

Section 1

Chapter 2: Approaching Environmental Issues

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Learning Outcomes

Knowledge and Understanding

- You will understand that environmental problems have their origin in ideological structures and are the result of particular decisions made by, generally, societies' most powerful interests.
- You will recognise sustainable development as a contemporary discourse which is inherently problematic, be able to distinguish between different approaches to environmental problems and their origins and develop an understanding of selected critiques of prevailing environmental discourses.

Critical Awareness

- Through reflecting on your own environmental views and behaviour, you will recognise that strategies for dealing with environmental problems are dependent on how these problems themselves are understood and produced.

Introduction

The environment at any point in time is a product of the interplay between social, physical and natural/biological processes. Given that our actions as human beings, organisations and communities are influenced by a set of cultural practices (comprising, for example, linguistic, religious, spiritual and philosophical underpinnings which inform our ‘world views’) it should be clear that the environment will therefore be affected by these practices. This chapter will focus on some of these cultural foundations to demonstrate the importance of understanding the role of the values they represent in producing particular environmental problems, and the strategies for dealing with these problems.

Although societies tend to be characterised by a single set of values (‘Christian capitalist’ America, the ‘Islamic’ Middle East or ‘Communist’ Cuba), in reality each dominant set of values represents a particular moment in which these have achieved ‘hegemonic power’ over other, possibly competing, values. Whilst these values are mutable and fluid, they are at the same time intimately tied to dominant groups in society in whose interest it is to ‘naturalise’ these values such that society thinks of them as inevitable. One term that this chapter, and book, will consistently return to is ‘discourse’: a practice through which a set of ideas achieves and maintains momentum, and which has already been discussed in some detail in Chapter 1 (see also Box 1).

BOX 2.1: DEFINING KEY TERMS

Nature: While nature is often seen as separate from humans and society (as a resource, for example, or a physical entity which suffers from human activity), this is only one way of conceptualising it. Noel Castree (2001) argues that there are several ways of defining nature and that this conventional Western view is of an external nature, or **environment**. He reviews the ways in which critical geographers see nature as a social concept – ‘social nature’, in that the only way in which we can ‘know’ nature is through our perception of it, consequently it is internalised by our perception. Also, because we are ‘physical’ bodies, we physically interact with nature, forming what Erik Swyngedouw (1999) calls ‘socionature’. Through this interaction, nature is constantly ‘remade, or ‘reconstituted’, which again suggests that it is unrealistic to think of nature as something separate to ourselves. (Castree, 2001; Swyngedouw, 1999)

Discourse: ‘Sets of capabilities people have, as sets of socio-cultural resources used by people in the construction of meaning about their world and their activities. It is NOT simply speech or written statements but the rules by which verbal speech and written statements are made meaningful.’ (O’Tuathail and Agnew, 1998:80)

Hegemonic Power: A position held by a state or a class when it so dominates its sphere of operation that other states or classes are forced to comply with its wishes. (Flint and Taylor, 2007)

In the physical sciences, Thomas Kuhn (1970) conceived the idea of paradigms – a set of dominant or, what could now be termed hegemonic, ideas which frame scientific understanding at any one time. Kuhn used the term ‘paradigm shift’ to explain how a

set of theories, or dominant, or hegemonic, set of ideas, gives way to another over time. It was through paradigm shifts, Kuhn argued, that scientific knowledge develops. A theoretical body of knowledge has power only as long as it provides a persuasive explanation as to why things are as they are, but, as it is in the nature of science to question and refute, the dominant paradigm within which the theory has developed is constantly challenged. A robust theory is better able to withstand challenges but ultimately will yield to alternative theories if they are able to offer more persuasive explanations in the light of more sophisticated or extensive data. Challenges to existing theories may eventually lead to the emergence of a completely different paradigm, which will, in turn, become the dominant, or hegemonic, paradigm and itself open to challenge.

It is through challenge, then, according to Kuhn, that science develops. Within each paradigm, science is expected to proceed in a linear fashion in its attempt to uncover a pre-existing body of knowledge, although the paradigm shifts can represent radically different changes in direction of scientific thought, as the title of Kuhn's book 'The Structure of Scientific Revolutions' suggests. Kuhn was one of the positivists working in Europe in the mid twentieth century for whom the search for knowledge represented truths to be discovered, rather than a socially contingent way of understanding. This particular – positivist - way of considering the world sits firmly in the 'modernist' world view which emerged out of a transformation of society, referred to as 'the enlightenment,' which Karen Armstrong argues was 'the last of the great revolutions of human experience'. (Armstrong, 2005:119).

The enlightenment, the Christian tradition and the environment

The enlightenment – a term which, itself, reveals the expectations of its protagonists - has had profound implications for nature and the environment as it was founded on ‘an economy that seemed, potentially, to be indefinitely renewable’ (Armstrong, 2005: 120). Philosophical approaches which characterised the enlightenment were powerful shapers of industrial society. Attitudes which have defined features of Western industrial, and postindustrial, societies - for example nature’s ‘use’ value as a present or potential resource, and allocations based on rights (even though the groups to whom rights have been extended vary over time, as the later section on environmental justice will show) – can clearly be traced back to the enlightenment.

According to Eric Hobsbawm, the enlightenment was defined by a conviction of the progress of human knowledge, rationality, wealth, civilization and control over nature (Hobsbawm, 1977:54). The enlightenment drew some of its inspiration from Greek philosophy, for example, Aristotle’s focus on husbandry and nature as a resource for the careful use of society. Because Christianity, too, was inflected with Hellenism (Chrysaviggis suggests that the early Christian tradition was influenced by Greek interest in the cosmos, 2006: 94) it is not surprising to find echoes of the Christian articulation of society with nature in enlightenment thinking. Four themes can usefully be identified in Christianity, which also find their way into enlightenment thinking. These should, however, be seen as interwoven: dualism, by which a division between humans and nature is established; hierarchy, by which humans are placed at

the apex of living beings; utility through which nature is seen as a resource for human beings and stewardship, by which humans are, through their superior intelligence, charged with taking care of nature for both lesser beings and future generations, prefiguring the central precept of 'sustainable development'.

