective rational matter-of-fact discourse, expresses a condition of human alienation that has been born out of capitalist social relations. It takes private property, production for profit, the laws of the market, class inequality, gender differences, and a range of other historically specific relationships as given and as part of some 'natural' order.

Over the last four decades there has emerged in the advanced capitalist countries of the West an increasing awareness of the environmental degradation caused by capitalist

economic development. It is to the philosophical perspective of deep ecology, a dominant voice within the broader ecocentric tradition that has come to challenge mainstream technocentric environmentalism, that I now turn. In the following chapter I argue that although ecocentrism offers a progressive critique of technocentrism's commodification of nature, it offers a romantic conception of nature that also arises out of our condition of alienation.

Notes to Chapter 3

---

[i] This is a critical characterisation of reformist environmentalism, offered mainly by deep ecologists.

[ii] The objective of sustainable development is subscribed to by a wide range of environmental perspectives and as such carries various meanings. In this chapter I am only concerned with the technocentric discourse of sustainable development.

[iii] The concept of 'wilderness' is drawn from the North American cultural experience. It can be usefully applied, as I argue in this chapter, to many contexts where colonial conquest and settler expansion involved the taming and domestication of land, animals, and indigenous people (Beinhart and Coates, 1995; Cronon, 1995).

[iv] Without exploring the issue, we need to acknowledge that there are many debates within Christianity with regard to the meaning of the biblical reference to man's dominion over nature. While some views emphasis human domination over the rest of nature, there is also a softer notion of human stewardship or caring for other living things.

[v] Refers to the philosophical traditions established by Rene Descartes, the 17th century philosopher. His philosophy consolidated the growing Western perception of a dualism between mind and matter. Cartesianism was also rigidly deterministic, arguing that the behaviour of all living organisms followed the laws of mechanical physics.

[vi] My critique of the concept of wilderness and its place in our contemporary relation to our natural environment is not to suggest that experiences of relatively unspoilt nature are not emotionally and spiritually important for human beings. In order to challenge our condition of alienation we must address the heart as much as the mind. New knowledge about nature and ecological processes as well as sensitising experiences in the wilderness are a necessary part of undoing our estrangement from our natural environment and developing a sense of our ecological place in the world. By learning to appreciate nature we can overcome the oppositions and dualisms in our lives. Since our life-work as a species is to make a home in nature, we must seek to establish an ecologically sensitive continuum between our lived environments and wilderness. One of the most valuable environmental project in South Africa today is the Working for Water Programme which, in employing thousands of unemployed people to cut down alien vegetation, has helped workers to develop an integrated conception of themselves in their environment. As one worker explained:

> I am working so that there will be more water. Those trees, they drink a lot of water. I wish this project can continue because it provides jobs for us. Because of this project we have learned to appreciate our flora and our mountains and we are able to teach the community about the dangers imposed on our indigenous plants by plant invaders. It is good and healthy in the mountain. I have never experienced it before (Working For Water Newsletter, 1998).

[vii] Although conservationism in North America and South Africa is still a strong tradition within contemporary environmentalism, the latter does depart from its more conservative predecessor in two important respects. Firstly, conservation was traditionally concerned with the protection of single species whereas contemporary environmentalism is more oriented towards habitat protection and sustaining biodiversity. This is the result of the development of the science of ecology and our greater appreciation of the complexity and interdependence of the natural world. Secondly, conservationism has traditionally conceived of wilderness as exclusive of people. Contemporary environmentalism, embracing as it does the emergence of ecotourism, is shifting more towards including people within protected wilderness areas.

[viii] This refers to the late 18th century and early 19th century philosophical and artistic revolt against classicism and the celebration of the awe-inspiring majesty of nature.

[ix] It is hard to resist reproducing a quotation from an early 20th century novel about the transformation of California by the railroad. In the following extract the author, believe it or not, is talking about the first use of the plough on arable land.

> It was the long stroking caress, vigorous, male, powerful, for which the earth seemed panting. The heroic embrace of a multitude of iron hands, gripping deep into the brown, warm flesh of the land that quivered responsive and passionate under this rude advance, so robust as to be almost an assault, so violent as to be veritably brutal. There, under the sun and under the speckless sheen of the sky, the wooing of the Titan began, the vast primal passion, the two world-forces, the elemental Male and Female, locked in a colossal embrace, at grapples (sic) in the throes of an infinite desire, at once terrible and divine, knowing no law, untamed, savage, natural, sublime (quoted in Merchant, 1995: 146).

CHAPTER 4

NATURE AS A MORAL AUTHORITY: A CRITIQUE OF ECOCENTRIC ENVIRONMENTALISM

4.1 INTRODUCTION

In contrast to technocentric environmentalism, ecocentrism defines itself in opposition to human-centred utilitarian approaches to nature. The ecocentric tradition and discourse includes deep ecology, eco-feminism, many green political parties, animal rights groups, a range of radical eco-socialist and eco-anarchist tendencies, as well as conservative and eco-fascist groupings (Pepper, 1993: 34; 47). What this variety shares is a strong form of naturalism, a bio-ethic that regards humans as one species amongst many but without any special privilege (Benton, 1993: 24). The bio-egalitarianism that defines ecocentrism, seeks to accord rights to all living things and to model human society on the natural ecosystems with which it coexists and on which it depends (Spretnak, 1984: 233). Ecocentric are broadly opposed to all anthropocentric, or humanist, perspectives, be they derived from Judeo-Christian religious traditions, Cartesian philosophy and science, neoclassical economics, or Marxism.

The discussion in this chapter focuses in particular on deep ecology - a dominant bio-egalitarian perspective and discourse. My critique of deep ecology centres on the argument that although its philosophical perspective and political vision articulates a challenge to our contemporary human estrangement from nature, its idealisation of nature is at the same time an expression of alienated thinking (Dickens, 1992: 84). While technocentric environmentalism expresses alienated thought by regarding nature as a

utilitarian object, deep ecology expresses that same dualism through a romantic reification of nature - not nature as a commodity, but nature as an embodiment of our lost human capacities and ideals (Quigley, 1992: 300).

At the heart of the ecocentric perspective is a romantic delusion – a delusion that it speaks on nature's behalf and that it is therefore less anthropocentric than the humanism that it criticises (Dickens, 1992: 159). Deep ecology philosophy and politics projects very specific human values onto nature (such as harmony and balance) but asserts that these are principles of nature. This 'nature' that is invoked as a moral authority and as a set of objective measures against which human society should be judged, is in fact ideologically and culturally constructed (Cronon, 1995: 20-25).

It is on the basis of this expression of alienated romantic thought that the political idealism of deep ecology emerges. It envisages the development of a co-operative, egalitarian, and ecologically-friendly human society – a transformation that will come about through a process of self-realisation and an "organic maturation" of human consciousness and attitude (Frodeman, 1992; Spretnak, 1984). The social relations that give rise to our estrangement from, and abuse of, nature and that inhibit any collective spiritual renewal, grounded as they are in the economic and political organisation of human society, are not however addressed by the politics of deep ecology. This political idealism expresses the paralysis of alienated thought in its inability to connect with the real material and social struggles that determine our contemporary alienated condition.

I begin this chapter with a general outline of the contribution that deep ecology has made to environmental thought. I then explore how deep ecology's romantic idealisation of nature and its establishment of nature as a moral authority over human society, expresses a human/nature dualism characteristic of an alienated regard for our natural environment. A central aspect of the perspective of deep ecology is its opposition to anthropocentric environmental thought which I explore in relation to contemporary Marxist proposals for a more ecologically-sound humanism in our relationship with nature. Following this I include a short discussion of eco-feminism's romantic association of womankind with nature in order to separate out idealist and materialist perspectives on gender oppression in contemporary social relations. I conclude the chapter with a critique of the idealist politics that flow from deep ecology's philosophical perspective.

4.2 THE CONTRIBUTION OF DEEP ECOLOGY

My critique of deep ecology first considers the significant ways in which its ecocentrism departs scientifically, philosophically, ethically, and politically from the utilitarian tradition of Cartesian thought and technocentric environmentalism. Deep ecology constitutes a dominant radical tradition within the environmental movement. There are four features of its contribution that define it in opposition to technocentric environmentalism.

Firstly, deep ecology connects strongly to progressive innovations within Western scientific thought and practice – marking a paradigm shift away from a mechanistic

worldview to that of relational ecological thinking (Capra, 1996: x). Broadly characterised as "systems theory", this emerging new scientific and philosophical perspective draws on quantum physics, ecology, organismic biology, process philosophy, cybernetics, systems management, cognitive immunology, and linguistic theory (Capra, 1996: x). While deep ecology draws strongly on this new paradigm, the new science of ecology does not automatically suggest ecocentric philosophies, morals, and politics. Our growing scientific understanding of ecosystems and our relationship to them, has contributed more broadly to changing attitudes and perspectives within the broader environmental movement. For example, ecological science has also given scientific substance to Marxist dialectics as a framework for understanding living systems (Parsons, 1977).

The second important contribution of deep ecology is its emphasis on holism – a philosophical perspective which emphasises the integrity of whole living systems. This is philosophically integral to systems theory as it seeks to bring together what Western mechanistic scientific and philosophical traditions have disintegrated. As a scientific, spiritual, ethical, and social paradigm, ecocentric holism seeks to challenge the alienated, dislocated, and fragmented experience and worldview that characterises capitalist social relations and culture (Capra, 1996: 19-22). An important aspect of this holistic perspective is its emphasis on process and on the inter-relatedness of phenomena, as opposed to interpreting reality as a set of discrete and static entities (Capra, 1996: 25-29).

Thirdly, in its search for a new age of harmony, unity, and egalitarianism, deep ecology draws on a range of cultural and political traditions that give it a politically critical perspective. Radical ecology movements in the United States grew up alongside the civil rights, anti-war, and counter-culture movements of the 1960's. Distinct from the Marxist challenge of capitalism and from Marxist politics of class struggle, radical ecology offered a broad critique of industrial society, materialistic values, technology, and consumerism, and developed a vision of a collective spiritual and cultural renewal (Zimmerman, 1994: 57-69).

During the 1970's this politically radical counter-culture gave way to the New Age emphasis on spirituality, self-realisation, and individual transformation. While deep ecologists reject much of the humanism of New Age-ism, there is a considerable shared philosophical leaning towards Eastern philosophy and traditional (particularly North American) spiritual practices (Zimmerman, 1994: 69-73). In the 1980's the emergence of the New Paradigm perspective out of New Age culture, marked a shift away from the latter's spiritual individualism and towards the science of ecology and systems-thinking. Capra, as an exponent of the New Paradigm perspective, sees the present global crisis of the environment and humanity as precipitating a collective and organic maturation of human consciousness (paradigm shift) which will usher in a socially and ecologically harmonious era (Zimmerman, 1994: 74-89). While I argue in this chapter that the politics of deep ecology is idealistic and rooted in alienated thinking, its broad radical critique of the alienated social relations and culture of modern capitalist society expresses an important human yearning for a new form of social organisation and relation to nature.

Lastly, deep ecology places a strong moral emphasis on the inherent value of all forms of life. Whatever problems exist with what has been called "ecocentric moralising" (Benton, 1992), the ethical stance of deep ecology challenges us to revive our human sensibilities and sensitivities towards life in all its forms – a challenge which, I will argue, requires not only a change of attitude but a fundamental reorganisation of the economic, political, and social relations that generate our alienation from nature.

Thus deep ecology, as a leading expression of ecocentrism, draws on science, religion, philosophy, and politics to present a broad critique of contemporary society and our relation to nature. But while deep ecology challenges the utilitarian humanism of technocentric environmentalism (which it calls "shallow ecology")(Capra, 1996: 7), its own idealisation of nature reflects the same dualistic thinking that undialectically and a-historically separates humans from the rest of nature. This philosophical perspective, I argue, prevents deep ecology from coming to terms with the changing historical forms of human relations with nature and therefore forces it to mislocate the problem of environmental degradation politically (Soper, 1995: 19). Rather than addressing the economic, political and social relations that historically determine our human relation to nature, deep ecology relies on humans changing their attitudes and consciousness. In detaching human ideas from the social reality that produces them, deep ecology politics (as with any form of political idealism) can only take effect amongst the intellectual middle class whose relative economic and social mobility allows them the privilege of philosophical self-fulfilment even within the constraints of capitalist social relations.

4.3 DEEP ECOLOGY'S IDEALISATION OF NATURE AS AN EXPRESSION OF ALIENATED THOUGHT

At the heart of ecocentrism is the ideological construction of nature as "wholly pure and unsullied by the interference of human beings" (Dickens, 1992: 159). This kind of romantic idealisation and yearning for authenticity reflects the human need to overcome the insecurity and estrangement that capitalist social relations have nurtured. Deep ecology's reification of nature involves setting it up as a force that is separate from human social existence - it involves "giving something that is socially mediated a life of its own" (Dickens, 1992: 84).

This process of fetishising nature denies the long history of material and cultural interaction of humans with nature and the fact that there is little of nature that can today be regarded as pristine. It sets up an essential opposition between a pure, balanced nature on the one hand and human society on the other, rather than appreciating the dialectical interaction between the impact of natural processes on human society and the human socialisation of nature (Cronon, 1995: 24-25).

