

What does culture have to do with the global environmental crisis?

The last decade has seen a dramatic increase in the attention paid by social scientists to environmental issues, and a gradual acknowledgement in the wider community of the role of social science in the public debate on sustainability. At the same time, the concept of 'culture', once the property of anthropologists, has gained wide currency among social scientists. This book shows how an understanding of culture can throw light on the way environmental issues are perceived and interpreted, both by local communities and within the contemporary global arena.

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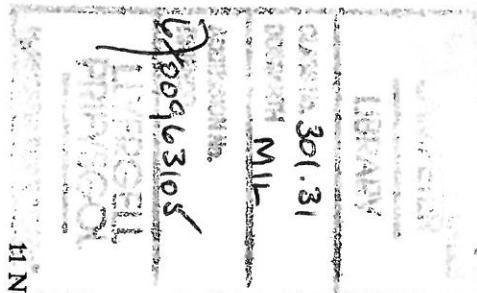
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Environmentalism and Cultural Theory

Exploring the role
of anthropology in
environmental discourse

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To Morse,
who arrived at the beginning
and left at the end

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Different societies, and different ages, re-invent Nature in their own image, sometimes benignly, sometimes with hostility, but rarely with indifference.

(Ellen 1986: 9)

I suggested, in Chapter 1, that anthropology's contribution to environmental discourse might take two forms. Through its tradition of studying human culture in all its diversity, anthropology can provide insights into how people understand and interact with their environments. In this sense, anthropology is the study of human ecology, and its relevance to environmental discourse is as great as that of any branch of ecology, if not greater, given that human activities are taken to be the major cause of environmental damage. Anthropology can also contribute directly to the development of environmentalist thought, by examining environmentalism itself as a cultural phenomenon, as a particular way of understanding the world. Chapter 2 established the theoretical background for the first of these tasks, by considering how anthropologists have understood the role of culture in human-environment relations. Chapter 3 examined the theoretical background for the second task, by showing how an anthropological analysis of environmentalism as a cultural phenomenon differs from the types of analysis offered by other social sciences.

In this chapter the two tasks are combined. A range of different ways of understanding the environment are compared with one another and with ideas drawn from western environmentalist thought. The purpose of this cross-cultural comparison is to build conceptual bridges (Richards 1992a: 153) between environmentalism and other ways of knowing the world, in the hope of under-

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standing both more clearly. The discussion begins by examining a misunderstanding referred to in Chapter 1, the environmentalist myth that non-industrial cultures are ecologically benign.

THE MESSAGE OF THE KOGI

In 1990, a BBC television documentary enabled the Kogi people of Colombia to give a message to the world.¹ The Kogi live on the Sierra Nevada de Santa Marta, a mountain rising to nearly 19,000 feet above the city of Santa Marta in northern Colombia. They are descendants of the complex pre-Colombian society which was gradually destroyed following the Spanish invasion of the early sixteenth century. Their oral tradition tells how refugees fled from the consequences of the invasion high into the Sierra, where the Kogi continue to live under the guidance of their ritual specialists, the Mamas (Ereira 1990: 135-44).

According to Kogi tradition, the world was created by the Mother, with the Sierra at its centre. The Mother's son Serankua created humans. 'They were made to look after the world, to care for everything in it. Animals and plants were placed not under their dominion but in their care' (Ereira 1990: 118). Later, Serankua created

another kind of human being, a Younger Brother to the original people... a creature with a butterfly mind, which paid no attention to the Mother's teaching.... This Younger Brother was not to remain in the Sierra: he was ejected. He was given a different way of knowing things, a can-do technological knowledge, and exiled to lands designated for him across the sea.

(Ereira 1990: 118)

The Kogi see themselves as the Elder Brothers, who have continued, through their rituals and offerings, to care for the world. The Spanish invaders and their descendants are the Younger Brothers, who have returned from their designated lands across the sea and who exploit the Earth's resources with a careless disregard for the consequences of their actions. The Elder Brothers' concern is portrayed in an interpreted Kogi divination:

A human being has much liquid inside. If the liquid dries up

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we fall with weakness. The same thing can happen to the earth, weakness makes you fall, weakness.

So the earth today catches diseases of all kinds. The animals die. The trees dry up. People fall ill. Many illnesses will appear, and there will be no cure for them. Why?

Because Younger Brother is among us, Younger Brother is violating the basic foundation of the world's law. A total violation. Robbing. Ransacking. Building highways, extracting petrol, minerals.