Hobsbawm insists, however, that the enlightenment represents a departure from religious traditions which 'For most of history and over most of the world (China perhaps being the main exception) the terms in which all but a handful of educated and emancipated men thought about the world were those of traditional religion (Hobsbawm, 1977: 266). By the late eighteenth century, the enlightenment had become the 'religion' itself. In his book 'The Age of Revolution', Hobsbawm suggests that enlightenment thinking had created a secular, rationalist and progressive individualism which sought to free society from the 'ignorant tradition of the Middle Ages and superstition of the churches' (as distinct from 'natural' or 'rational' religion). This thinking formed the basis of the French and American revolutions founded on an emerging bourgeois and capitalist middle class.

Armstrong's particular analysis of the enlightenment concerns the place of myth in society, which she describes as 'stories that enabled us to place our lives in a larger setting, that revealed an underlying pattern and gave us a sense that...life had meaning and value (p2). Mythology, as a strategy for helping people cope with the 'problematic human predicament' is, she argues, both psychology and religion and is

continually adapted to suit changing conditions (although it also helps to structure those conditions).

Nature is intrinsically part of the myths societies sustain, and the role of nature relative to human beings and other creatures in those myths will influence the way in which societies view and treat it. For example, as this chapter will show, Christian societies, which see human beings as stewards of nature, on behalf of less elevated forms of life and future generations, consequently view nature quite differently from Buddhists for whom nature is an interconnected web of which humans are an integral part. These traditions, and the contemporary influence they have on both economic and environmental thinking will be examined in more detail later in this chapter. It is not, therefore surprising, that Western society, based on a combination of Christian and scientific world views, combines a view of nature which it both 'stewards' and controls, in various measures at various times. Arguably, sustainable development represents an extension of this combined world view, as it seeks to articulate environmental considerations with sustained economic development, a position many critics suggest is untenable but which, this book argues, appeals to enough powerful interests to have elevated it to the status of a prevailing discourse.

Returning to Kuhn's paradigms, these are useful in showing that the dominant way of understanding nature/the environment is partly a result of their ability to answer critics by the power/salience of an argument which accords with the prevailing norms of the society in which it is developed. However, discourse theory shows how the

power of any particular way of looking at the world derives also from the power of its proponents to shape the way in which individuals learn, read and think about the world. It is instructive to consider the ways in which alternative environmental understandings are treated to see how they do – or do not – influence the prevailing world view.

Consider, for example, North American or Australian societies in which the prevailing Christian-scientific world view has overwhelmed the values of indigenous communities, which remain in pockets of these societies. As well as existing in their own right, these indigenous understandings of the relationship between humans, non-human beings and nature have inspired a number of radical eco-centric environmental movements. Both indigenous and radical ‘alternatives’ are tolerated by Western society, which prides itself on this tolerance and its democracy, but are constructed as minority interests with limited practical capability and, as such, can be effectively marginalized. This is particularly true of the current debate on climate change which, in the West, is focusing on technological strategies for amelioration such as the development of biofuels, hydrogen power, and greater energy efficiency to reduce carbon dioxide pollution, rather than engage with alternative approaches to the ways in which we live, work, travel and consume. However, this is inherently problematic.

Biofuels (derived from plants such as oil seed rape, sugar-beet and wheat) are currently being heralded as the ‘carbon-neutral’ alternative to fossil fuels as they consume enough carbon dioxide in growing to offset that released when burnt as fuel.

However, this can be misleading. Because of the nitrogen fertilisers used in producing the oil seed rape from which some biofuels are derived, significant amounts of carbon dioxide (7 kilograms of CO₂ for every kilogram of nitrogen fertiliser made) are produced before the crop is even harvested (Defra/Sheffield Hallam in Maynard, Ecologist, 2007:30); they also create more carbon dioxide by transportation than they save by reducing fossil fuels'. (Young, 2006 Farmers Weekly, Oct). In addition to creating CO₂ emissions, biofuel production causes a number of other problems, which tend to impact most heavily on the poor, including soil erosion, loss of land for food growing (an area larger than the entire agricultural land currently in use in the UK would be needed to replace the annual UK consume of petroleum). The West is also outsourcing production of biofuels to countries in the Global South, resulting in the clearance of rainforest in countries like Malaysia in which 87 per cent of deforestation between 1985 and 2000 was caused by biofuel production (Maynard, 2007:28). As this suggests, even in the developing economies of India and China, in the past variously influenced by very different world views such as Hinduism, Buddhism, Confucianism and Communism, a Western-scientific approach now dominates development and those economies' relationship with nature, as the example of the Narmada Dam project in India presented in Chapter 3 makes clear.

Business as usual, or time for a paradigm shift?

At its most extreme, this western-scientific world view, of which sustainable development is now effectively a part, can be deemed 'cornucopian' in which progressively sophisticated technology and ingenuity can provide perceived solutions

to environmental problems whether these be resource depletion (by identifying another resource), pollution or waste (by creating mitigation technologies). In 1980, Julian Simon, one of the better known cornucopians, threw a challenge to Paul Ehrlich (a critic of western environmental values and prominent author of, amongst other books, 'The Population Bomb'), which invited him to name a basketful of commodities which, if they were becoming scarcer, could be expected to increase in price over an extended period of time. Ehrlich bet \$1,000 on five metals – chrome, copper, nickel, tin and tungsten – in quantities that each cost \$200. A futures contract was drawn up obligating Simon to sell Ehrlich and his colleagues these same quantities of the metals 10 years later, but at 1980 prices. If the price of the basket had risen, Ehrlich would have won the argument – and the bet; alternatively, if the commodities had become cheaper, Simon would have triumphed for the cornucopians.

Q: Who do you think won the argument and why?

Answer – include in appendix?