Deep ecology's reification of nature is part of a broader romantic tradition that dresses nature up in human morality – nature can be an authentic sublime experience or a malevolent vengeful force (Cronon, 1995: 50). Regarding the former, giving nature a life of its own, separate from our social construction of nature and our complex engagement with it, often establishes nature as an idealised object of yearning and inspiration – a longing for something lost. This effort at alleviating an alienated human condition has a

popular commercial version in the pursuit of the natural and authentic through green consumerism and health foods (Dickens, 1992: 159-60).

Alternatively, nature reified can be seen as a hostile vengeful force. Research carried out in Britain has shown that many people fear that nature will exact revenge for our human disregard for our natural environment. Dickens argues that this feeling of helplessness in relation to the irrational forces of nature is a projection of peoples' feelings of social anxiety and loss of control over their lives, where "feelings and insecurities about relations within the social world are ... transferred to an understanding of people's relations with the natural world" (Dickens, 1992: 175).

As part of this romantic tradition, deep ecology presents nature as everything that is other than human, a kind of pristine otherness. While deep ecology's idealisation of nature reflects an important human need and aspiration, it sets up humans in opposition to nature – not as a specific historical situation, but as an essential relation (Soper, 1995: 18). A central feature of this dualism established by deep ecology, is its tendency to regard all human intervention in the natural environment as inherently devaluing – an anti-humanism that, if taken seriously, effectively disempowers human society from using its humanity to transform its relations with nature (Soper, 1995: 19). It is to deep ecology's ambivalence towards the responsibilities of human society in transforming its relations with nature that I now turn.

4.4 DEEP ECOLOGY'S CRITIQUE OF HUMANISM

Deep ecology, and other ecocentric perspectives, emerged in opposition to the anthropocentric assumptions of traditional Western philosophy. As the deep ecologist Charlene Spretnak argues:

> Green politics rejects the anthropocentric orientation of humanism, a philosophy which posits that humans have the ability to confront and solve the many problems we face by applying human reason and by rearranging the natural world and the interactions of men and women so that human life will prosper. We need only consider the proportions of the environmental crisis today to realise the dangerous self-deception contained in both religious and secular humanism. It is hubris to declare that humans are the central figures of life on earth and that we are in control. In the long run, nature is in control. (Spretnak, 1984: 234).

The fact that Spretnak calls on us, as humans, to "consider" and "realise", suggests that it can only be through a very conscious human act that we can reconstruct our relation to nature. As Tolman argues, "humans have created the problems, they are human problems, and humans will solve them. There is no other way to view these matters except through human experience conditioned by human history, and in terms of human values" (Tolman, 1991: 73). This is not a humanist preference but an existential fact, since "there is no escape from the human standpoint because it is the only standpoint available to us...it is exactly the human standpoint that gives rise to ethical issues" (Haila and Levins, 1992: 238). As Spretnak continues her argument, the necessity for a human solution to a human-made problem is made more explicit:

> Our goal is for human society to operate in a learning mode and to cultivate biocentric wisdom. Such wisdom entails a sophisticated understanding of how the natural world – including us – works...holistic, or ecological, thinking is not a retreat from reason; it is an enlargement of it to more comprehensive and hence more efficient means of analysis (Spretnak, 1984: 234-5).

The problem with the ecocentric critique of humanism however, is that it often suggests that our arrogant anthropocentrism is an essential part of human nature – that human nature is inherently destructive (Soper, 1995: 18). So while on the one hand deep ecology calls on human society to exercise its human capacity to develop an ecological wisdom, on the other hand it denies that we have that capacity in its unqualified rejection of humanism. Soper argues that this confusion arises out of deep ecology's mislocation of the source of the problem of our relations with nature. Instead of identifying specific historical and social forms through which humans have abused nature (most significantly, capitalism), ecocentrics abstract from history to blame the environmental crisis on some essential inherent capacity of human beings to devalue nature (Soper, 1995: 19).

Ecocentric arguments seek resolution to this contradiction by shifting the emphasis away from our human responsibility and capacity to change our relation to nature, towards an assertion of nature's objective rights. Aside from the fact that it requires a human process to acknowledge the intrinsic value and rights of all living things, the attempt by deep ecology to take the standpoint of nature creates even more problems than it solves. Grundmann argues that for ecocentrics to speak on behalf of nature requires all kinds of projections onto nature of human values and choices (Grundmann, 1991)[i]. Ecocentrism in this respect can only be deceptive, because even in claiming to take nature's standpoint humans will inevitably make human judgements and distinctions about what is valuable in nature and what is not (Soper, 1995: 256-9). It is unlikely that malaria-carrying mosquitoes or life-threatening viruses will be given the same respect and the same rights as whales or white rhinos.

A number of ecological Marxists and radical ecocentrics have sought to resolve this ecocentric/humanist stand-off by exploring a more ecologically progressive humanism. Benton argues for a "richer anthropocentrism" which recognises our essential human need for emotional and spiritual intimacy with nature. That appreciation, he argues, is not simply human subjectivity – it arises out of an interaction between an objective nature and our appreciation of it. We form our appreciation through our interaction with and upon nature, and through our familiarity and understanding of it. Our values and sensibilities are human-made, but, argues Benton, what we value is contained within nature itself – its inherent value (Benton, 1992: 71-3).

Similarily, Eckersley argues that we can both admit that our views and values are human and at the same time attach value to nature that is not simply about human utilitarian gain. This requires that humans do not seek to totally domesticate nature but rather recognise its relative autonomy and grant other forms of nature their independence and freedom (Eckersley, 1996: 273-82). Haila and Levins suggest that we can overcome the opposition between our need to utilise nature and our desire to respect nature through ethical principles that "grow from the realisation that nature is an internal prerequisite of human life and culture, and humans need to respect the general potential of life in nature. Nature is a value-in-itself as an inseparable part of human existence" (Haila and Levins, 1992: 238).

Marxist and humanist arguments for a richer anthropocentrism should have no dispute with deep ecology's call for the development of ecological wisdom in our material and spiritual dealings with nature. But for deep ecology to present this challenge as other than a profoundly human one only serves to remove our human responsibility for making this kind of change possible. Taking nature into a more mystical terrain of inherent value that is somehow detached from our human interaction with it, only serves to reinforce the alienation that deep ecology seeks to overcome. We can certainly move away from the arrogance of utilitarian anthropocentrism that characterises capitalist social relations, but the human endeavour of developing a richer appreciation of our specific human experience of being part-of and apart-from-nature, requires more humanism rather than less. As Soper argues:

> We are inevitably compromised in our dealings with nature in the sense that we cannot hope to live in the world without distraining on its resources, without bringing preferences to it that are shaped by our own concerns and conceptions of its worth, and hence without establishing a certain structure of priorities in regard to its use...All the same, we can certainly be more or less aware of the compromise, more or less pained by it, and more or less sensitive to the patterning of the bonds and separations that it imposes....Rather than becoming awe-struck by nature, we need perhaps to become more stricken by the ways in which our dependency upon its resources involves us irremediably in certain forms of detachment from it. To get 'closer' to nature is, in a sense, to experience more anxiety about all those ways in which we cannot finally identify with it nor it with us. But in that very process, of course, we would also be transforming our sense of human identity (Soper, 1995: 277-8).

The value of the ecocentric critique of anthropocentrism lies in its challenge to human society to move away from a purely utilitarian humanism towards ecological wisdom. This challenge from deep ecology "presumes the possession by human beings of attributes that set them apart from all other forms of life" (Soper 1995: 160). This human distinctiveness needs to be fully embraced and not denied through an anthropomorphic

assertion of nature's objective rights. It is through human distinctiveness that we have historically abused our natural environment and given priority to utilitarian human interests, and it is only through that same human capacity that we can develop an ecologically-wise humanism and reshape our relation to nature.

4.5 IDEALISM AND MATERIALISM IN ECO-FEMINISM

Ecofeminism has played an important part in deepening and extending ecocentric philosophy and politics through its critique of the patriarchal practices, attitudes, values, and discourse of modernity. However, much of this critique is also directed against deep ecology, insofar as the latter does not necessarily embrace a gender analysis of the anthropocentrism that it opposes. Although there are many different tendencies within eco-feminism, they share a rejection of patriarchy's historical domination over women and nature (Zimmerman, 1994: 278).

Within what is known as "essentialist" eco-feminism, an intimate spiritual bond is seen to exist between women and nature. This bond, it is argued, arises partly out of their shared oppression, but also through a biological determinism that gives women, with their reproductive role, a particular closeness to nature. "Non-essentialist" eco-feminists, disagree with this romantic formulation (Mellor, 1996: 251-2). They argue that gender is a social construct and that women's reproductive role (apart from the physicality of childbirth) is not naturally determined. To argue for some privileged natural or spiritual relation that women have with nature is to collaborate in relegating women to the maternal and reproductive realm (Soper, 1995: 268).

Women's particular experiences in the work of reproduction is not an essentialist ideal but a material reality. It is through cultural attitudes ("cultural eco-feminism") or patriarchal social relations ("socialist ecofeminism") that women have been forced into reproductive work. Women's particular intimacy with nature, as a material reality, is not just associated with motherhood and nurturing. Traditional gender divisions of labour in most parts of the world, reinforced as these have been by capitalist social relations, have forced upon women a particular combination of productive and reproductive work (Mellor, 1996: 257) - raising children, fetching water, collecting firewood, and subsistence agriculture. This experience is profoundly significant in giving women a close relation with their natural environment and a particular awareness of the struggle for access to resources. There can indeed be spiritual dimensions to this experience, just as men's relative distance from such work also has its emotional and psychological impact and expression. While it is important politically to recognise the specific ecological sensitivity that women often develop through their productive and reproductive work, to imply some natural women-nature bond (as appealing as it might sound) is as much a social construction as is the oppressive patriarchal abuse of women and nature.

4.6 THE IDEALIST POLITICS OF DEEP ECOLOGY

A central feature of deep ecology and other ecocentric views is their more or less direct extension of ecological principles into a political, cultural, and spiritual framework for an envisaged harmonious future society. The result is problematic in three ways. Firstly, the

ecological principles that are identified as offering guidelines for human social and political organisation are presented as uncomplicated objective prescriptions from nature rather than the ideological formulation that they are. Secondly, the emphasis of ecocentric politics on spiritual conversion and changing human perceptions and values ignores the material basis and social structures that give rise to these attitudes. Thirdly, while any radical politics must embrace a normative vision that is ideological and value-based, it must also connect with real social conditions and struggles. Ecocentric visions tend to stand aloof from the reality of the majority of humankind and do not offer more than promises of a kind of organic maturation of human consciousness as the means to realise ecological wisdom (Capra, 1996; Quigley, 1992). These three expressions of idealism within ecocentric politics, which I explore below, grow out of its character as a specifically romantic expression of alienated thought.

Regarding the first problem in deep ecology politics, Capra's book *The Web of Life* applies contemporary ecological thinking to social and political issues (Capra, 1996). He argues for an "ecological literacy" through which we can develop an understanding of the principles of organisation of ecological communities and use those principles to create sustainable human communities (Capra, 1996: 289). The specific principles that he suggests we can draw from the wisdom of nature include: a recognition of the necessity for interdependence since sustainable ecosystems teach us the value of nourishing multiple relationships; the importance of cyclical processes and feedback loops as a basis for sustainable use of resources; the importance of partnership and co-operation as opposed to competition and domination; and the need for communities to celebrate their

diversity and adapt to change in the way that ecosystems do (Capra, 1994: 290-2). Similarily, Spretnak suggests:

> Deep ecology encompasses the study of nature's subtle web of interrelated processes and the application of that study to our interactions with nature and among ourselves....Human systems may take from nature lessons concerning interdependence, diversity, openness to change with a system, flexibility and the ability to adapt to new events or conditions outside the system (Spretnak, 1984: 233).

Haila and Levins argue that the slogans and discourse offered by deep ecology politics are strongly misleading. Ecology they say, "does not give us prescriptions; all rules apparently derived from nature are ideological and political and should stand on their own without claiming endorsement from nature" (Haila and Levins, 1992: x). A political programme which suggests that nature directs us towards harmony, balance, feminine nurturing, co-operation, diversity, adaptation, complexity, flexibility, and small scale sustainability is extremely appealing. But it must be propagated and recognised as a human programme and not as one prescribed by nature. Each claim about nature is an ideological statement due to its partial truth. Alternative, and less appealing principles, argue Haila and Levins, can equally well be drawn from nature – dispensibility of species, competition, non-uniqueness, instability, conflict, and extinction (Haila and Levins, 1992: 2-7).

As attractive as specific ecological principles might be in our imagined construction of an alternative society, the extension of systems-thinking into social relations is very problematic politically. Its emphasis on interrelationships, balance, self-repair, and self-regulation is strongly reminiscent of functionalist sociology with its depiction of

(capitalist) society as a natural organism with its own internal ways of correcting deviation (Dickens, 1992). This extension of ecosystems thinking into social relations is not just politically conservative, it is also fundamentally misleading. It is precisely our unique human capacity for self-reflection and therefore for making history, that allows us to transcend biological determinism. It is through that capacity that we have alienated ourselves from nature, and it is through that capacity that we can humanly reshape our relation to our natural environment.

The second problem with deep ecology politics is that it seeks to address people's ideas rather than their social and material reality. Deep ecology is fundamentally concerned with changing people's attitudes, perceptions, and values. Capra argues that the vast array of social and environmental problems facing us today are "just different facets of one single crisis, which is largely a crisis of perception" (Capra, 1996: 4). He goes on to argue that the development of deep ecological awareness is a spiritual process which, while drawing on a variety of religious traditions, basically involves the discovery or realisation that the human self and nature are one. This, Capra argues, is the "grounding of deep ecology" (Capra, 1996: 11). This self-realisation lies at the heart of the radical environmental vision - the basis for constructing a new society along ecological lines requires that the human self move away from its ego-centredness towards recognising its place within broader life-processes and thus towards a caring for others and for nature (Frodeman, 1992: 319). Spretnak likewise suggests that it is primarily through an inner journey that we can overcome our alienation (Spretnak, 1984: 241).