We tell you, we the people of this place, Kogi, Asario, Arhuaco: that is a violation.

(Ereira 1990: 196)

Until recently, the Kogi had felt no need to inform the Younger Brothers of their concern, but they had observed that the highest parts of the Sierra were drying out and the vegetation was dying. If the Sierra, the heart of the world, was dying, then everything would surely end.

So now I am sending this message over there. I want to give some advice to the Younger Brother. If they go on like this, they will see what will happen. I do not know yet on which day the world will end. But from being plundered so much, of oil and everything else, it will end.

(Ereira 1990: 227)

The Kogi message created a brief but noticeable flurry of excitement in the media. The film maker gave several radio interviews, and some of the questions and comments contained a hint of disbelief. A similar degree of suspicion could be detected in informal conversations among my fellow anthropologists. Some, it seemed, found it difficult to accept that the Kogi could be as isolated, or as primitive, or as ecologically wise, as they appeared.² The source of these suspicions is of interest. The Kogi appeared suspect because they seemed to fit too neatly (for the sensibilities of anthropologists, at least) a popular western stereotype. If environmentalists had wanted to invent a primitive society to bring an important message to the world, they might well have created a people very like the Kogi.

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THE MYTH OF PRIMITIVE ECOLOGICAL WISDOM

The understanding that non-industrial peoples possess a kind of primitive ecological wisdom is widely held within industrial society (Rayner 1989), and has a prominent place in environmentalist thought. It is 'part of civilized humanity's image of the noble savage' (Peoples and Bailey 1988), part of the romantic tradition which idealizes the natural, and from which some of the values central to environmentalism are derived (see Thomas 1983: 301-2). I suggested in Chapter 1 that, within environmentalist thought, the model of primitive ecological wisdom has the character of a myth, in the sense that it is dogmatically asserted. As the work of Douglas (1972) and others has indicated, this is to be expected of ideas that support cherished theories, arguments and institutions. The myth of primitive ecological wisdom is not just an incidental part of the romantic package carried by some environmentalists. It is fundamental to the radical environmentalist critique of industrialism, for without the assumption that non-industrial societies live sustainably in their environments, there would be no grounds for arguing that industrialism is the cause of environmental destruction.

The logic of this argument would lead us to expect all non-industrial ways of living to be regarded as ecologically sound, but there is a tendency for certain societies and kinds of society to be presented far more prominently than others as models for a better, environmentally benign, way of life. While hunters and gatherers, shifting cultivators and rainforest peoples are proclaimed as 'paragons of ecological virtue' (Ellen 1986: 10), settled agriculturalists and transhumant nomads are virtually ignored. This is the result of several selective pressures.

First, in accordance with the romantic tradition of idealizing the natural, the most ecologically sound ways of living are assumed to be those that conform most closely to what is seen as a natural existence. In turn, the most natural ways of living are assumed to be those that appear to transform the environment least, that leave it as close as possible to its raw state. This has focused attention on the hunting and gathering communities, whose activities do not appear radically to modify their environments (Ellen 1986: 10). We now know that this is a false impression, partly because hunting and gathering often incorporate practices that have substantial long-term impacts on the environment, such as the systematic

burning of vegetation to improve conditions for game species, and partly because most contemporary hunter-gatherers do not practise a 'pure' hunting and gathering mode of subsistence (see below). Nevertheless, the idealized image persists, and hunter-gatherers are identified as the archetypal primitive environmentalists.

Second, because the image of primitive ecological wisdom is born of a comparison with industrial practice, it tends to be shaped by issues of concern within industrial society. For instance, intensive agriculture has been a target for environmentalist criticism for several reasons: because it requires the use of chemical fertilizers and pesticides which are seen as polluting and damaging to health; because it converts diverse landscapes into monocultures, destroying wildlife habitats in the process; and because, particularly under large-scale bureaucratic control (in the European Union, for instance), it often produces a surplus, which is seen as wasteful. Shifting cultivation by non-industrial peoples is often highlighted as an ecologically sound mode of subsistence because it differs in appropriate ways from intensive agriculture. It typically allows the soil to recover, often for several seasons, before re-use, and uses the land's natural fertility, contained in the vegetation growing on site, rather than adding nutrients produced elsewhere. In addition, the plots are small and several different crops may be grown in rotation with fallow periods. The result is a diverse environment which apparently provides what people need without waste and without damage to other forms of life.