In 1990, Ehrlich “mailed Simon a sheet of calculations about metal prices – along with a cheque for \$567.07. ...Each of the metals chosen by Ehrlich’s group, when adjusted for inflation since 1980, had declined in price. The drop was so sharp, in fact, that Simon would have come out slightly ahead overall even without the inflation adjustment called for in the bet. Prices fell for the same Cornucopian reasons they had fallen in previous decades – entrepreneurship and continuing technological

improvements. Prospectors found new lodes, such as the nickel mines around the world that ended a Canadian company's near monopoly of the market. Thanks to computers, new machines and new chemical processes, there were more efficient ways to extract and refine the ores for chrome and other metals. For many uses the metals were replaced by cheaper materials, notably plastics, which became less expensive as the price of oil declined."

John Tierney, 1990

Professor Simon was involved in another clash of views when he debated the environmental proposal "Scarcity or abundance?" with Professor Norman Myers, in 1994. The dean of the School of International and Public Affairs at Columbia University, which hosted the debate, Professor John Gerard Ruggie, suggested that the proponents held different world views which caused "our two authors" to assess the real world in completely different ways. Both drew on published data on life expectancy, soil degradation and biodiversity loss to 'prove' their case (in Simon's case that "more people almost surely imply more available resources and a higher income for everyone" p124 and in Myers that "we are at a watershed in human history because of the grand scale environmental degradation that is overtaking our planet in conjunction with excessive population growth [is causing] mass extinction" p125). (Myers and Simon, 1994)

As Chapter 4 on economic values explores in more depth, the inflection of the western world view with some environmental considerations has produced an 'ecological

modernisation' approach to business, which advocates producing goods and services more efficiently, thereby saving businesses money as well as answering environmental critics. Businesses, for example, claim environmental advantages from a range of practices such as reducing packaging, substituting biodegradable materials for oil based plastics or switching to so called renewable fuels, meanwhile continuing to expand production and stimulate consumption. Whilst making sound financial sense, both from expenditure savings, and in terms of enhanced publicity, this does little to assuage environmental – or social – problems in the longer term. As Hawken et al (1999) argue in 'Natural Capitalism', as long as the economy is organised around and privileges financial rather than natural and social resources it will continue to be inefficient on all three counts. Moreover, continued inefficiencies in the West are used as a smokescreen to argue against development in the Global South (as the chapter on Climate Change makes clear when discussing how the US refusal to sign the Kyoto Protocol hinges partly on its insistence that developing economies such as Brazil, China and India should be subject to similar greenhouse gas emissions targets as Western countries). However, for all its limitations, the concept of sustainable development is valuable in that it has brought together the *three* pillars of the economic, the environmental and the social. The danger within current applications of sustainable development is that the economic has primacy and that environmental improvements are introduced when they can be seen to deliver economic benefits, or when there is sufficient fear of imminent resource depletion (see chapters 4 and 8 on economics and climate change). The current enthusiasm for energy and industrial efficiencies is heavily predicated on the availability of replacement technologies (even

though, in the case of biofuels, for example, the social and environmental costs of growing sufficient of these to maintain the World's current, let alone projected, car mobility, are potentially huge, as the chapter has already indicated), and on the economic gains that can be made from implementing these. It is telling that ex US President Bill Clinton's endorsement of the book 'Natural Capitalism' says that it: 'proves beyond any argument that there are presently available technologies, and those just on the horizon, which will permit us to get richer by cleaning, not by spoiling, the environment.' (1999: back cover; author's emphasis.)

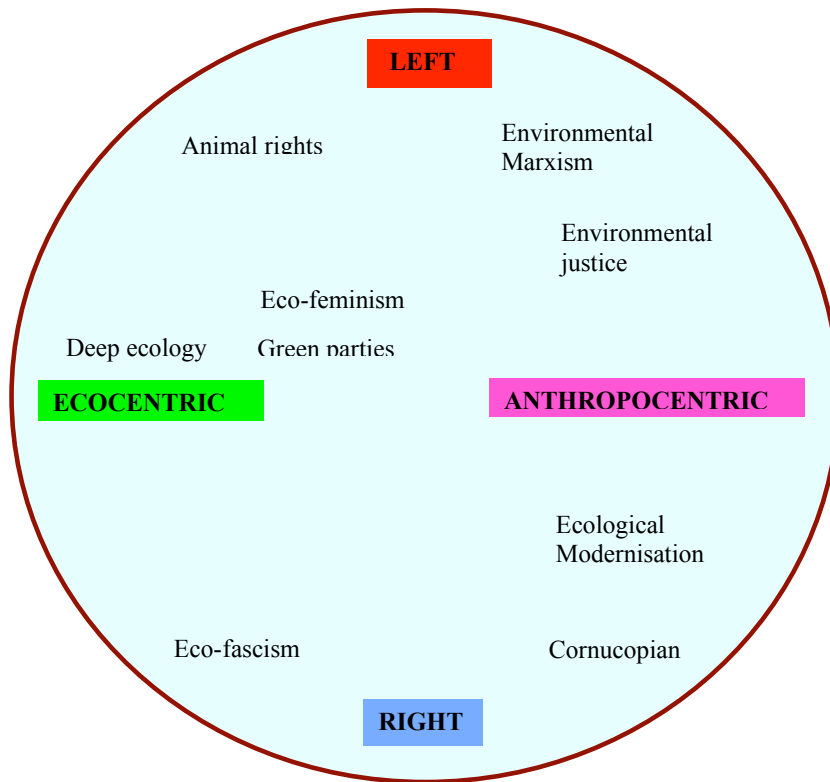
At the heart of this discussion is the question, which the reader of this book might like to reflect on, as to whether the environmental problems which have emerged as a result of the dominant Western world view can adequately be addressed within that world view, or whether a paradigm shift is required. Part of this question hinges on an analysis of exploitation: as well as natural resources being exploited by industrial society, this society has a long history of human exploitation. A number of current critiques of the Western social-environment relationship call into question the way in which disadvantaged people and communities disproportionately experience environmental problems, so that elites can continue their resource intensive lives relatively unaffected by environmental damage. This chapter will consider in some depth two of these critiques: environmental justice and eco-feminism. Environmental justice, and some strands of the eco-feminist movement have, themselves, emerged from enlightenment discourses around rights and justice and engage these to try to redress the imbalance of environmental goods and bads. Eco-feminism goes further in

suggesting that it is the exploitative nature of Western capitalism, which treats women and the environment as relatively powerless interests, that equips women particularly well to address environmental problems, as they share the experience of exploitation. Finally, while Western society is potentially modified by critiques such as environmental justice and ecofeminism, the chapter will conclude by considering the ways in which a completely different approach suggests an alternative way of living with nature. The choice of Buddhism is deliberate in that as well as providing the foundation for a way of living in some non-Western societies, it has also inspired a sizable part of the deep green movement in the West and, as such, can be seen as having the potential to influence society-environment relations globally.