The attention that deep ecology pays to human perceptions, attitudes, values, and spirituality – to the need for humans to overcome their alienation and reconstruct their identity in relation to all living things – is essential as a component of transformation. But the ecocentric emphasis on thought, attitude, and spirituality alone is hugely insufficient politically. The separation of humans from nature, the loss of biodiversity, the destruction of ecosystems, the thinning of the ozone layer, the depletion of natural resources, and the careless dumping of waste are not just the result of humans having the wrong attitude and ideas. What the idealism of deep ecology fails to examine are the social relationships and material practices which underlie the fragmentation of human experience, our alienation from nature, and the destructive behaviours and attitudes which result from that. While the adoption of alternative ways of thinking offers comfort to a minority of middle class people it does nothing on its own to challenge the material practices and social relations of capitalism (Dickens, 1996: 107).

This idealistic individualism of deep ecology, which is also characteristic of New Age perspectives, can be profoundly conservative politically. It argues that people's happiness is determined by their attitudes and not by their material circumstances, and goes so far as to suggest that oppression is just a state of mind. Pepper argues that this pressure to "think yourself better off" fits comfortably with neo-liberal individualistic culture (Pepper, 1993: 141-2). Insofar as self-realisation encourages a rediscovery of spontaneity, intuitiveness, and the "wisdom of the wild", it tends progressively towards challenging authoritarian control but conservatively towards individualism. In the context of the

contemporary neo-liberal contempt for collective social identity, purpose, and struggle, individual spiritual renewal has limited progressive capacity. As Quigley argues:

> The problem with such a view of resistance is that this structure partakes of what it opposes. The positing and centring of a unique and transcendent being that is linked to a natural realm is the structure employed by power systems; more immediately, it is also the basis for a free market society. The illusion of a free and unencumbered individual is currently at the centre of power (Quigley, 1992: 298-9).

My third critique of deep ecology's political idealism is its inability to connect its normative vision with contemporary social reality. Following the West German Green Party slogan, "we are neither left nor right; we are in front" (Spretnak, 1984: 232), deep ecology politics tends to stand aloof from social struggles and does not connect its political programme and vision with the diversity and commonality of the experiences and aspirations of ordinary people.

The idealism of deep ecology's envisaged political process (self-realisation) is matched by a similar idealism in the goal towards which it strives. On the one hand this political goal bears similar features to the visions embraced by socialists and anarchists – decentralisation, grassroots democracy, gender equality, cooperation, ecological wisdom, and an economy geared towards meeting people's needs as opposed to profit-making (Spretnak, 1984: 252). On the other hand deep ecology inclines towards resurrecting an imagined and idealised past, a "golden age of pristine wilderness" (Quigley, 1992: 300), which bears little relation to possibilities that our contemporary social reality suggests.

4.7 CONCLUSION

Ecocentrism, and deep ecology in particular, has brought a valuable scientific and spiritual discourse into the environmental movement that challenges the philosophical dualism of traditional mechanistic thinking. At the same time however, deep ecology serves to express our alienated human condition through its reification of a pristine nature, its projection of an ideologically constructed bio-ethic onto human society, its recourse to individual self-realisation as a programme for transformation, and its romantic construction of an idealised lost state as its political and social goal. The positive contribution of ecocentrism lies indeed in its ability to contribute towards a new ecological wisdom that embraces scientific knowledge, a new sensibility towards the inherent value of nature, and a striving towards a fuller realisation of human capacities. Unless these perspectives are built into a political programme that seeks to connect with the reality and struggles of ordinary people, deep ecology is bound at best to provide an exclusive zone of comfort to a few, and at worst to facilitate conservative moralising.

Notes to Chapter 4

---

[i] The projection of human values onto nature is by no means unique to deep ecology. Soper argues that our endowment of nature with diverse human characteristics shows that we conceptualise this "other nature through a process of anthropomorphism, in which we project on to that which we are not, those very qualities and attitudes that we deem exclusive to humanity" (Soper, 1995: 71). In a less sympathetic fashion, the 19th century philosopher, Nietsche, challenged anthropomorphic projections onto nature by arguing,

> "while you rapturously pose as deriving your law from nature, you want something quite the reverse of that, you strange actors and self-deceivers. Your pride wants to prescribe your morality, your ideal, to nature... you would like to make all existence exist only after your own image... this is an old and never-ending story" (Nietsche, quoted in Quigley, 1992: 299).

CHAPTER 5

HUMANISING NATURE: THE PERSPECTIVE OF ENVIRONMENTAL JUSTICE

5.1 INTRODUCTION

In the previous two chapters I argued that, notwithstanding the important pragmatic defensive work of environmental management and the valuable scientific and ethical contributions of deep ecology, technocentric and ecocentric environmentalist discourses remain trapped within the very philosophical and political framework that rationalises and reproduces our contemporary alienation from nature. While this human/nature dualism has a long history in Western philosophy and religion, capitalism, as an economic system and as a set of social relationships, has deepened our physical, cultural, and spiritual estrangement from nature. Yet even in challenging our contemporary abuse of our natural environment, both the technocentric and ecocentric perspectives express this alienation – the first through its commodification of nature as a set of utilitarian resources, as a fenced-off wilderness, or as a recreational asset; the latter through its romanticisation of nature as a moral authority over human society.

Although on the surface these two dominant environmentalist discourses stand opposed, they are philosophically and historically married to each other. In contrast to Marxism and to Eastern philosophy, technocentrism and ecocentrism abstract our historically and socially determined alienation from nature into a metaphysical relation. In spite of what either might recognise about our biological or ecological connection to nature, their philosophical starting point is that humans are essentially apart from nature. While

technocentrism celebrates our human domination over nature, and ecocentrism laments it, both express and reproduce the same human/nature dualism philosophically and politically. This shared philosophical perspective is not accidental, since technocentrism's commodification of natural resources and ecocentrism's romanticisation of nature emerged as two aspects of the same historical process. As O'Connor explains:

> Rapid industrialisation, urbanisation, and the commodification of land and labour resulted in both a human separation from nature and in a seemingly paradoxically greater or more universal respect in preserving nature, that is, the romantic sentimentalisation of nature presupposed the real or material alienation from the natural world (O'Connor, 1997: 24).

As uncritical expressions of an alienated worldview, technocentrism and ecocentrism are unable to step outside of their specific cultural determination and appreciate the historicity of their perspectives. The nature that each presents is depicted as 'natural', or 'authentic', outside of human subjective construction.

My purpose in this thesis, as I outlined in the Introduction, is to explore a more self-critical environmental ethic than that offered by mainstream environmentalism. According to Callicot and Ames (1989), the discipline of environmental philosophy was founded precisely in order to challenge the basic assumptions underlying our traditional perceptions of nature:

> The real-world problems which taken together constitute the so-called 'environmental crisis' appear to be of such ubiquity, magnitude, recalcitrance, and synergistic complexity, that they force on philosophy the task not of applying familiar ethical theories, long in place, but of rethinking the underlying moral and metaphysical assumptions that seem to have had a significant role in bringing on the crisis. Environmental philosophy, in other words, begins with the idea that

> traditional metaphysics and moral theory are more at the root of environmental problems than tools for their solution (Callicot and Ames, 1989: 1).

This chapter outlines an environmental philosophical perspective that can transcend the limitations of technocentrism and ecocentrism. I begin by distinguishing different social attitudes to nature within capitalist society and then explore the ways in which the contemporary struggle for *environmental justice* by oppressed and exploited people in different parts of the world constitutes a conscious or unconscious redefinition of environmentalism.

5.2 EXPERIENCE AND IDENTITY: THE POLITICS OF DIFFERENCE AND COMMONALITY

In the first part of this thesis I argued that notwithstanding the objective reality of nature and our ability to approximate its truth, our conceptions of nature are loaded with a human subjectivity that is historically and socially determined. Humans construct and communicate their relations with nature in a way that draws on and reflects their social identity, so that their interpretations of nature, and their attitudes and behaviour towards their natural environment, are rooted in their life experiences (Dickens, 1996: 85).

How a subsistence farmer, an urban industrial worker, the owner of a commercial farm, and a middle class nature-lover, variously regard nature and relate to it, reflect very different experiences of their respective environments (Soper, 1995: 218). These responses have as much to do with the social relations through which their experience of nature is mediated as they do with the specifics of the environment itself. In our

contemporary world there is probably no experience of nature (be it through the utilisation of natural resources, recreation, or aesthetic appreciation) that does not confront questions of ownership, control, and access - questions which fundamentally determine the nature of that engagement.

To illustrate how capitalist social relations give rise to very different attitudes towards nature we can consider the question of contemporary aesthetic appreciations of the natural environment. Just as our access to natural resources is determined by political, economic, and social relations, the way in which cultural and aesthetic conceptions of nature get articulated is affected by power relations in society. The dominant social ideas about nature are shaped by a privileged minority and are not necessarily shared by everyone. Soper argues that

> we need to insert a class dimension into any account of ourselves as nature lovers, since relations of class are not only inscribed physically within the landscape itself, but have also had a major impact on the production and consumption of its cultural representation (Soper, 1995: 234).

The dominant discourses within environmentalism (and here I refer to a broad green sentiment that embraces both shallow and deep ecologists as well as informed middle class[i] public opinion) assume that there is a common universal valuing, or capacity to value nature, amongst humans. Such assumptions are not self-critical regarding the cultural and historical conditioning of their essentially middle class appreciation of nature's aesthetic appeal and its intrinsic value (Soper, 1995: 216)[ii]. This appreciation of nature's sublime aspects, argues Soper, is a product of our domination over nature – it is an appreciation (rather than a fear, confrontation, or intimate daily connection) that arises

by virtue of the confidence and safety of middle class control and mastery of our natural environment.

People who are closer to nature in their productive and reproductive work, those who are entirely estranged from it in their life experience, and those who do not have the same confidence and experience of ownership and control are unlikely to appreciate nature in the same way (Soper, 1995: 230)[iii]. These latter socio-economic groups, including peasants, agricultural and industrial workers, the lower middle class, and a range of marginalised peoples, constitute the majority of humankind – a majority whose experiences of, and attitudes towards, nature are generally not articulated through the dominant discourses of contemporary environmentalism.

Once we open the door to the question of the diversity of social and cultural experiences of nature and attitudes towards the natural environment amongst the impoverished and oppressed majority of humankind we are faced with an important tension. What is the relation between that diversity and the equally important reality of an increasingly common globalised experience of social, economic, and environmental injustice?[iv] Is there a way of bringing together the different local perspectives amongst workers, peasants, and marginalised people internationally into a grander narrative of common struggle around global environmental issues?

The post-structuralist emphasis on local identity is extremely valuable in its evocation and conceptualisation of the rich texture of lived social and environmental experience and

of people's expression of that experience. A range of post-structuralist, Marxist, and feminist theorists have sought to conceptualise this "situated knowledge" (Haraway in Harvey, 1992) in a number of ways. Guha and Martinez-Alier identify a flexible and diverse "vocabulary of protest" through which poor communities articulate their struggle for access to resources at the same time as challenging the oppressive and exploitative regimes that dominate their lives (Guha and Martinez-Alier, 1997: 13). Harvey highlights the "militant particularism" of community struggle that emanates from people's identification with their local lived experience (Harvey, 1996: 32). Cheney, in his postulation of the "bioregional narrative," emphasises the importance of a community's physical space in constructing "storied residence" and "historically positioned voices". Physical space, he argues, is also a cultural and moral space and provides the basis for a single lived reality of mindscape and landscape (Cheney, 1990: 4-9).

Peet and Watts offer the "environmental imaginary" as a way of conceptualising how people think and reason creatively on the basis of their material and cultural experiences of nature, environment, and place (Peet and Watts, 1996: 263). This "environmental imaginary" captures well the rich dialectical interaction between humans and their natural environment, and between human thought, practice, and reflection.

> Natural environments, visible still beneath layers of socialisation, landscapes which express human use of what remains primarily natural space, the places groups of people inhabit, are main sources in the creation of their meaning systems, aesthetics, and systems of thought. In particular the 'pictures' or images which form the first moments in the creation of thoughts, and which thought constantly employs as materialisations, are representations of specific natural and social environments...While environmental imaginaries stem from material and social practices in natural settings they also guide further practices...there is an active interaction between practice and idealisation in which imaginaries are

> constantly rebuilt and refigured, accumulate and change, during practical activities which imagination has previously framed (Peet and Watts, 1996: 267).

Much of this theorisation of situated knowledge (including the work of a number of those cited above) explores the dynamics of engagement between local identity and broader social, geographical, and political identities. But there are also arguments within post-modernist deconstructionism that emphasise the absoluteness of difference and are opposed to any form of universal narrative. As Cheney argues:

> Totalising, colonising discourse arises from concepts and theories being abstracted from their paradigm settings and applied elsewhere...the danger is that the theory when applied to a situation specified by the theory will serve not to articulate that new situation...but will serve as a mechanism of de facto repression of at least some of the experiential dimensions of the situation and lead to confusion and bafflement at the level of action and conscious attempts to understand one's own situation and what one is about (Cheney, 1989: 120).