Third, proximity to industrial society, in both an historical and a geographical sense, has directed the spotlight towards some non-industrial societies rather than others. Modern American society, with its high levels of consumption (Redclift 1984: 29, 35) is seen by many environmentalists as the embodiment of all that is ecologically unsound (see, for instance, Holmberg *et al.* 1993: 8). The most apt and striking contrast, for those seeking an ideal model, is provided by the indigenous North American peoples, both because their ways of living were destroyed and supplanted by modern America, and because their continued presence in American society provides a ready source of alternative principles. Uddall referred to American Indians as the 'first ecologists' (1972: 2). The westward expansion of white America is seen by environmentalists as having replaced a range of relatively peaceful, ecologically benign cultures with an aggressive, ecologically destructive one. Thus the ideals of contemporary environmentalism can be

linked to the events of nineteenth-century America, in much the same way as the ideals of racial equality can be linked to the history of the slave trade. At the same time, the published words of American Indian philosophers are seen as a source of environmental wisdom (see Neihardt 1972 [1932], Erdoes 1976) and icons from American Indian mythology, such as the Rainbow Warrior,³ have been adopted by environmental activists.

Fourth, and following from the last point, environmentalists tend to advocate a greater respect for the indigenous peoples of any region, than for those inhabitants whose origins lie elsewhere. The aboriginal societies of North and South America, of Australia, Malaysia and the Pacific Islands, are revered as the rightful, most appropriate guardians of those regions' resources. The members of the radical environmental group Earth First! identify with the original inhabitants of whatever region they are operating in. In North America, they look to American Indian spirituality as a way of interacting with the rest of the natural world (Taylor 1991: 259). In Britain, Earth First! activists look back to the pre-Christian era as 'a time when people were more respectful of the Earth' (Burbridge 1994: 10), and seek to protect archaeological sites threatened by development.⁴ One reason for identifying with pre-Christian peoples is that some Earth First! activists blame the Judeo-Christian tradition for what they see as the alienation of modern human society from the rest of the natural world (Taylor 1991: 258). But the greater respect for indigenous peoples shown by environmentalists in general might be seen, again, as part of the romantic tradition which idealizes the natural, and which is echoed in contemporary scientific ecology, by the greater value placed on indigenous species over introduced species, and on pristine natural habitats over habitats altered by human effort.

Finally, environmentalist thought has focused more on the human inhabitants of some ecosystems than of others, because those ecosystems have themselves been the centre of environmentalist concern for various reasons. The rainforests, for instance, have been seen by environmentalists both as particularly endangered and as particularly important. They are seen as endangered because of the speed with which they are being destroyed (IUCN *et al.* 1991: 124). They are seen as important because they help to stabilize both the climate (by taking in carbon dioxide) and the soil (by preventing erosion), because they hold the greatest biological diversity (biodiversity) of any ecosystem, because they might hold

many undiscovered medical cures, and so on. In seeking to conserve the rainforests, environmentalists have drawn attention to those communities who live there apparently without destroying them, such as the Indians and the rubber-tappers (*seringueiros*) of Amazonia (Hildyard 1989, Cowell 1990), and the Penan of Malaysia (Manes 1990: 122-3), and have contrasted their modes of subsistence with the destructive commercial pursuits of cattle ranchers and commercial timber companies. On the other hand, the ecological importance of tropical grasslands has had a much lower profile in environmental discourse, and environmentalists have therefore seen little need to focus attention on the human communities (mainly nomadic pastoralists) who have traditionally used these ecosystems.

If the understanding that non-industrial societies possess a primitive ecological wisdom has, for environmentalists, a mythical status, there might seem little point in subjecting it to empirical testing. The results, if they happen not to support the myth, might fall on deaf environmentalist ears. But the effort is worth making if, as I have suggested, anthropology is to contribute to the development of environmentalist thought. After all, the point of testing the myth is not to suggest that non-industrial societies have nothing to teach the industrial world about how environmental responsibilities might be defined and implemented. It is to demonstrate the value of a more sensitive awareness of how human societies understand and interact with their environments. In this enterprise, the potential roles of anthropologists as students of human ecology and as theorists of environmentalism come together.