The relationships between approaches to the society/environment nexus

Broadly speaking, analyses of environmental philosophies have tended to conceptualise these philosophies on a grid of eco-centrism and anthropocentrism (or people-centredness), and between left and right politics. Extreme points on this grid (see Figure 1) would be eco-Marxism (left, anthropocentric), eco-facism (right, eco-centric), deep ecology (eco-centric) and cornucopian (anthropocentric).

Figure 2.1: Approaches to the Environment



David Pepper reviews some of these perspectives, grouping ideas under ‘radical environmentalism’ (in which he includes biocentrism and ecofeminism), ‘modern ideas about nature and science’ (covering the scientific revolution and Christianity) and ecocentrism (including utopian socialism and ecological economics). (Pepper, 1996.)

As Anthony Giddens in ‘Beyond Left and Right’ has argued, the environment is increasingly an example of a contemporary issue which breaks typical political pigeonholing, with politicians from most political parties racing to the middle ground of ecological modernisation (Giddens, 1994). What little concern there was about environmental problems on the left was articulated as eco-socialism drawing on the work of neo-Marxists and earlier social thinkers such as John Stuart Mill, William Morris and Henry David Thoreau (as Chapter 3 develops). In many respects, this agenda has been subsumed in environmental justice movements which take up the case of indigenous groups, the poor, people of colour, and people in the Global South. Andrew Dobson broadly conceptualises this amalgam of approaches as ‘environmentalism’, which he defines as: ‘a managerial approach to environmental

problems, secure in the belief that they can be solved without fundamental changes in present values or patterns of production and consumption.’ (Dobson, 2000, p2.) In these times of increasing attention to the environment, for whatever reason, it becomes increasingly difficult to differentiate distinct environmental philosophies by a left/right division, as environmental thinking permeates more widely. Green Parties, while constituting formal political parties, particularly in Europe, where Green MEPs represented just under 6% of members of the European Parliament in 2004 (see Chapter 3) would argue for a more radical change in the relationship between society and nature. Two leading figures in the British Green Party, Michael Woodin and Caroline Lucas (Woodin was the Principal Speaker of the party in England and Wales until his death in 2005, while Lucas is an MEP representing South East England) capture the social-environmental aims of the green movement. These include the reconstruction of ‘patterns of human activities and relationships so that they come to respect the natural systems on which they depend’ , a prerequisite of which is that ‘equity and social justice are woven into the fabric of society’. (Woodin and Lucas, 2004 p xix)

There are also anarchist politics, which, opposing the state political system also fall outside the left/right divide. These have a long tradition which St Augustine’s advocacy in the 4th and 5th centuries CE suggests: ‘Augustine advocated community of goods, care for creation, and even intergenerational responsibility when he stated that Christians should regard themselves as pilgrims on a journey who paused for a while at an inn.’ (Hart, 2006 p68). Also Aquinas advocated that ‘possessions and provision

of the necessities of life for all people' meant that a 'person in need [could] go quietly in the night to take from the barn of a nobleman what was needed for survival: what they would be taking would actually be their own property, since their need in their time and place made all property come under the natural law of common property.' (Hart, 2006 p69.)

Such beliefs characterise the anti-globalisation movement and a number of protests characterised by Naomi Klein as organised through webs and networks (Klein, 2001). Dobson includes some such groups in his concept of 'ecologism', which he defines as holding 'that a sustainable and fulfilling existence presupposes radical changes in our relationship with the non human natural world, and in our mode of social and political life', more of which will be discussed later in this chapter. Dobson's distinction between environmentalism and ecologism is an important one as it also challenges the continuum of environmental thought often described as between deep and shallow, or between dark and light green, ecology. He does so on the grounds that while ecologism is an ideology in itself, environmentalism can be ascribed to any other ideology which incorporates some environmental strategies (such as environmental capitalism or environmental socialism), without challenging their underlying foundations. No society will change ideologically by switching from fossil to biofuels, to recycle rather than landfill rubbish or by enforcing more efficient pollution controls: these are environmental adjustments which permit existing ideologies to proceed with business as usual. Indeed, it can in the short term serve to mask some of the existing ideology's failings. On the other hand, ecologism, Dobson suggests, 'challenges the political,

social and scientific consensus that has dominated the last two or three hundred years of political life' (Dobson, 2000, p8).

One example of an ecologist argument is social ecology, which is arguably an intellectual, as much as a political or campaigning movement which draws on the work of, amongst others, Murray Bookchin: an American earlier involved in labour politics. Social ecology argues against the dualism which characterised the enlightenment - and subsequent Western – ways of thinking, as it tends to separate nature from society and culture. Bookchin claims that the social ecology approach is diverse enough to 'nurture freedom, [is] an interactivity that enhances participation and a wholeness that fosters creativity, a community that strengthens individuality [and] a growing subjectivity that yields reason.' (Bookchin, 1990, in Benton and Short, 2000: 203) He advocates the bioregion as the basic organising principle for human societies. Social ecology, then, articulates society/culture with nature in complex holistic ways that 'harmonize[s] our relationship with nature in a creative not destructive "metabolism" with nature.' (ibid, 203) More of this later, when the chapter turns to consider deep ecology.

With the increased visibility of environmental justice movements (which focus on race as much as class or poverty) and global anti-globalisation movements advocating international links through hyper-space as much as local self sufficiency, the kind of socialist and bioregional ways of thinking of Bookchin may appear a little dated. However, when adapted to changing circumstances, such as the growth of information

communications technology, they have much potential, as the chapter will conclude.