This emphasis on difference can lead to a rejection of any possibility of socially shared values and collective purpose. At its most extreme this leaves us with "communities of one" (Frodeman, 1992: 315-8) and therefore with the paralysing politics of indifference (Quigley, 1992: 297).

Against that prospect, Cheney (drawing on post-structural feminism), argues for a "privileged discourse of the oppressed" – privileged because of its potential ability to challenge dominant discourses (Cheney, 1989: 117-8). Frodeman agrees with this in his assertion that post-modernism's "metaphysical insight is matched by a blindness to the political consequences" (Frodeman, 1992: 315). He argues that while post-modernism can justifiably claim that every conceptual scheme or discourse can be seen as an imposition from an ontological point of view, there is a need to select which differences

make a political difference and are important to mobilise around (Frodeman, 1992: 314-5). Haraway puts forward a similar challenge, arguing that it is not difference that matters, but *significant* difference.

> We risk lapsing into boundless difference and giving up on the confusing task of making partial, real connection. Some differences are playful, some are poles of world historical systems of domination. Epistemology is about knowing the difference (quoted in Harvey, 1992: 304).

While it is likely that within the broad left there would be agreement that it is the voices of the oppressed that must be given privilege, this does not resolve the question of which differences or identities are significant. Central to the post-modernist rejection of grand narratives and totalising discourses is its rejection of Marxism and the meaningfulness of class as an identity[v].

The post-modernist left has found it easier to erect and shoot down its own straw dog of a reductionist, deterministic, and oppressive concept of class, than to explore the class dimensions of the identities that it does accept – such as gender, ethnicity, race, religion, and sexuality. It certainly has not engaged with the creative and dynamic analytical use of the concept of class suggested by classical dialectical materialism. There is nothing inherently simplistic or restrictive about the concept of class and the allegation that it cannot accommodate the rich diversity of people's complex and varied identities suggests a too narrow economic use of the term. However people see themselves and whatever fragmentation contemporary capitalism has created, this does not deny the epistemological and political validity of class relations and class struggle. The value of the concept of class, as an abstraction from lived experience, is precisely that it can

embrace the dynamic tension between different levels of experience and identity – between all that is unique and particular and that which is shared and common.

Too great an emphasis on difference and marginality allows for little if any engagement with wider discourses as the means for shaping commonality and opposition (i.e. significant difference) in political struggle. Harvey argues that

> while postmodernism opens up a radical prospect by acknowledging the authenticity of other voices, postmodern thinking immediately shuts off those other voices from access to more universal sources of power by ghettoizing them within an opaque otherness...It thereby disempowers those voices (of women, ethnic and racial minorities, colonised peoples, the unemployed, youth etc.) in a world of lopsided power relations (Harvey, 1992: 302).

Alongside the importance and value of local identity in the experience of humanity, is the fact of a commonality of exploitation and oppression and therefore the possibility of forging significant collective identities. Although globalised capitalism encourages differentiation and competition along spatial, gender, ethnic, national, and religious lines by diminishing people's access to resources and through market relations, it also increasingly universalises the experiences and conditions facing humanity. For this reason it is important to explore the potential for "bringing together all the various highly differentiated and often local movements into some kind of commonality of purpose" (Harvey, 1998: 63).

If globalised capitalism is the cause of so much common human experience of suffering, then recognition of that commonality involves stepping out of an immediate situation and engaging with others. This shift is not without incredible tension and difficulty. It

involves an exposure to new knowledge, new concepts, new experiences, conflicting loyalties, and new levels of detachment from an immediate and familiar lived experience. Such a process is not just about adding identities and spaces together, but involves the expansion of identity and spatiality and the development of new conceptions of people's place in the world[vi]. But it is through an interaction of immediate local anger and struggle (a militant particularism) with a more detached apprehension of that same condition from a regional, national, or international perspective that provides the experience through which people define their commonality and difference (Harvey, 1996: 37). There is nothing predetermined or inevitable about the outcome of that kind of process, but its potential exists in the very activity and recognition of purposeful human struggle.

The post-modernist emphasis on local identity and situated knowledge has certainly enriched our conceptualisation of the complexity of social relations, experience, and identity. However, any celebration of difference and locality that does not seek to explore the reality of commonality acts as a constraint on the necessity and potential to develop a political perspective on global environmental problems. As Gare argues,

> the notion of a 'global environmental crisis' can be deconstructed and shown to serve the power interests of those who are attempting to mobilise people to address it. And, with their opposition to extra-texts beyond the text and to texts that would sum up other texts, to grand narratives which would put local narratives in perspective, (postmodernists) leave environmentalists no way to defend their belief that there is a global crisis or to work out what kind of response is required to meet it...They are bound by assumptions which make the idea of a global environmental crisis incomprehensible (Gare, 1995: 99).

During the last two decades there has emerged a new form of grassroots struggle and discourse around environmental issues, embracing a wide range of livelihood and social

justice concerns facing impoverished and oppressed people in various parts of the world. What characterises this movement is both its particularism and its commonality. While many of these struggles emerge spontaneously around specific local issues, the thrust of their purpose and message resonates with a universal striving for social and environmental justice. Without denying the diversity of these articulations of struggle, I now turn to explore the common features of this grassroots movement as the foundation for a potential grand narrative of radical environmentalism (Gare, 1995).

5.3 THE REDEFINITION OF ENVIRONMENTALISM BY CONTEMPORARY STRUGGLES FOR ENVIRONMENTAL JUSTICE

The ways in which exploited and oppressed people in different parts of the world have expressed their struggles around environmental issues have been conceptualised as an "environmentalism of the poor" and as the movement for "environmental justice" (Guha and Martinez-Alier, 1997; Sethi, 1993; Brown and Masterson, 1994; Di Chiro, 1995). I will discuss the features of these and suggest that they can both be usefully embraced within the perspective of a struggle for environmental justice, a perspective which offers significant and progressive challenges to the dominant discourses in environmentalism.

In their book *Varieties of Environmentalism*, Guha and Martinez-Alier (1997) distinguish between two kinds of environmentalism on a global scale – a First World environmentalism and an environmentalism of the poor – defined geo-politically in terms of a North/South divide (Guha and Martinez-Alier, 1997: 16-21). They characterise the former as a spiritual thirst emerging out of the degradation of nature in the developed and

affluent regions of the world. This First World (essentially middle class) green consciousness often claims that people in poor Third World countries lack environmental awareness due to their preoccupation with meeting basic needs, a struggle which is assumed to be generally hostile to environmental protection (Guha and Martinez-Alier, 1997: xiv).

Yet the basic livelihood struggles of impoverished people do not simply negate environmental concern, but rather approach environmental issues from a different perspective from that of conservationism. The environmentalism of the poor does not start from a detached concern for species and habitat protection for its own sake, but originates in people's defence against environmental change or destruction that negatively affects their way of life and their prospects for survival. This is primarily a struggle over access to, and control over, natural resources such as land, forests, and water - a struggle which often coincides with the need to defend an ecosystem against the negative impact of industrial or agricultural development (Guha and Martinez-Alier, 1997: xx-xxi).

A notable example of this coincidence of livelihood struggle and environmental protection was the resistance of peasants in the southern Indian state of Karnataka in the 1980's to the conversion of 30 000 acres of their subsistence farming lands into a eucalyptus plantation for a rayon multinational company. At the same time as threatening their source of livelihood, the development of an alien monoculture posed a serious threat

to soil fertility, water resources, and natural biodiversity (Guha and Martinez-Alier, 1997: 8-11).

The vocabulary of protest which emerges in environmental-livelihood struggles such as this, immediately binds together issues of nature and ecology with issues of social, economic, and political rights and justice (Guha and Martinez-Alier, 1997: 13-18; Sethi, 1993: 128). This integration of environmental, economic, social, and political issues, emerging out of experience rather than ideology, stands in marked contrast to the human/nature dualism out of which First World conservationism stems.

It is not altogether useful to see these contrasting perspectives on environmental issues simply in terms of a North/South divide. Within all nations, as well as internationally, differential access to economic resources, political rights, and social justice constitute conflictual social relations through which different classes mediate their experiences of their environment. It is more useful then to make use of O'Connor's conceptualisation of a middle class "ecologism of affluence" and the "ecology of survival" of the exploited and oppressed as an international phenomenon that takes different forms in different countries (O'Connor, 1997: 255).

As evidence of this is the emergence of environmental justice struggles, particularly in North America, as a radical challenge to conventional understandings of what constitutes the environment. These largely localised struggles do not start with a concern for unspoilt nature, but centre on the living and working conditions in working class communities.

The central thrust of environmental justice struggles in the United States has been the national Toxic Waste Movement, consisting of some 7 000 local groups in the early 1990's (Brown and Masterson, 1994: 270). Their campaigns led to the closure and clean-up of many hazardous waste sites close to residential areas, forced government and private companies to upgrade pollution management, and generated a more conscious and confident involvement of working class communities in shaping their urban environment (Brown and Masterson, 1994: 278).

In the 1980's a Los Angeles African-American community mobilised successfully to resist the construction of a solid-waste incinerator in their neighbourhood. This experience led to a range of other organised actions around housing, schools, drugs, and security – problems which the community argued were environmental issues (Di Chiro, 1995: 298). For this community, as for a whole network of localised groupings and actions that emerged during the 1980's, the environment starts with the places, relationships, and activities that define and sustain a community's way of life (Di Chiro, 1995: 300).

The elements that make up the vocabulary of protest of environmental struggle within urban working class communities are diverse. There are cultural factors such as the Latin American minority's conception of nature as a garden in which humans are active agents as opposed to the Anglo Saxon idea of nature as a dehumanised wilderness (Proctor, 1995: 287). The fact that many of the environmental justice activists are women (mothers who are primarily responsible for reproductive work in working class communities)

immediately humanises and domesticates urban environmental issues (Brown and Masterson, 1994: 274). The intimate connection between work, recreation, and domestic activity in urban working class communities encourages an integrated conception of the environment. Environmental issues are often strongly politicised, for example through the "environmental racism" that sees waste mainly being dumped on the doorsteps of black working class communities (Di Chiro, 1995: 303).

Many environmental non-governmental organisations have been slow to give support to environmental justice struggles because the environment for them is conceptualised as that nature that lies outside of areas of dense human settlement and activity. Waste issues are regarded by these green organisations as community health matters rather than strictly environmental concerns (Di Chiro, 1995: 298-299). Mistrust by working class communities of middle class environmentalism has been exacerbated by experiences of resettlement and job losses that working class communities have faced as a result of some conservation and urban clean-up initiatives (Di Chiro, 1995: 305).

In spite of the fact that the environmental struggles of land-based peasants and workers in underdeveloped countries of the South are mainly concerned with access to economic resources, and those of urban working class communities are more often around health and living conditions, the concept of environmental justice, insofar as it captures an integration of social, economic, political, and environmental issues, can well embrace both of these grassroots perspectives. Struggles for environmental justice, as de-centred, spontaneous, and parochial as they might be, contain enormous potential for the

progressive redefinition of environmentalism. This potential, I would argue, lies in the following broad philosophical and political characteristics of the environmental justice perspective.

Firstly, the perspective of environmental justice philosophically challenges the human/nature dualism of technocentric and ecocentric environmentalism. It does not take as its starting point a nature that is separate from human society, but begins with a humanised environment as its main concern. A perspective on the environment that starts with the place where people live and work, immediately integrates human affairs into our relation with nature. This is true of struggles around access to natural resources as well as struggles for a healthy living and working environment. Implicit in this integrated perspective is a recognition of humans as being both part-of-nature (insofar as environmental justice struggles express a dependence on our natural environment), and as apart-from-nature (insofar as these struggles are concerned to consciously re-shape how we relate socially to our natural environment).

Secondly, struggles for environmental justice advocate that environmental issues and problems are inseparable from political questions of poverty and social justice. A struggle for access to resources or against the location of a toxic waste dump is simultaneously a challenge to class, cultural, or racial discrimination. It immediately forces us to recognise that we make choices about our relation to our environment and that in a society based on class division those choices, and our very conceptualisation and appreciation of nature, reflect power relations. This perspective challenges the dominant view that nature is, or

should be, uncontaminated by politics. Philosophically, it challenges the notion that we can approach nature simply as an objective natural reality that is unaffected by cultural construction. The voice of environmental justice forces us to be philosophically self-critical about our conceptions of nature and exposes the class and political interests that we project onto our relations with our natural environment.

Thirdly, by putting their needs and interests in the forefront of their struggles around environmental issues, impoverished communities deconstruct any claim that we can speak on behalf of nature. The environmental justice asserts that human needs and values lie at the heart of our relation to our environment. This is not necessarily anthropocentric arrogance – it is a humanism that arises inevitably out of being human, and it has as much potential to develop a relation to nature that is ecologically sound as it does to abuse nature.

In the following chapter I examine the environmental justice struggles of the black majority in South Africa in order to highlight the potential of this emerging movement to challenge the traditional concerns of conservationism and the human/nature dualism that mainstream environmentalism embraces.

Notes to Chapter 5

[i] By using the category of 'middle class' I am referring loosely to a broad category of people that includes property owners, business people, salaried professional people, and intellectuals.