Box 2 quotes from Gary Snyder's consideration of the nature of the bioregion from which can be seen that it is a more coherent way of organising and managing the way in which we live as an integral part of our environment than often arbitrary political boundaries, such as the 49th parallel which defines the boundary between Canada and the USA, or those created in Africa by the colonial powers of Europe and the USA at the Berlin Conference in 1884 (Pakenham, 1991). It is worth considering how the bioregion described here draws from biogeographical concepts.

Box 2.2: The Bioregion

'The world of culture and nature, which is actual, is almost a shadow world now, and the insubstantial world of political jurisdictions and rarefied economies is what passes for reality. We live in a backwards time....Regions are "interpenetrating bodies in semi-simultaneous spaces" (Cafard, 1989). Biota, watersheds, landforms, and elevations are just a few of the facets that define a region....The coastal Douglas Fir, as the definitive tree of the Pacific North West, is an example....Its northern limit is around the Skeena River in British Columbia. It is found west of the crest through Washington, Oregon and Northern California. The southern coastal limit of the Douglas Fir is about the same as that of salmon, which do not run south of the Big Sur River. Inland it goes down the west slope of the Sierra as far south as the north fork of the San Joaquin River. That outline describes the boundary of a larger natural region that runs across three states and one international border.

‘The presence of this tree signifies a rainfall and a temperature range and will indicate what your agriculture might be, how steep the pitch of your roof, what raincoats you’d need. You don’t need such details to get by in the modern cities of Portland or Bellingham. But if you do know what is taught by plants and weather, you are in on the gossip and can truly feel more at home. The sum of a field’s forces becomes very loosely the “spirit of the place”. To know the spirit of the place is to realize that you are part of a part and that the whole is made of parts, each of which is whole. You start with the part you are whole in.’

‘Bioregionalism is the entry of place into the dialectic of history. Also we might say that there are “classes” which have so far been overlooked – the animals, rivers, rocks and grasses – now entering history.

‘These ideas provoke predictable and usually uninformed reactions. People fear the small society and the critique of the State. It is difficult to see, when one has been raised under it, that it is the State itself which is inherently greedy, destabilising, entropic, disorderly and illegitimate....

‘The bioregional movement is not just a rural program: it as much for the restoration of urban neighbourhood life and the greening of the cities. All of us are fluently moving in multiple realms that include irrigation districts, solid waste management jurisdictions, long distance area code zones, and such. Planet Drum Foundation, based in the San Francisco Bay Area, works with many other local groups for the regeneration of the city as a living place, with projects like the identification and restoration of urban creeks...’ (Snyder, 1990, pp37-38.)

Having briefly reviewed a range of environmental approaches, what the remainder of this chapter intends to do is to focus on three socio-environmental critiques of the way in which the dominant world view (of global capitalism under neo-liberalism) treats the environment, to show how these critiques have emerged from particular bodies of thought and to invite the reader to think about the likely impact these challenges will have. Elsewhere in the book we put these, and other, critiques into particular contexts, where appropriate. These critiques are clearly not exclusive, and are not even necessarily the most important, but they illustrate key points which the book is making about how ideas and consequently processes are produced, and the relationship between philosophies. These are primarily critiques of the society/nature relationship, but it is also worth reflecting on critiques of decision making processes. Environmental justice and some interpretations of ecofeminism argue that there is insufficient attention given to the views of people most affected by environmental problems; these critiques are more thoroughly developed in the environmental democracy discourses proposed by, for example, Burgess, Clark and Harrison (2000); Hajer (1995) and Mason (1999), which stress the importance of deliberative or participative democracy, in which a range of 'stakeholders' (that is, people who hold a stake in the area being developed, whether that is their home, their business or professional concern) are engaged in a participation or consultation exercise which they understand. This approach is distinct from the nominal participation exercises often run by, for example, local councils, and which rely on the participation of a

small number of unrepresentative interests, or on circulated questionnaires without investing in educating the broader population about the issues at stake.

CRITIQUES

Environmental Justice

The term environmental justice describes a range of social movements which originated in the USA in the 1980s, although the principles underlying this – that individuals and communities ought not to be unfairly disadvantaged in their exposure to environmental problems – have a longer history as Chapter 3 on environmental politics demonstrates. It was born out of the Civil Rights movements of the 1960s and specifically related to the frustrations of African American and Hispanic communities who experienced greater degrees of environmental pollution and other disadvantage than their income alone would predict. Bob Bullard, a seminal figure in both the movement and in its analysis, dates its inception to the explosion at a hazardous waste disposal site which received PCBs, amongst other chemical waste, in 1982 in Warren County, South Carolina. This event, and the protest which ensued, focused campaigning groups' attention on the relationship between minority ethnic status and health and environmental problems. In 1987, the Commission for Racial Justice presented evidence that race was the most potent variable in predicting where a factory would be located which led, ultimately, but not until the Democratic Clinton administration in 1992, to a review of Federal legislation. An Executive Order passed in 1994 ensured that Federal actions were taken 'to address environmental justice in

minority populations and low income populations (Bullard, 1999) Despite a series of legislative measures, however, there continue to be significant violations eloquently documented by writers such as Melissa Checker (2005, see Chapter 5 on waste) and Hilda Kurtz. Kurtz, for example, analyses a case in Louisiana in which a multi-racial poor community living in an industrial neighbourhood protested against the expansion of a chemical producing factory. Her research catalogues the way in which the interests of government and the chemical combined against the interests of the multiracial local community. Of particular interest to the student reader might be the role of students and their lecturers at Tulane University in providing scientific evidence to the community to support their challenge to the siting of another chemical plant in the neighbourhood. As a result of the outcome of the case, in which the Louisiana State government upheld the community case, the Federal government deemed any evidence provided by students to be inadmissible in future environmental in/justices cases. (Kurtz, 2003)

In the UK, Friends of the Earth Scotland, used environmental justice as a campaigning framework to protest against the disadvantaging of poor neighbourhoods in Scotland by the location of waste disposal sites (see Dunnion and Scandrett's 2003 analysis in Chapter 5 on waste), since when the concept has been adopted by other groups concerned about the lack of ethnic minority representation in the UK environmental movement (such as Capacity Global and the Black Environmental Network), and left-leaning local government (the Greater London Assembly has produced a position statement on environmental justice).

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At the global scale, environmental justice provides a language with which relatively powerless groups can protest against the inequities of food security (see Vandana Shiva's analysis of multinational interests in appropriating food production in Chapter 6 on Food), hazardous waste (see the discussion on the Basel Convention on the shipment of hazardous waste in Chapter 7 on waste and Chapter 10 on Mexico City), water availability (see Chapter 10) and oil exploitation (see the discussion on Shell's oil production in the Niger River Delta region of Nigeria, in Chapter 3). The groups treated unjustly here are both indigenous groups within countries in the Global South (for example the minority Ogoni people in Nigeria experiencing pollution as a result of oil extraction in the Niger river delta), and the Global South more generally, which has access to considerably less power than countries in the Global North, whose influence on international institutions such as the World Bank, IMF, and WTO is incontrovertible.

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A corollary to this view follows from the increasing awareness that global biodiversity is decreasing and therefore that humankind has a responsibility for ensuring the stabilisation of the rate of decrease. This view leads to an extension of the concept of environmental justice to include global and inter-generational inequity, rather than the highly localised approach of the American tradition. Examples cited in an ESRC report on environmental justice (ESRC Global Environmental Change Programme, 2001) include the effects of the Chernobyl accident and the impacts of industrial pollution, concentrated in fish through the food chain, on the Inuit people's staple diet. The report also suggests that the effects of global warming are an injustice to

people in the Global South and to future generations, neither of whom were responsible for their causation but both of whom have to suffer their consequences.

However, it is important to point out that environmental justice movements, as Schlosberg (2007) points out, do not necessarily incorporate ecological justice as one of their aims (where ecological justice refers to the way in which non-human nature is treated). Environmental justice has emerged from the political science tradition of 'rights' and distributive justice which, with its focus on the redistribution of environmental goods and bads places it on the left of the political-environmental spectrum. Schlosberg argues the need for a greater attention to issues of recognition and participation alongside distribution to widen the range of environmental justice, which articulates with an increasing body of work on environmental citizenship linked to participative democracy, as this chapter has highlighted earlier, and Chapter 5 has discussed in relation to participatory GIS.

Environmental justice has a history of anthropocentrism in which the central focus is on human beings, arguing that only sentient beings can negotiate distribution, which leads to non-human nature qualifying for compassionate treatment, rather than justice in its own right. The influences on this approach can be traced back through Rawls (1970s) to enlightenment thinking, and to ancient Greek philosophies which stressed rationality, impartiality and objectivity, as well as through the civil rights movements. Schlosberg's argument that environmental justice has neglected ecological justice (and his book 'Defining Environmental Justice' seeks, as one of its aims, to bridge the gap

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between environmental and ecological justice) suggests that the civil rights movement, in some ways, has been used selectively. After all, Martin Luther King was a Christian minister, who was also significantly inspired by Mahatma Gandhi whose strategy of peaceful resistance: satyagraha (from Gujarati 'sat' for truth and 'agraha' firmness, Gandhi, 1993:319) was intimately derived from the Hindu (and Buddhist) philosophy of ahimsa – or non harm. As the discussion on Buddhism will later show, some spiritual traditions outside Judaism-Christianity-Islam, would not claim that non-human nature was not sentient. The 'engaged Buddhism' of Vietnam, responding to the injustices of the colonial war in Vietnam raised global questions about environment injustice, and demonstrates religious/alternative influences on the environmental justice movement outside the West, as do some of the liberation theology movements in Catholic Latin America.

While it has done much to raise the profile of individuals and communities in poverty, and discriminated against by colour, environmental justice is remarkably silent on the question of gender which may have something to do with geographies of gender (where environmental discrimination is written on the microgeographies of the body and household rather than more visible neighbourhoods and communities) and the gendered nature of the environmental justice movement itself (Buckingham, 2007). The following section will explore the contribution ecofeminism makes to critiques of the Western environmental world view, and explores its greater propensity to include ecological justice in calls for reforming the relationship between society and nature.

Ecofeminism

Ecofeminism is included here for a number of reasons: firstly, gender is habitually neglected as a way of understanding human-environment relationships by academics (other than feminist scholars), campaigners and policy makers; secondly, partly as a response to this, exploring the relationship between gender and environment is the major research concern of the author; thirdly, a focus on gender provides an example of a relationship – patriarchy - other than capitalism/neo-liberalism which structures social relations. Moreover, eco-feminism answers Schlosberg's critique of environmental justice: that it fails to consider ecological justice alongside environmental justice. As a strategy, or campaign, eco-feminism requires revisions to both how society relates internally, and how it relates to its environment, seeing these relationships as interlinked and impossible to be addressed in isolation, without negatively harming the other. Originally the two strands of thought which made up eco-feminism came from essentialist and constructivist traditions. Essentialism, which argued that women have innate qualities which predispose them to be more sympathetic with the environment, has not gained widespread support and has caused many to question the appropriateness of eco-feminism itself. It could be argued that there are biological essentials which distinguish women from men, particularly with regard to their capacity to bear children. Women are more active, and better represented, in grass roots environmental campaigning than in decision making positions (see Table 2), and, when interviewed, frequently cite their transition to motherhood as a key reason for their increased environmental awareness. One woman, interviewed for research on women's environmental campaigning, explained one the

motivations behind her campaigning against an incinerator in South Wales (she set up PAIN: parents against the incinerator ‘with a bunch of mums over cups of tea’) as having a baby which ‘changed her life, previously not much concerned with environmental problems’. (Buckingham, 2006:86). Whether it is the biology which affects these women’s attitudes, or the social factors which result from the biological act of bearing children, is open to question.