[ii] It is paradoxical that while middle class environmentalism assumes that everyone must appreciate nature aesthetically, one of its biggest fears is the "democratisation of the nature aesthetic." Middle class appreciation of nature regards itself as "genuine" – as opposed to the more vulgar mass enjoyment of commercialised nature (Soper, 1995: 239-243). This class prejudice regarding how nature should be viewed and appreciated inevitably blames the "less sensitive" part of humanity for degradation of the environment. What should not be forgotten however, is that it is for the most part the property owning class – with all its appreciation of and access to unspoilt nature – that defends the economic and social system which is responsible for most of our environmental abuse.

[iii] This is not to argue that these social layers do not have emotional and spiritual connection with nature. Rather, what is generally outside their experience, is the particular detached aesthetic sentiment that is part of middle class culture.

[iv] The concept of 'environmental injustice' is used to identify a pattern of discrimination in the way that environmental problems impact more often on working class, poor, and marginalised people than they do on affluent communities. A common example of this is the location of waste sites close to working class communities. (Brown and Masterson, 1994)

[v] See Chapter 1 for a discussion of the post-structuralist critique of Marxist essentialism.

[vi] Jameson (1984) conceptualises this process as "cognitive mapping". He argues that in order for people to deal with the insecurities and disorientation of globalisation we need "a pedagogical political culture which seeks to endow the individual subject with some new heightened sense of its place in the global system...(through which)... we may again begin to grasp our positioning as individual and collective subjects and regain a capacity to act and struggle which is at present neutralised by our spatial as well as our social confusion." (Jameson, 1984: 92)

CHAPTER 6

A CASE STUDY: THE EMERGENCE OF AN ENVIRONMENTAL JUSTICE MOVEMENT IN SOUTH AFRICA

6.1 INTRODUCTION

South Africa's human and natural landscape has been scarred by a long history of violence, abuse, and exploitation. The sharp political, social, and economic divisions along lines of class, race, and gender have nurtured extremely different and conflictual life experiences[i]. Mediated through these inequalities, people's experiences of nature and their attitudes towards the environment are thus vastly different. In this chapter I begin by outlining the very different experiences that different classes, largely racially defined, have historically had of the natural environment in South Africa. These different experiences have given rise to contrasting and conflicting environmental perspectives and politics. In the second half of the chapter I explore the emergence of the environmental justice movement in South Africa and the challenge that it poses to mainstream environmentalism.

6.2 CLASS, RACE, AND THE ENVIRONMENT IN SOUTH AFRICA

At the heart of the different class and cultural experiences of the natural environment in South Africa lies the historical struggle for control and access to resources (Mittelman, 1998: 854). Through the process of colonial conquest, capitalist development, and apartheid oppression, the affluent, and largely white ruling class developed a confident control over natural resources and, accompanying this, a tradition of nature conservation and environmental management. For the majority of black rural and urban working

people, their relation to their environment has been dominated by dispossession and a basic livelihood struggle for access to resources – a struggle which, for the most part, has come into conflict with conservationist concerns.

A central feature of colonial conquest, the establishment of white settler domination, and the early development of capitalism was a struggle over land (Khan, 1990a: 14). Land dispossession, the introduction of private land ownership, the development of commercial agriculture, the forcing of people into reserves through the 1913 and 1936 Land Acts, and the development of the migrant labour system dramatically transformed the indigenous peoples' social relations and their relation to the natural environment (Khan, 1990a: 16).

Apartheid legislation served to compound the alienation introduced by land dispossession and the coercion of people into wage labour. The pass system, the Group Areas Act, and the Separate Amenities Act restricted the movement of blacks and their ability to identify with their environment. As Sachs eloquently states, "Ours is one of the most divided countries in the world, criss-crossed with legal, physical and psychological dongas. Who today can say that this, the veld, the mountains, the rivers, the seashore, the sky, and the sunsets, all this is my country" (Sachs, 1990: 2). Within the urban environment the black majority of the population have historically been forced to live in townships on the edge of cities and industrial areas where living conditions are physically and spiritually oppressive (Khan, 1990: 16). This lived experience of poverty, inequality, powerlessness, and material and spiritual dispossession has produced and reproduced an extreme alienation of people from any sense of vital connection with their natural environment.

The history of apartheid-capitalism in South Africa has not only served to alienate people from nature but has also nurtured a strong hostility amongst the oppressed majority towards mainstream environmentalism. Blacks have historically resisted the implementation of many conservation programmes, tied as these often were to attacks on their livelihood. Homeland betterment schemes, fencing, culling, forced removal, restrictions on hunting and gathering, and the proclamation of reserves threatened to disrupt and transform people's relation to their environment (Khan, 1989: 4).

The government's betterment schemes of the early 1940's, which sought to transform traditional settlement patterns and farming practices in an effort to combat soil erosion in the reserves, were met with organised resistance (Beinhart and Coates, 1995: 99). This conservation effort ignored the fact that overgrazing and overcultivation were the result of the forced concentration of people on 13% of the land (Khan, 1990a: 17).

A central issue in the Pondoland rebellion of 1960 was the apartheid government's attempt to protect coastal forests for aesthetic and ecological reasons. These were areas where people had long gathered wood and medicinal plants and hunted small animals (Beinhart and Coates, 1995: 102). This was just one of many experiences of people being pushed off their land and excluded from an environment they had long interacted with, in the interests of wildlife conservation. While their hunting practices were redefined as poaching, rural black people were left to watch white farmers freely pursuing wild animals on their privately owned land (Beinhart and Coates, 1995: 84).

Resistance to these conservation efforts has fed the white ruling class notion that blacks are responsible for environmental degradation and for thwarting the conservation cause and that they lack any environmental awareness (Khan, 1989: 3-4). However, black communities have experienced conservationism as a feature of the power and privilege of a racist white ruling class and as integral to the development and application of segregation and apartheid policies (Khan, 1989: 4). Environmentalism, as it has been defined by middle class white interests in South Africa, has either been regarded with indifference by the majority of the black population or it is seen to be an explicit tool of oppression (Khan, 1989: 3; McDonald, 1998: 2). Knill argues that this says less about popular environmental awareness than it does about the narrow way in which middle class interests have defined the environment.

> Environmentalism per-se has been largely invented by middle class capital to defend conservationist aims and at the same time deliberately excludes the worker, poor, and indigenous population component from the argument (Knill in EJNF, 1995: 21).

It is important then to explore the fact that the daily struggles of the impoverished working class and marginalised communities have been 'environmental' in a broader sense than that suggested by the traditional conservationist perspective. In the next section of this chapter I argue that the grassroots struggle for environmental justice offers the prospect for a progressive redefinition of environmentalism in South Africa.

6.3 THE STRUGGLE FOR ENVIRONMENTAL JUSTICE AS A CHALLENGE TO ENVIRONMENTALISM IN SOUTH AFRICA

Within the last decade there have emerged three connected developments that have challenged the traditional conservationism of environmental politics in South Africa. The first reflects the international shift within mainstream environmentalism away from resource conservation and towards environmental management. This shift arises partly out of the recognition of ecological complexity and the importance of managing habitats and ecosystems rather than focusing on species protection. This has prompted greater effort towards managing ecological systems beyond formal reserve areas so that environmental protection more and more has to integrate (rather than exclude) the dynamic of human settlement and development[ii]. An example of this can be seen in the growing co-operation between farmers and environmentalists in ensuring a balance between the utilisation and protection of a habitat or ecosystem (Beinhart and Coates, 1995: 82-6).

The shift towards a more flexible environmental management follows precedents set in Britain and the United States of including human settlements in protected areas and involving local people in environmental management projects. Probably the best example of this in South Africa to date is the involvement of local farmers in the Richtersveld national park (Beinhart and Coates, 1995: 88-90)[iii]. Reflecting this shifts away from narrow conservationism, Khan argues that

> the South African environmental movement... has shown a significant move away from the narrowly-based, wildlife centred, punitive approach of the past, towards the acceptance of a more holistic, socially responsive philosophy... and

> undeniably a more people-centred, democratic and socially just approach to environmental issues, is taking root in South Africa (Khan, 1992: 95-6).

The second challenge to traditional conservationism is political. Over the last decade, and particularly since the transition to democracy in South Africa, there has been an increasing politicisation of environmental issues. Political parties, trade unions, community organisations, and non-governmental organisations, many of which have long ignored environmental issues, have increasingly integrated these into their concerns and activities (McDonald, 1998: 2). This is reflected in the new level of recognition that has been given to environmental rights in the new constitution, and to the development of progressive environmental legislation and policy over the last five years. This growing political recognition of environmental issues has at the same time reflected a shift from the exclusionary conservationist discourse to "one in which the definition of the environment has expanded to include the working and living conditions of black South Africans" (McDonald, 1998: 1).

There are various international and national factors that have brought about this humanisation and politicisation of environmental issues within the organised environmental movement and within the formal political life of South Africa. Probably the single most important factor has been the groundswell of grassroots struggle against social and environmental injustice in South Africa over the last decade.

Working class blacks in both urban and rural areas have long been forced to live and work in dangerous and unhealthy environments with little access to social and natural

resources. Women, as primary caretakers most responsible for reproductive work, have had to bear the brunt of this environmental injustice (Moore and Rollet, 1998). The environmental problems facing workers and poor communities include unhealthy and unsafe working conditions, unemployment, low wages, lack of shelter, overcrowding, little access to clean water or adequate sanitation, exposure to industrial pollution and hazardous materials such as asbestos, inadequate municipal and social services, polluting fuel, soil erosion, and poor urban environments. A strong feature of environmental injustice in South Africa is the location of hazardous waste sites close to black working class residential areas such as at Arlington, Ibhayi, and Aloes in the Eastern Cape (Moore and Rollet, 1998).

In the late 1980's and early 1990's poor communities increasingly began to organise and speak out against the environmental problems affecting them. In 1989 Mafefe villagers in the Northern Province protested against their exposure to dust from blue asbestos dumps; in 1990 inhabitants of the township of Zamdela, downwind from Sasol's oil-from-coal plant, demonstrated against the soot, carbon dioxide, and nitric gases that polluted their township; and in that same year residents of Azaadville near Krugersdorp resisted the location of a hazardous waste site next to where they lived (Koch, 1991: 21).

Because workers are in the frontline of environmental abuse facing particular hazards in their work situations, unions have played an important role in articulating struggles for health and safety. In the early 1990's these workplace struggles were increasingly linked to broader environmental issues (McDonald, 1994: 73). The poisoning of workers and of

a nearby community in 1989 by the Thor company at its mercury-processing plant in Kwazulu-Natal, led to the formation of a "rainbow alliance" of trade unions, community organisations, and environmental groups (Cock, 1991: 10). Similarly the Food and Allied Workers Union and the Dolphin Action and Protection Group embarked on joint action in 1990 against the conditions facing workers on Taiwanese trawlers (Koch, 1991: 21). Earthlife Africa, as a middle class environmental group which later led the formation of the Environmental Justice Networking Forum, became particularly active in alliance with trade unions such as the Chemical Workers Industrial Union and the South African Chemical Workers Union in fighting toxic waste issues (Khan, 1991: 52).

These grassroots struggles against dangerous, unhealthy, and alienating working and living conditions, and the organisational development that grew out of them, led to the establishment in the early 1990's of the Environmental Justice Networking Forum (EJNF) as a national alliance of over 500 non-governmental, labour, and community-based organisations. It declared that its purpose is to seek to "transform environmental governance in South Africa so that it becomes participatory, people-centred, socially-just and ecologically-sustainable" by supporting the efforts of its member organisations "to strengthen and support action taken by poor communities and workers to address the environmental injustices threatening their health and well-being" (EJNF, 1997: 32).

The activities of the EJNF have included organising and supporting community actions around environmental justice issues, particularly on the issue of waste in communities such as Ikwezi, Dimbaza, Umlazi, Chloorkop, Aloes, and Tlhabane; analysing and

critiquing developing legislation and government policy and playing an active lobbying role in parliament; spearheading large campaigns such as that against Thor Chemicals and against the expansion of the oil refinery in Durban South; connecting up with international environmental campaigns such as that against the global toxic waste trade; the development and implementation of environmental education at a grassroots level; and research and advocacy work around resource issues (such as water, forestry, and mining), desertification, militarisation, and privatisation (EJNF, 1996-9). In early 1998 the EJNF facilitated the People, Poverty and Environment hearings which exposed the severe environmental injustices facing workers and poor communities across South Africa (EJNF, 1998).

Central to these emerging environmental justice struggles and to their organised expression is the recognition that environmental issues in South Africa are deeply political in that they are defined by access to power and resources. By integrating the struggle against poverty and social injustice with the struggle against environmental abuse, the environmental justice movement offers a humanised approach to nature that challenges the alienated dualism of mainstream environmentalism. Out of this philosophical holism the environmental justice perspective takes as its political starting point the need to transform human social, economic, and political relations as the basis upon which to construct a more ecologically sound relation to nature. As the EJNF argues,

> Environmental justice is about social transformation directed towards meeting basic human needs and enhancing our quality of life – economic quality, health care, housing, human rights, environmental protection, and democracy. In linking environmental and social justice issues the environmental justice approach seeks

> to challenge the abuse of power which results in poor people having to suffer the effects of environmental damage caused by the greed of others... In recognising that environmental damage has the greatest impact upon poor people, EJNF seeks the ensure the right of those most affected to participate at all levels of environmental decision-making (EJNF, 1996-9).

The struggle for environmental justice in South Africa, as in many other countries, offers the potential to redefine what we understand by the environment and to broaden and humanise what is embraced within environmental politics. It opens up the prospect of relating to the environment not just as unspoilt nature in managed wilderness areas, but as the conditions in which people live and work (EJNF, 1995: 9). The environmental ethic in South Africa needs to be broadened out from the narrow conservationist interests that it has historically represented, so that it can embrace "the greening of the lives of the millions who cut the grass and water the trees of others while they live in the sand themselves" (Sachs, 1990: 3).

Having explored concretely the emergence of environmental justice struggles internationally and in South Africa and having highlighted the significance of their challenge to mainstream environmentalism, I now turn to reflect theoretically on the ethics and political potential contained within grassroots environmental struggles.

Notes to Chapter 6

---

[i] While it is important to explore different gender experiences (especially within the urban and rural working class) of the environment in South Africa and the different perspectives that these give rise to, this will not be done in any systematic way in this chapter.

[ii] This approach is well illustrated by the United Nations concept of the 'biosphere' which has been applied in the Kogelberg coastal area of the South Western Cape. A biosphere outlines a wide area of ecological importance within which different degrees of development, settlement, and conservation are accommodated.

[iii] The blossoming of eco-tourism is part of this development towards a more humanised and accessible approach to conservation, although I would argue that this commodification of indigenous culture and its environmental interaction offers new prospects for market manipulation and alienation.

CHAPTER 7

THE PROGRESSIVE POTENTIAL OF THE ENVIRONMENTAL JUSTICE PERSPECTIVE

7.1 INTRODUCTION

In spite of the progressive developments within the environmental movement in South Africa there is a very low level of active popular awareness of the need to change our attitude and behaviour towards our natural environment. Research has shown that this is true in many parts of the world (Khan, 1990b: 36). The lack of a broad environmental awareness is particularly evident in working class and poor communities whose interaction with nature is often uninformed and abusive. How then can the impoverished and oppressed majority of humanity, with its sporadic and spontaneous struggle for environmental justice, be regarded as a progressive force in the struggle to transform our human relations with nature?

To approach this question requires an elaboration of the dialectical themes offered by Marx's perspective on human-nature relations and developed through my critique of the dominant philosophical and political perspectives of mainstream environmentalism. I do this in the first section of this final chapter. What I put forward as propositions for an environmental justice ethic provides the basis on which to identify more specifically the potential of the environmental justice perspective as a force for change and the challenges facing that potential.

7.2 PROPOSITIONS FOR AN ENVIRONMENTAL JUSTICE ETHIC

Out of my exploration of what Marxism has to offer to environmental philosophy regarding the relation between humans and nature and through my critique of the alienated dualism expressed by both technocentric and ecocentric environmentalism, I suggest the following theoretical propositions through which to develop a radical socio-environmental perspective:[i]

- Humans are both part-of-nature and apart-from-nature. This is an essential unalterable fact of existence. It constitutes the contradictory unity that lies at the heart of the human physical and spiritual condition. The dynamic tension between human dependence on nature and relative autonomy from nature is a thread that runs through all of human and environmental history. It is a thread of mutual determination, whereby human history is enabled and constrained by ecological processes and in turn impacts on nature. For example, humans rely on ecological processes in order to consume plant food matter essential to our existence. We have intervened in these processes through diverse methods of cultivation in order to affect the quantity and quality of what nature offers. In doing so our interventions impact on the terrestrial, atmospheric, and hydrological processes which make agriculture possible.

- Humans, in contrast to other species, have a relative autonomy from the ecological systems on which they depend. This relative autonomy is the human capacity to stand separately from nature and transform it to meet socially defined needs. It is the expression of this capacity that has given various historical forms to the essential relation between humans and nature – i.e. to the different ways in which human society has organised itself in relation to nature in order to reproduce itself. It is through our exercise of this capacity that we have alienated ourselves from nature and created life-threatening problems in our natural environment, and it is through this capacity that we can develop a more ecologically-sound relationship with nature.

- The framework that nature offers in our engagement with our environment – both in terms of possibilities and constraints – constitutes nature as an objective reality outside of our perception and engagement with it. Through that engagement however, we develop cultural and social constructs of nature that are imbued with human values. We depict nature variously as machine, organism, commodity, savage, noble, as a moral authority, a source of spiritual inspiration, or as a collection of useful resources. The challenge facing humanity, in its effort to end its abuse of its natural environment, is to shape the nature that we want on the basis of ecological wisdom. Such ecological wisdom must be self-critical in recognising that the nature we engage with is not simply an objective reality that reveals its truth to scientific enquiry, but that that truth all the time embraces our ideas of what we want nature to be. This construction of nature is not necessarily a problem. It is inevitable as an expression of our relative autonomy from nature – it is how we express our humanity. The challenge that we face is to construct a humanist ethics that are in accord with the ecological processes offered by nature.

- Ecology cannot organically prescribe to human society specific forms of social organisation as deep ecology would have it. Our relative autonomy from nature requires far more conscious construction of our social relations[ii]. But ecological premises and principles do have metaphysical implications for human society. By virtue of the fact that nature embraces and implies human existence, nature's processes have implications for how we understand ourselves individually and collectively (Callicot, 1989: 51). This is the basis on which to develop ecological wisdom – in terms of seeking to relate to nature in a way that harmonises with natural ecological processes (Wei-Ming, 1989: 72).[iii] This constitutes the foundation on which to construct what Marx identified as our need to engage intimately with nature physically and spiritually as an expression of our human nature and potential (Parsons, 1977: 39), and what Chinese philosophy argues is the conscious connection with nature that makes possible our full human growth and refinement (Wei-Ming, 1989: 76).

- Since our relation to nature emerges out of, and is shaped by, our social organisation (economic, political, and social relations), we can only change how we relate to our environment materially and spiritually by changing how we organise ourselves socially. To develop an ecologically-sound relation to nature then, requires political, social, and economic transformation. I have argued that a progressive environmentalism that seeks to go beyond technocentric end-of-pipe solutions cannot take the status quo of contemporary capitalism as given. The struggle against our contemporary environmental crisis must at the same time be an explicitly political, economic, and social struggle for transformation of human society.

- I have argued that to see this transformation as taking place through an "organic maturation of consciousness", as deep ecology envisages, is idealistic. Part of our human nature is that we are shapers of our own history and we need to take conscious responsibility for changing our relation with nature. This is not just about individuals changing their attitudes within existing social relations. It is about seeking to transform the social relations that define our attitudes and behaviour. This requires a collective political and social effort that embraces the necessity for developing ecological wisdom.

- These theoretical propositions can only have real meaning if they connect with concrete experiences of struggle and engagement within human society about how we relate to nature. The connection, I argue lies in the challenge posed by the diverse contemporary struggles for environmental justice to capitalist social relations and to the dominant discourses of environmentalism. At the centre of their potential lies their redefinition of the environment and of environmentalism. In contrast to the human/nature dualism that the alienated perspectives of mainstream environmentalism express, the struggle for environmental justice approaches the environment as a human experience that holistically integrates our relationship with nature into social relations. As Di Chiro argues:

> The environmental justice movement, in challenging mainstream environmentalism argues that an effective movement must integrate, not dichotomise, the histories and relationships of people and their natural

> environments.. (It offers) a framework that insists on making linkages among the multiple aspects of the ecosystem, including the biophysical environment, the built environment, and the social environment... Ideas of nature, for environmental justice groups, are therefore tied closely to ideas of community, history, ethnic identity, and cultural survival, which include relationships to the land that express particular ways of life... Communities and environments are therefore conjoined and must be understood as being mutually constitutive (Di Chiro, 1995: 318).

These propositions, I argue, establish a thread between the philosophical perspective offered by dialectical materialism on human-nature relations and the holistic perspective on social and environmental change that is actually and potentially offered by struggles for environmental justice across the world. However, it is important to identify more specifically the objective and subjective conditions in working class experience out of which the general potential of the environmental justice perspective can take shape.

7.3 THE POTENTIAL OF THE ENVIRONMENTAL JUSTICE PERSPECTIVE

One of the most important propositions of dialectical materialism is that any reality expresses a process that contains contradictory elements – elements that exist in a dynamic and therefore potentially changing relationship with one another (Harvey, 1996: 56). Alongside the extreme alienation facing working class and oppressed people in their relationship to their environment, and to nature as a whole, lies a progressive potential that does not exist amongst the more environmentally-aware middle class.

Whether and how that potential is expressed and realised as the possibility for transforming our human social relations and our relation to our environment, is determined by our conscious collective exploration of possibilities. This is a question of

purposeful action for change – through a reflexive process of organisation, education, and mobilisation – that connects with and seeks to affect the existing reality of struggle, need, hope, and despair that fills the lives of the majority of humanity. In order to guide that process it is important to identify the dialectical points of tension within working class environmental experience – i.e. the tension between a lived experience of alienation on the one hand, and the creative potential to challenge that alienation on the other. In this regard I suggest the following.

- In his research among urban African-Americans, Carl Anthony uses "eco-psychology" to explore how people's relation to their environment is central to the formation of their identity (Di Chiro, 1995: 313). He argues that their life experience embraces a strong sense of alienation, of being "detached from any sense of place", and that living in impoverished polluted environments breeds a disabling sense of despair and hopelessness (Di Chiro, 1995: 313). Anthony argues however, that *it is precisely this same alienating experience, as a collective experience, that often works to stimulate and mobilise people into a community activism in order to try and change their situation* (Di Chiro, 1995: 314).

- Connected to this potential is the fact that *for working class people immediate environmental problems are issues of urgent need* – often questions of very basic survival and well being. The black working class majority in South Africa for example, have historically experienced an extremely poor quality of life. Their reality gives them an enormous capacity to struggle for better living and working conditions. The direct link that exists between impoverished people and their environment does not exist in the same urgent conscious way for the middle and affluent classes (Cock, 1991; Crompton and Erwin, 1991). As Sachs argues:

  > Questions of the environment enter far more pressingly into the lives of the poor than they do into the lives of the rich. The rich take sanitation and domestic energy for granted... the poor have to dispose of their own waste. Water is

frequently inaccessible, often unclean. They lack latrines. They have to collect firewood for heat. They are the main victims of drought and flood, of lightening and tornadoes (Sachs, 1990: 4).

- *Workers have a particular role to play in expressing and articulating the intensity of their environmental experience*. It is at the "conversion points" of production in industry and in agriculture and in providing basic services to society, that our human engagement with nature is most significant and immediate (Crompton and Erwin, 1991: 80). This is where the issues of health, safety, and environmental impact are most clearly focused and offer clear opportunities for collective action to transform human and ecological abuse.

- The distance that is commonly identified between the basic survival needs and priorities of impoverished people and their potential to develop a broader environmental awareness, is not as great as is often assumed. To understand this, we must approach environmental issues not from the starting point of "green issues" but from the "brown issues" that impact on people's quality of life at work and at home – water provision, sanitation, housing, open spaces, and pollution (McDonald, 1994: 73). *It is through these immediate brown issues that more distant green issues can be opened up and confronted.*

- *The experience of struggle around immediate environmental issues has the potential to expand itself through its own process of engagement and learning as it challenges the status quo and in doing so suggests new broader possibilities of struggle.* The struggle of workers at the Thor chemical plant in Kwazulu-Natal against the impact on their health of exposure to mercury waste, drew workers and community members into a broader campaign against the international trade in toxic waste (Crompton and Erwin, 1991: 83). What began as an immediate survival issue grew, through an expansive politicising experience, into a wider struggle for social justice. As Peet and Watts argue,

  environmental crises do not project truth into consciousness, on the basis of which people act in appropriate ways. Rather, multiple realisations about all levels of

> environmental problems are one main source stimulating a series of creative reactions which may or may not emerge as fully formed social movements...as well as being practical struggles over livelihood and survival, they contest the 'truths', imaginations, and discourses through which people think, speak about, and experience systems of livelihood (Peet and Watts, 1996: 37).

- The struggles of working class communities around living and working conditions take place within a broader lived experience of need, hope, and struggle. Struggle is a process which all the time draws on the past and looks to the future. The black majority in South Africa has a long tradition of struggle which at times embraced a radical vision for the future. *It is that capacity to challenge the status quo which is unique to the dispossessed and that enables them to give full radical expression to their need for change.* However environmentally-aware the affluent sections of society are, their capacity to envisage new social relations and collective ways of relating to our environment will always be compromised by their defence of their material interest in maintaining existing class relations and inequalities.

It is with these progressive possibilities, contained within the social and environmental experiences of working class and poor communities, that organisational and educational praxis[iv] needs to connect in order to facilitate the development of environmental justice struggles. Probably the biggest challenge facing that development is for local struggles to transcend their specific and immediate concerns. It is to a discussion of that challenge that I now turn.

7.4 THE CHALLENGES FACING ENVIRONMENTAL JUSTICE STRUGGLES

The extent to which local struggles for environmental justice can impact at any regional, national, or global level, will be determined by their ability to transform themselves from their militant particularism into a more universal project. The emergence of the Environmental Justice Movement in South Africa as a co-ordinating structure and instrument of advocacy is an important development in this regard. In the United States the extensive experience of struggle against the location of waste dumps near working class and minority communities has shifted people's protest from "not-in-my-backyard" to "not-in-anybody's-backyard", giving evidence of a expanding environmental awareness and social concern (Harvey, 1996: 391). There are three connected components to this challenge to lift environmental justice struggles out of their immediacy.

Firstly, struggles for environmental justice need to find a way of transforming their spontaneous parochial nature into something more universal and enduring. Earlier in this chapter I argued the need for the development of a grand narrative and collective project that can challenge global capitalism and global environmental problems.