Arguments based on such transitions which may have an impact on their relationship to nature, which could not be argued for any other social group, have not sat easily with arguments that it is women’s social exclusion which places them in a particular relationship with nature. Contributory factors to this exclusion include discrimination in work which results in the average pay for women being lower than for men (a point developed in Chapter 3) and in there being an asymmetrical distribution of jobs where high status, professional jobs are dominated by men and low status, routine jobs are dominated by women. Positions of power – whether in the board room of companies, in government and elected offices and even in senior positions in environmental non-governmental organisations (ENGOS) – are heavily dominated by men, as Tables 1 and 2 demonstrate. This is likely to have an impact on how decisions are made (Bhattar, 2001). Although it is not possible to establish a causal link, it is worth noting that in countries with relatively high proportions of women as legislators, there is also a greater emphasis on sustainability, as cursory analyses of Welsh, Swedish and Norwegian policy confirms. Sweden was the first country worldwide to introduce a quota system to increase the number of women in Parliament, and was the first

country to have reached gender parity in its representation. In the devolved government in Wales, 56% of its Cabinet appointments were women in 2005, it was also the only UK legislature which had a statutory ‘sustainable development’ policy. A Commonwealth Secretariat document suggests that ‘even a few women in the corridors of power lead to a more participatory, less autocratic style of government (Commonwealth Secretariat, 1998) and it is, therefore, tempting to conjecture that such a critical mass of women can instigate change. These unbalanced divisions of labour in paid work are reflected in the home, with the bulk of domestic work still being undertaken by women (cooking, cleaning, shopping and caring). Issues such as relative poverty, and exposure to environmental problems and choices through paid and unpaid work result in women experiencing environmental problems more acutely than men for socio-economic reasons.

Table 2.1: Percentage of Women in Decision Making Positions in Europe and the USA

Institution	% Women
Members of the European Parliament ¹	28%
Members of national parliament, EU average ¹	23%
Members of EU upper house legislature ¹	21%
US Senators, 2005	14%
Board members of Europe’s top 200 companies, 2004 ²	8%
Executive Directors, FTSE 350 companies ²	3%

Non-executive directors, FTSE 350 companies ²	10%
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Sources: 1: European Commission, Employment and Social Affairs 2004; 2: Deloitte and Touche LLP, 2006

Table 2.2: Gender profile of major UK environmental organisations, 2004-2005

Organisation	Chief Executive	Chair	Board of trustees
Council for the protection of rural England	Male	Male	Male president, all 5 vice presidents male; all 5 national executives male.
Friends of the Earth	Male	Male	9 male, 4 female
Greenpeace	Male	Female	All male
National Trust	Female	Male	9 male, 2 female
Royal Society for the Protection of Birds	Male	Male	Key positions male
WWF UK	Male	Male	11 male, 2 female

Source: Buckingham, 2007:76

Eco-feminist arguments have been particularly concerned to ensure that it is societies' attitudes towards both women and nature, which must be considered in parallel, which

must be taken into account if, in the words of Schlosberg (who does not consider gender or eco-feminism) the gap between environmental and ecological justice is to be bridged. Andrea Nightingale, in a post-structuralist analysis of the relationship between gender and environment argues that as long as the environment remains the focus for attention, as it appears to be within mainstream environmental debates, then, in the face of impending 'risk' "it is difficult to make a clear argument about why we need to care if men and women have different experiences and knowledge of that risk". (Nightingale, 2006: 170) Through her work in Nepal's community forests, Nightingale proposes that 'gender' and 'environment' are mutually constituted, and that attention to the ways in which gender is 'performed' "is crucial for understanding how environmental issues come to be environmental in the first place." (Nightingale, 2006: 172) For example, when environmental problems are considered to be more important than social inequalities, strategies taken to address these problems can make these social inequalities worse. Nightingale has noted in Nepal how the social practices of leaf litter collection are gendered; where these are now being seen as ecologically destructive this has led to changes in practice. However, without the involvement of women in this negotiation, or the involvement of men in the collection, the revised practice necessitates women in more time consuming and physically more intensive work, which in turn reinforces gender inequality. Changing ecological practice without addressing gendered practices, then, can be problematic (Nightingale, 2006: 176-7).

At the root of any eco-feminist approach, is an understanding that key social structures (that is the power relationship between males and females) must be reformed if there are to be significant environmental gains.

Buddhism and Deep Ecology

Dobson's 'ecologism' referred to earlier represents such a departure from the globally dominant way of seeing the world, that, to anyone born and raised in the neo-liberal capitalist West it is likely to seem an unrealistic dream (or nightmare, depending on one's point of view). This is the power of naturalising discourse. What, then, inspires people to consider a radically different alternative? For Westerners uncomfortable with the prevailing ideology, indigenous cultures and alternative spiritual traditions have provided some of this inspiration. Arne Naess (1972) distinguishes 'deep ecology' (incidentally, where this term originates) which is interested in the intrinsic value of nature, from 'shallow ecology' which is more akin to Dobson's description of environmentalism, and which is defined by its anthropocentrism. This does not, however, answer the question of how any human being might be able to think in a way that is not human-centred. Perhaps a better way of defining the deep ecology movements is by their reference to an holistic world view; indeed the definition of ecology is the study of inter-relationships between plants, animals and the environment in which they (we) live (Owen in Dobson, 2000, p 40).

One strand of the deep ecology – or deep green – critique of current environmental practice under neo-liberalism comes from Buddhist influences, both in the West and the Global South. The work of Gary Snyder from the 1960s onwards drew together Buddhist considerations of nature as a refuge, of respect and compassion for all (human and non-human) living things, the practice of ahimsa – the absence of desire to kill or harm and the interconnectedness of all life, with indigenous American approaches and an emerging radical environmental movement (Kaza, 2006). Snyder himself describes the future coming together of different philosophies in a rather fine geographical metaphor which bears quoting in full as it also relates to the paradigm shifts, power of discourse and the nature of myth introduced earlier in this chapter. It is worth taking some time to understand what he is saying.

“Measured in centuries and millennia, it can be seen that philosophy is always entwined with myth as both explicator and critic and that the fundamental myth to which a people subscribe moves at glacial speed but is almost implacable. Deep myths change on something like the order of linguistic drift: the social forces of any given time can attempt to manipulate and shape language usages for a while, as the French Academy does for French, trying to stave off English loanwords. Eventually languages return to their own inexplicable directions.