Secondly, it is not automatic that any defence of livelihood is environmentally sound. Environmental justice struggles need to engage with contemporary scientific and philosophical understandings that promote ecological wisdom. The fact that what is good for nature in a specific instance may not be good for a human community is a real tension that must be embraced within the struggle for environmental justice. That tension

however, can only effectively be resolved when the cause of environmental protection is not knitted together with the political and economic interests of an oppressive minority. It is also important that the experience, knowledge, and concerns of an immediate livelihood struggle engage with contemporary scientific and philosophical understandings that promote ecological wisdom. This is the dialogue that is needed between human interests and environmental sensitivity. As Haila and Levins argue:

> The solutions of the complex problems of society and nature depend on a combination of the intimate knowledge people have from their own experience and the scientific knowledge that requires some distance from the particular. The heterogeneity of nature demands sensitivity to the particular; and its global interconnectedness requires understanding of the whole (Haila and Levins, 1992: 252).

The third challenge facing struggles for environmental justice is to broaden their perspective on the environment. What is progressive is the fact that they take humans-in-the-environment as a starting point and their assertion that urban life is as much environmental as wilderness. What is uncertain however, is the perspective that any localised environmental justice struggle might have on the nature that lies beyond its immediate experience. The fact that an urban working class community might protest against the location of a waste site on its doorstep does not automatically suggest any concern for wider environmental problems.

In addressing these challenges what is needed is a dialectical engagement between the local and the universal, between difference and commonality, and between immediate experience and a broader philosophy and science, as the basis for a project that seeks to transform our human social relations and thereby our social relation to nature. My

argument in this thesis is that it is only through establishing economic and social justice and equality within human society that we can develop an ecologically respectful relation to nature.

This perspective is based on a recognition that inasmuch as we are natural-beings and dependent on nature, so nature is affected and shaped by our social relations. As long as our social relations are based on inequality and socio-economic injustice we will continue to abuse nature. As long as we remain alienated from one another socially, we will be alienated from the full potential of our human nature and therefore from nature as well. We cannot transform our relation to nature on the basis of capitalist economic and social relations as technocentrism would have it. Neither can we look to nature as a moral authority to correct our social defects as ecocentrism argues. Only by overcoming the human/nature dualism that pervades so much of contemporary environmental thought, can we turn our intimate relationship with nature into a creative dynamic of mutual determination that embraces human fulfilment and ecological wisdom.

Notes to Chapter 7

[i] This is an elaboration of the dialectical themes outlined in Chapter 2.1

[ii] Deep ecology argues the need for small scale, non-hierarchical, harmonious communities that are bioregionally oriented and ecologically sound (Zimmerman, 1994:6). There is nothing wrong with this as a normative vision. A problem arises however in their assumption that such an eventuality can arise organically out of our present conflictual, exploitative, oppressive, and environmentally destructive social relations. Those social relations emerged historically through conscious political struggle and they need to be challenged through an equally self-conscious human process. The path to harmony is therefore full of conflict, as in any transformation or growth process.

[iii] The argument from Chinese philosophy that harmony is a defining characteristic of the cosmos is not a romantic assertion about nature or human society, nor is it a prescription against conflict and violence. It is rather a description of nature's processes – that nature tends towards union rather than disunion, integration rather than disintegration, synthesis rather than separation, and that these growth processes embrace conflict and tension (Wei-Ming, 1989: 72).

[iv] Praxis is activity and practice in the world, that embraces reflection on that experience as the basis for new activity and learning (Allman, 1994).

CONCLUSION

It was late morning when we met for breakfast at a diner on the eastern edge of the Rocky Mountains, just an hour's drive from Boulder, Colorado. The winter air was dry and thin and the sun peered down over the Ponderosa pines and shone through the leafless silver-trunked aspens. It bounced brightly off the gleaming sides of pick-up trucks on the roadside. I asked Dennis how his work was going.

> I'm out of work. I walked off the job after Jeff and I had a fight. I was so angry it was like I was outside of myself – y'know how it can be. What happened was we were building these houses see, out of recycled materials, like the walls made of old tyres that we put around a floor of concrete. So Jeff admires his work and says it is *pristine* nature. But I say 'How can it be pristine with all this concrete we're throwing?' I mean we've been throwing concrete all over the world – how can we call it pristine? So we got into this big fight, because Jeff, he takes concrete kinda personal.

We got to talking about how people see nature differently, how it's often a cultural or class thing, and how women and men, doing different work, might connect in different ways to their environment. We traced the deep lines of violence and abuse that scar our troubled lands and how the indigenous people of North America and South Africa were swept aside by settler frontier expansion. We agreed that civilisation - the taming of the 'wilderness' and the 'savage' – involved the conquest of one concept of nature over another. We spoke about how the collective use of the land and other natural resources had been displaced by private ownership and its partner, dispossession. We discussed how the notion of private property – things to be owned, sold, bought, utilised or managed - framed our picture of nature today, and was the root of most of our contemporary environmental problems.

We also spoke about how things could be different. We were children of the 1960's who had not given up our dreams of a better world through the thirty-year arc into the world of neo-liberalism. We shook hands warmly over the remains of our breakfast and aknowledged that it is good to remember that the private ownership of nature is a social construct, a cultural curiosity, that, for the greatest part of human history, has been an inconceivable notion.

As Barbara Kingsolver asserts:

> Ownership is an entirely human construct. At some point people got along without it... to own land, plants, other animals, more stuff than we need – that is the peculiar product of a modern imagination (Kingsolver, 1995: 26).

And, lest we think that history has run its course, let us note the hopeful words of the 19th century Marxist philosopher and activist, Friederich Engels:

> The time which has passed since civilisation began is but a fragment of the past duration of human existence; and but a fragment of the ages yet to come...A mere property career is not the final destiny of humankind (Engels, quoted in Kingsolver, 1995: 33).

The development of private property relations as a way of relating to our environment has turned nature into a commodity, and with the estrangement that this implies, has reduced human beings to a shadow of their full potential. Our reduction of nature to a utilitarian means is not only an abuse of other forms of life but is also an expression of our own impoverishment. We need to cultivate an ethics, suggested both by the Taoist notion of "continuity of being" (Wei-Ming, 1989: 67) and by Marx's characterisation of nature as

"man's inorganic body" (McLellan, 1977: 81), that sees our natural environment as an extension of ourselves and that appreciates that it is only through that continuum that our human potential finds its full expression.

I have argued in this thesis that our conception of nature is a profoundly human construction loaded with all kinds of cultural, class, and gender values. This is not to deny the objective reality of the flux of life-processes that surround us, but rather to challenge the assumption that the ways in which we represent that reality are natural and uncomplicated. Marx's dialectical materialism offers us a way of critically understanding human knowledge as a dynamic approximation of truth, rolling in the cusp between objective reality and our subjective appreciation of it.

If we consciously embrace our human ability to give shape to our relation to nature as a natural expression of the life force (or chi[i]) that manifests itself through human nature, then we can use that capacity to work in sympathy with ecological processes rather than against them. Just as we have used our human skills to self-consciously stand apart from our environment in order to commodify nature and alienate ourselves from it, so we can act to develop a more integrated and ecologically-sound relation to our natural environment. This requires that we develop a vision that integrates collective human needs, aspirations, and values with an ecological wisdom.

Marx understood the human species to be both part-of-nature and apart-from-nature. He argued that the tension between these two connected and contradictory aspects of human

nature is a dynamic one that expresses itself differently at different times in history. Marx's dialectical materialism offers us a way of understanding human-nature relations as a process of change. This allows us to regard our present estrangement from nature as an historical and social construction and helps us to envisage a future beyond that alienated condition. In order to do this we need to explore the dynamics within human society that offer the potential for change.

I have argued that it is in the lived experience of the dispossessed, impoverished, and oppressed majority of humankind that the potential for constructing a new, more humanised nature and naturalised humanity lies. This will not simply emerge spontaneously out of grassroots struggles for environmental justice but requires that a broader ethical, political, social, and ecological culture and vision find connection with those struggles. To realise our place ecologically - to develop a truly human sense of nature and a natural sense of humankind - requires a conscious political, social, and environmental struggle against our contemporary alienation.

Notes to Conclusion

[i] Chi is understood by Chinese wisdom to be the material-spiritual life force energy that permeates all living things and processes. Humans, as the most sentient beings, are seen to express chi in its highest form (Wie-Ming, 1989: 75).

REFERENCE APPENDIX

Acamporah R (1994) "Using and Abusing Nietzsche for Environmental Ethics." *Environmental Ethics,* 16 (Summer) 187-194.

Allman P (1994) "Paulo Friere's Contributions to Radical Adult Education." *Studies in the Education of Adults,* 26 (2) 144-161.

Avineri S (1968) *The Social and Political Thought of Karl Marx.* London: Cambridge University Press.

Barbier E (1987) "The Concept of Sustainable Development." *Environmental Conservation,* 13 (3) 101-110.

Barbour M (1995) "Ecological Fragmentation in the Fifties." Cronon W (ed) *Uncommon ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 233-255.

Barbour, T (1992) "Internalising Externalities: An Attempt to Address Social Costs." Source unknown.

Barrett W (ed) (1996) *Zen Buddhism: Selected Writings of D Suzuki.* New York: Image books.

Beinhart W and Coates P (1995) *Environment and History. The Taming of Nature in the United States of America and South Africa.* London: Routledge.

Benton T (1979) "Natural Science and Cultural struggle: Engels on Philosophy and the Natural Sciences." Mepham J and Rubens D (eds) *Issues in Marxist Philosophy Vol 2.* London: Harvester Press, 122-137.

Benton T (1989) "Marxism and Natural Limits: An Ecological Critique and Reconstruction." Redclift M and Woodgate G (eds) *The Sociology of the Environment Vol 1.* Aldershot: Edward Elgar Publishing, 557-593.

Benton T (1991) "Biology and Social Science: Why the return of the repressed should be given a (cautious) welcome." *Sociology,* 25 (1) 1-29.

Benton T (1992) "Ecology, Socialism and the Mastery of Nature: A Reply to Reiner Grundmann." *New Left Review,* 194 55-74.

Benton T (1993) *Natural Relations: Ecology, Animal Rights and Social Justice.* London: Verso.

Benton T (ed) (1996) *The Greening of Marxism (Democracy and Ecology)*. London: Guilford Press.

Brown P and Masterson-Allen S (1994) "The Toxic Waste Movement: A New Type of Activism." *Society and Natural Resources*, 7 (3) 269-287.

Burbach R (1996) "For a Zapatista Style Postmodernist Perspective." *Monthly Review*, 47 (10) 35-40.

Burkett P (1999) "Fusing Red and Green." *Monthly Review*, 50 (9) 47-56.

Callicot J (1989) "The Metaphysical Implications of Ecology." Callicot J and Ames R (eds) *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy*. Albany: State University of New York Press, 51-64.

Callicot J and Ames R (1989) "The Asian Traditions as a Conceptual Resource for Environmental Philosophy." Callicot J and Ames R (eds) *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy*. Albany: State University of New York Press, 1-21.

Capra F (1996) *The Web of Life: A New Synthesis of Mind and Matter*. London: Harper Collins Publishers.

Castree N (1995) "The Nature of Produced Knowledge: Materiality and Knowledge Construction in Marxism." *Antipode*, 27 (1) 12-48.

Cheney J (1989) "Postmodern Environmental Ethics: Ethics as Bio-regional Narrative." *Environmental Ethics*, 11 (Summer) 117-134.

Cheney J (1990) "Nature and the Theorising of Difference." *Contemporary Philosophy*, 13 (1) 1-14.

Cock J (1991) "Going Green at the Grassroots. The Environment as a Political Issue." Cock J and Koch E (eds) (1991) *Going Green: People, Politics and the Environment in South Africa*. Cape Town: Oxford University Press, 1-17.

Costanza R (1989) "What is Ecological Economics." *Ecological Economics*, 1, 1-7.

Cowling R and Richardson D (1995) *Fynbos. South Africa's Unique Floral Kingdom*. Cape Town: Fernwood Press.

Crompton R and Erwin A (1991) "Reds and Greens. Labour and the Environment." Cock J and Koch E (eds) *Going Green: People, Politics and the Environment in South Africa*. Cape Town: Oxford University Press, 79-91.

Cronon W (ed) (1995) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company.

Davis S (1995) "Touch the Magic." Cronon W (ed) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 204-217.

De Chiro G (1995) "Nature as Community: The Convergence of Environmental and Social Justice." Cronon W (ed) *Uncommon ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 298-320.

Dickens P (1992) *Society and Nature: Towards a Green Social Theory.* London: Harvester Wheatsheaf.

Dickens P (1996) *Reconstructing Nature: Alienation, Emancipation and the Division of Labour.* London: Routledge.

Eckersley R (1996) "Socialism and Ecocentrism – Towards a New Synthesis." Benton T (ed) *The Greening of Marxism.* London: Guilford Press, 273-97.

EJNF (Environmental Justice Networking Forum) (1995) *Health Before Profits. An Access Guide to Trade Unions and Environmental Justice in South Africa.* Braamfontein: Friedrich Ebert Stiftung.

EJNF (1996-99) *Environmental Justice Networker. Quarterly Newletter of the Environmental Justice Networking Forum,* Issues 11 - 19 (Spring).

EJNF (1998) *Voices From the Ground. People, Poverty and Environment in South Africa.* Dorpspruit: EJNF.

Ellis J (1995) "On the Search for a Root Cause: Essentialist Tendencies in Environmental Discourse." Cronon W (ed) *Uncommon ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 256-268.

Engels F (1976) *Dialectics of Nature.* Moscow: Progress Publishers.

Enzenberger H (1974) "A Critique of Political Ecology." *New Left Review,* 84 (March/April) 3-31.

Fien J (1993) "Education for Sustainable Living. An International Perspective on Environmental Education." *Southern African Journal of Environmental Education,* 7-20.

Foster J (1995a) "Marx and the Environment." *Monthly Review,* 47 (3) 108-123.

Foster J (1995b) "Ecology and Human Freedom." *Monthly Review,* 47 (6) 22-31.

Foster J (1998) "The Communist Manifesto and the Environment." *Socialist Register*, 169-189.

Foster J (1999) "Rebuilding Marxism." *Monthly Review*, 50 (10) 38-45.

Frodeman R (1992) "Radical Environmentalism and the Political Roots of Postmodernism: Differences that make a difference." *Environmental Ethics*, 14, 307-319.

Gare A (1993a) *Nihilism Incorporated: European Civilisation and Environmental Destruction.* Bengendore: Ecological Press.

Gare A (1993b) *Beyond European Civilisation: Marxism, Process Philosophy and the Environment.* Bengendore: Ecological Press.

Gare A (1993c) "Soviet Environmentalism: The Path not Taken." *Capitalism, Nature and Socialism*, 4 (4) December.

Gare A (1994) "Aleksandr Bogdanov: Proletkult and Conservation." *Capitalism, Nature and Socialism*, 5 (2) June.

Gare A (1995) *Postmodernism and the Environmental Crisis.* London: Routledge.

Geras N (1983) *Marx and Human Nature.* London: Routledge.

Ghai D and Vivian J (ed) (1992) *Grassroots Environmental Action – Peoples' Politics in Social Development.* London: Routledge.

Goodland R (1995) "The Concept of Environmental Sustainability." *Annual Review of Ecological Systems*, 26, 1-24.

Gorz A (1980) *Ecology as Politics.* Boston: Southend Press.

Goudie A and Viles H (1997) *The Earth Transformed: An Introduction to Human Impacts on the Environment.* Oxford: Blackwell Publishers.

Graham J (1992) "Anti-essentialism and Overdetermination: A Response to Dick Peet." *Antipode*, 24 (2) 141-156.

Gruen L and Jamieson D (1994) *Reflecting on Nature. Readings in Environmental Philosophy.* Oxford: Oxford University Press.

Grundmann R (1991a) "The Ecological Challenge to Marxism." Redclift M and Woodgate G (eds) *The Sociology of the Environment, Vol 1.* Aldershot UK: Edward Elgar Publishing, 103-120.

Grundmann R (1991b) *Marxism and Ecology.* Oxford: Oxford University Press.

Guha R and Martinez-Alier J (1996) *Varieties of Environmentalism: Essays North and South.* London: Earthscan.

Haila Y and Levins R (1992) *Humanity and Nature: Ecology, Science and Society.* London: Pluto Press.

Hallman O (1991) "Nietzsche's Environmental Ethics." *Environmental Ethics*, 13 (Summer) 99-125.

Harvey D (1992) "Postmodern Morality Plays." *Antipode*, 24 (4) 300-26.

Harvey D (1996) *Justice, Nature, and the Geography of Difference.* Oxford: Blackwell.

Harvey D (1998) "The Geography of Class Power." *Socialist Register*, 49-74.

Hayles N (1995) "Simulated Nature and Natural Simulations: Rethinking the Relation between the Beholder and the World." Cronon W (ed) *Uncommon ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 409-425.

Heiman M (1996) "Race, Waste, and Class: New Perspectives on Environmental Justice." *Antipode*, 28 (2) 111-121.

Hayward T (1995) *Ecological Thought: An Introduction.* Cambridge: Polity Press.

Hill R and Bowen P (1997) "Sustainable Construction: Principles and a Framework for Attainment." *Construction Management and Economics*, 15, 223-239.

Hollowes D (ed) (1993) *Hidden Faces. Environment, Development, Justice: South Africa and the Global Context.* South Africa: Earthlife Africa.

Huckle J (1987) "Environmental Education." Huckle J (ed) *Reflections and Action.* London: Unwin.

Jameson F (1984) "Postmodernism, or the Cultural Logic of Late Capitalism." *New Left Review*, 146 (July/August) 53-92.

Jamieson, D (1998) "Sustainability and Beyond." *Ecological Economics*, 24, 183-192.

Khan F (1989) "The Role of History in Understanding Current South African Attitudes to Conservation." *Southern African Journal of Environmental Education*, 10, 3-5.

Khan F (1990a) "Looking Back to Find a Way Forward." *Earthyear 90*, 14-17.

Khan F (1990b) "Involvement of the Masses in Environmental Politics." *Veld and Flora*, June, 36-38.

Khan F (1990c) "Mass Environmental Politics: Responding to the Environmental Crisis." *Southern African Discourse,* 2 (1) 25-29.

Khan F (1991) "The Green Coalition: Working Together to Spread Environmental Awareness." *Veld and Flora,* June, 51-53.

Khan F (1992) *Black Environmental History as a Facet of Current South African Environmental Perceptions.* Research paper, Department of Environmental and Geographical Sciences, University of Cape Town.

Kingsolver B (1995) *High Tide in Tuscon – Essays from Now or Never.* New York: Harper Perennial.

Koch E (1991) "Rainbow Alliances. Community Struggles and Ecological Problems." Cock J and Koch E (eds) *Going Green: People, Politics and the Environment in South Africa.* Cape Town: Oxford University Press, 21-32.

Laferriere E (1994) "Environmentalism and the Global Divide." *Environmental Politics,* 3 (1) 91-113.

Leff E (1996) "Marxism and the Environmental Question: From the Critical Theory of Production to an Environmental Rationality for Sustainable Development." Benton T (ed) *The Greening of Marxism,* London: Guildford Press, 137-156.

Leiss W (1994) *The Domination of Nature.* Canada: McGill-Queens University Press.

Lenin V (1977) "Materialism and Empiro-criticism." Marx K, Engels F and Lenin V *On Dialectical Materialism.* London: Lawrence and Wishart, 185-363.

Levins R (1968) *Evolution in Changing Environments: Some Theoretical Explanations.* Princeton, New Jersey: Princeton University Press.

Levins R and Lewontin R (1985) *The Dialectical Biologist.* Cambridge, Massachusets: Harvard University Press.

Lowy M (1998) "Sources and Resources of Zapatism." *Monthly Review*, 49 (10) 1-4.

McDonald D (1994) "Black Worker, Brown Burden: Municipal Workers and the Environment." *South African Labour Bulletin,* 18 (4) 72-78.

McDonald D (1997) "City Limits: New Public-Private Partnerships for Improving Cities may not meet UN Habitiat Conference Expectations." *Alternatives Journal*, 23 (2) 26-32.

McDonald D (1998) "Three Steps Forward, Two Steps Back: Ideology and Ecology in South Africa." *Unpublished paper.*

McLellan D (ed) (1977) *Karl Marx: Selected Writings.* Oxford: Oxford University Press.

Macnaughten P and Urry J (1995) "Towards a Sociology of Nature." *Sociology*, 29 (2) 203-220.

Mellor M (1996) "Ecofeminism and Ecosocialism: Dilemmas of Essentialism and Materialism." Benton T (ed) *The Greening of Marxism,* London: Guilford Press, 251-267.

Mittelman J (1998) "Globalisation and Environmental Resistance Politics." *Third World Quarterly*, 19 (5) 847-872.

Moore A and Rollet J (1998) *Environmental Justice Aspects of Waste Management Practices in Port Elizabeth, South Africa.* Southern African Environmental Programme, Intern Project Research Paper.

New Internationalist (1998) *Red and Green. Eco-socialism Comes of Age.* London: New Internationalist Publications, 307.

O'Connor J (ed) (1997) *Natural Causes: Essays in Ecological Marxism.* London: Guilford Press.

Ollman B (1971) *Alienation: Marx's Conception of Man in Capitalist Society.* New York: Cambridge University Press.

Olwig K (1995) "Reinventing Common Nature: Yosemite and Mount Rushmore – a Meandering Tale of a Double Nature." Cronon W (ed) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 379-408.

Parsons H (ed) (1977) *Marx and Engels on Ecology.* London: Greenwood Press.

Peet R (1992) "Some Critical Questions for Anti-essentialism." *Antipode*, 24 (2) 113-130.

Peet R and Watts M (ed) (1996) *Liberation Ecologies.* London: Routledge.

Pepper D (1993) *Eco-Socialism – from Deep Ecology to Social Justice.* London: Routledge.

Pepper D (1996) *Modern Environmentalism. An Introduction.* London: Routledge.

Perelman M (1996) "Marx and Resource Scarcity." Benton T (ed) *The Greening of Marxism.* London: Guilford Press, 64-80.

Pratt L and Montgomery W (1997) "Green Imperialism: Pollution, Penitence, Profits." *Socialist Register.* London: Merlin Press, 75-95.

Price J (1995) "Looking for Nature at the Mall: A Field Guide to the Nature Company." Cronon W (ed) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 186-203.

Proctor J (1995) "Whose Nature: The Contested Moral Terrain of Ancient Forests." Cronon W (ed) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 269-297.

Quigley P (1992) "Rethinking Resistance, Environmentalism, Literature, and Post-Structuralist Theory." *Environmental Ethics,* 14 (Winter) 291-306.

Quinlan T (1990) "Understanding Conservation: Questions for Sociological Analyses of Ecological Processes." *Southern African Discourse,* 2 (1) 18-24.

Redclift M (1984) *Development and the Environmental Crisis: Red or Green Alternatives?* London: Routledge.

Redclift M (1987) *Sustainable Development. Exploring the Contradictions.* London: Routledge.

Resnick S and Wolff R (1992) "Reply to Richard Peet." *Antipode,* 24 (2) 131-140.

Rogers A (1993) "Adult Learning Maps and the Teaching Process." *Studies in the Education of Adults,* 25 (2) 199-220.

Sachs A (1990) "Conservation and 3rd Generation Rights." Draft paper delivered to workshop on *Society, Human Rights and the Environment.*

Schmidt A (1971) "The Mediation of Nature through Society and Society through Nature." Redclift M and Woodgate G (eds) *The Sociology of the Environment, Vol1.* Aldershot UK: Edward Elgar Publishing, 313-331.

Sethi H (1993) "Survival and Democracy: Ecological Struggles in India." Wignaraja P (ed) *New Social Movements in the South: Empowering the People.* London: Zed Books, 122-147.

Slater C (1995) "Amazonia as Edenic Narrative." Cronon W (ed) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 114-131.

Sochor Z (1988) *Revolution and Culture: The Bogdanov-Lenin Controversy.* Ithaca: Cornell Universtiy Press.

Soper K (1979) "Marxism, Materialism and Biology." Mepham J and Ruben H (eds) *Issues in Marxist Philosophy: Vol2: Materialism.* Hampstead: Harvester Wheatsheaf, 61-96.

Soper K (1981) *On Human Needs: Open and Closed Theories in a Marxist Perspective.* Sussex: Harvester Press.

Soper K (1995) *What is Nature?* Oxford: Blackwell Publishers.

Soper K (1996) "Greening Prometheus." Benton T (ed) *The Greening of Marxism,* London: Guilford Press, 81-99.

Spencer B (1995) "Old and New Social Movements as Learning Sites: Greening Labour Unions and Unionising the Greens." *Adult Education Quarterly,* 46 (1) 31-42.

Spirn A (1995) "Constructing Nature: The Legacy of Frederick Law Olmsted." Cronon, W (ed) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 91-113.

Spretnak C (1984) "The Spiritual Dimension of Green Politics." Capra F and Spretnak C *Green Politics: the Global Promise.* London: Paladin, 230-258.

Stabile C (1995) "Postmodernism, Feminism, and Marx: Notes from the Abyss." *Monthly Review,* 47 (3) 89-107.

Thorpe V (1993) "Solidarity First: Environmental Priorities for Labour Internationalism." Hallowes D (ed) *Hidden Faces: Environment, Development, and Justice: South Africa and the Global Context.* South Africa: Earthlife Africa, 77-83.

Tolman C (1991) "Karl Marx, Alienation and the Mastery of Nature." *Environmental Ethics,* 3, 63-74.

Versveld M (1991) *Sum. Selected Works.* Cape Town: Carrefour Press.

Vogel S (1988) "Marx and Alienation from Nature." *Social Theory and Practice,* 14 (3) 367-387.

Watts A (1975) *Tao: The Watercourse Way.* New York: Penguin Books.

Watts M (1996) "Nature as Artifice, Nature as Artifact; Development, Environment and Modernity in the Late 20C." *Institute of International Studies Working Paper,* 4 (14).

Wei-ming T (1989) "The Continuity of Being: Chinese Visions of Nature." Callicot J and Ames R (eds) *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy.* Albany: State University of New York Press: 67-78.

Weiner D (1988) *Models of Nature*. Bloomington: Indiana University Press.

White R (1995) "Are You an Environmentalist or do You Work for a Living?" Cronon W (ed) *Uncommon Ground: Rethinking the Human Place in Nature.* New York: Norton and Company, 171-185.

Wood E and Foster J (1996) "Marxism and Postmodernism – A Reply to Roger Burbach." *Monthly Review*, 47 (10) 41-46.

Zimmerman M (1994) *Contesting Earth's Future: Radical Ecology and Postmodernity.* California: University of California Press.