“The same is true of the larger outline of world philosophies. We (who stand aside) stand on the lateral moraine of the glacier eased along by Newton and Descartes. The revived Goddess Gaia glacier is coming down another valley, from our distant pagan past, and another arm of ice is sliding in from another angle: the no-nonsense

meditation view of Buddhism with its emphasis on compassion and insight in an empty universe. Someday they will probably all converge, and yet carry (like the magnificent Baltoro glacier in the Karakoram) streaks on each section that testify to their place of origin. Some historians would say that “thinkers” are behind the ideas and mythologies that people live by. I think it also goes back to maize, reindeer, squash, sweet potatoes and rice. And their songs.

“It is appropriate to feel loyalty to a given glacier; it is advisable to investigate the whole water cycle; and it is rare and marvellous to know that glaciers do not always flow and that mountains are constantly walking.” (Snyder, 1990, pp60-61.)

Snyder’s approach stresses a holistic view of nature, and human beings’ place in it, and the importance of the bioregion as the most logical unit of habitation. Reflecting on the bioregion, first introduced earlier in the chapter, Snyder relates the concept to the culture areas of the ‘major native groups of North America’ (Snyder, 1990, p37).

A contemporary Buddhist monk and peace campaigner, Thich Nhat Hanh, exiled from Vietnam during the Vietnam War and now living mainly in France, has interpreted Buddhism’s precepts, or ‘trainings’ as:

- Compassion (not to kill directly, or indirectly by complicity).
- Generosity and loving kindness (sharing time, energy and resources and a determination not to steal).

- Responsible sexual relations (not to exploit other human beings, or break up families).
- Loving speech and deep listening (not to harm by word or thought, and to listen without judgement, particularly as a basis for reconciliation).
- Good physical and mental health (particularly not to imbibe/use toxins and intoxicants which would range from pesticides and fertilisers, growth hormones, alcohol, drugs, caffeine etc).

Thich Nhat Hanh, 1992:

While these precepts relate to personal behaviour, and the core of Buddhist practice is personal liberation, achieved by self-practice, it is clear that if they are followed through, they have beneficial implications for non-human nature, and require that the practitioner behaves respectfully to all nature: human and non-human. Box 3 replicates part of a statement drafted in 1992 as a way forward for Buddhism in Vietnam. The extract which focuses on Vietnam's natural heritage is drawn from a wider statement to the Vietnamese government encouraging religious freedom in Vietnam.

Box 2.3: Protecting our Nation's Nature-Heritage (Preserving our Mother's Body)

“As Vietnamese students of the Buddha, we make a vow to protect the wholeness of the territory of Vietnam, which means to protect the soil, the mountains, the forests, the rivers, the ocean and the air. We vow to do everything that we can do to protect

the environment, to protect every species of animal and plant life in the country of Vietnam. We vow to stop the pollution and destruction of the nature-heritage of Vietnam. As Vietnamese Buddhists we call on our compatriots, our government, and all those who are friends of Vietnam anywhere in the world to make a contribution to this task of protecting the Vietnamese environment. We expect that efforts to develop agriculture and industry, investments abroad, and the exploitation of resources will be founded on the principle of protecting our nature-heritage.

“The protection of life is a practice observed by all Buddhists. Life here means not only the life of human beings, but also the life of all animal, plant, and mineral species. The Diamond Sutra teaches that the human race cannot exist if there is destruction of the animal, plant, and mineral species. Anyone living anywhere on this planet, if they are aware of the state of our planet Earth at this present time, will look at the world and act in accord with this principle.

Thich Nhat Hanh, 1992:141-2

The sentiments expressed in Box 3 are particularly salient when the damage inflicted on Vietnam and Laos from the 1950s to 1973 when the last US combat troops withdrew, during which time the use of toxic defoliants, Napalm and Agent Orange by the US caused widespread lethal pollution. Moreover, when the current expansion of biofuel production in SE Asia described earlier in the chapter is taken into account, Vietnam is arguably under greater environmental threat now than in 1992, when this was written.

Buddhism has inspired other environmental and social movements in South and SE Asia. The Sarvodaya Movement in Sri Lanka emanates from the Mahayana Buddhist ‘principles of compassion, generosity, and personal contentment.’ It seeks a ‘full scale, non-violent social revolution that will fundamentally reshape modernization both in [Sri Lanka] and throughout the developing world.’ (Gottlieb, 2006). The movement is ethnically inclusive in a country riven with ethnic divisions between Buddhist, Tamil and Muslim communities, and challenges a government driven by development imperatives.

In Europe, Fritz Schumacher inspired by Buddhism, advocated an holistic economy based on the principles of simplicity and non-violence, the purpose of which would be to maximise human well being with the minimum of consumption. Such an equation both fairly distributes limited and finite resources and achieves optimum efficiency. His book ‘Small is Beautiful’ published in 1974 has inspired a number of influential organisations, including ‘Practical Action’ and the Schumacher Society which have developed practical, low technology/low cost strategies for communities in the Global South (Practical Action used to be called ‘Intermediate Technology’) and education programmes. The Schumacher Society also publishes work designed to promote alternative strategies for improving the environment, one of which is written by the founders of the social enterprise: BioRegional Development Group, and advocates a rethinking of living in bioregional communities in the age of rapid mobility and information communications technologies (Desai and Riddlestone, 2002).

These alternative systems of thought, which have inspired and are utilised by people and groups in the Global North, have been adapted by their exposure to human rights discourses, information and communications technology and the indigenous cultures of Australia and North America, as Snyder's metaphor of the glaciers has already illustrated in Box 3. The value of place and a respect for natural boundaries, for example, the bio-region, as explained earlier, is combined with the ability of modern technologies to enable protest groups to mobilise rapidly against perceived environmental damage; a development which will be examined further in Chapter 3 which follows. In such ways, then, do environmental philosophies adapt and travel: products of their time and place and forged through encounters with power, and between different cultures.

Summary

Perhaps the best way to summarise this chapter is for you to examine your own views of nature and the environment in the light of where, and with whom, you grew up, your education, the newspapers and web sites you refer to and the TV programmes you watch. It is only through reflecting on how your own perspectives are created, that you can effectively gain control over them and hence challenge them and change.

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