Questioning the myth

Anthropologists have already said quite a lot about the myth of primitive ecological wisdom; their views have occasionally even reached the national press (Smith 1995). The central argument in Ellen's 'exemplary demystification' (Rayner 1989: 1) was that 'green primitivism' is based on an illusion created by several factors. Certainly, some cultures seem to idealize harmony with the environment (Ellen 1986: 10), but non-industrial communities are often held in a state of apparent balance with their environments by factors other than their ideology. For instance, small populations do not exert much pressure on the environment, but

they may be kept small by factors other than deliberate planning, such as infertility and disease. Douglas described the acute concern of the Lele that their population was dying out due to attacks by sorcerers (1972: 137). Even when family size and the spacing of children are deliberately controlled, it is more likely to be for practical reasons than to avoid population pressure on the environment, and it may be achieved through abortion or infanticide (Ellen 1986: 11).

Relative isolation is another factor that helps to minimize the pressure exerted by some communities on their environments. People who interact regularly with outsiders are often involved in patterns of exchange that require them to produce a surplus of wealth. An isolated community needs to provide only for its own subsistence, and the absence of any incentive to produce more may keep the economy sustainable (Ellen 1986: 12). On the other hand, people who might wish to produce more may be prevented from doing so by a limited technology. Silfioe wrote of the Wola people of the New Guinea Highlands, 'It is their agricultural technology, coupled with a modest population density, rather than their cultural ideology, that protects the Wola environment in the long term' (1993: 172).

In addition to the argument that the apparent harmony between some non-industrial societies and their environments is due to factors other than their ideologies, several anthropologists have pointed to incompatibilities and misunderstandings between environmentalism and specific non-industrial cultures. Harries-Jones described the grievances of Ontario Indians against environmentalists who are said to have misappropriated Indian culture, by transforming 'Indian respect for land and communitarianism into a cult-like vision of new-age "spirituality"' (1993: 49). Feit demonstrated the incompatibilities between attitudes to animals expressed by animal rights activists and those traditionally held by Cree hunters (1991).

The combined message of all these arguments and observations would seem to be that non-industrial peoples do not think like environmentalists. Some of them may live their lives in ways that are environmentally sound, but ecological balance, where it exists, is an incidental consequence of human activities and other factors, rather than being an ideal or a goal that is actively pursued. In other words, the practices in which some non-industrial peoples engage may be environmentally benign, but their cultures, their

ways of understanding the world, are not. If this is a valid inference from anthropologists' observations on the myth of primitive ecological wisdom, it could be a highly significant, if rather pessimistic, contribution to environmental discourse. Environmentalists look to non-industrial peoples, not only for models of ecologically sound practice, but also for appropriate ways of thinking about the environment. But if, in fact, no appropriate ways of thinking exist in the human cultural repertoire, if non-industrial peoples are prevented from destroying the environment, not by their ideologies, but by conditions beyond their control, then the reality facing the environmentalist cause looks considerably less favourable.

However, the conclusion that no environmentally benign cultures exist outside the industrial world is just as much a misleading generalization as is the myth of primitive ecological wisdom. The best way of demonstrating this is by examining a range of cultural perspectives on the environment, and considering how far the assumptions on which these perspectives are based, and the actual and potential values generated by them are compatible with those of environmentalist thought.

DIVERSE CULTURES, DIVERSE ENVIRONMENTS

Cross-cultural comparison is a tricky exercise; the discussion on cultural relativism, in Chapter 1, indicated some of the difficulties. Essentially, comparing different cultures means translating diverse ways of understanding the world into a single framework which is itself, of course, yet another cultural perspective. It is easy to distort the cultures being compared in the process of making them fit the comparative framework. Some would no doubt argue that distortion is inevitable in the act of translation itself, that we change the meanings intended by others simply by expressing them in a different language. These difficulties need to be acknowledged and addressed, but we should not allow them to become obstacles to cross-cultural analysis. Communication across cultural boundaries is an everyday reality, and lamenting on its limitations is not the best way for anthropologists to contribute to contemporary public discourse. A few categorical statements at the outset should help to clarify any confusion that might arise from the following comparative analysis.

As the model of culture presented in Chapter 2 implies, I do not regard a distinction (much less a dichotomy or an opposition)

between nature and culture as a useful analytical device. On the contrary, I see nature as the overarching scheme of things to which culture and everything else belong. Some cultures, however, including that in which I have been brought up, do appear to recognize a fundamental opposition between nature and culture, or at least to make distinctions which anthropologists have felt justified in interpreting in these terms. In the following analysis, anything that resembles an opposition between nature and culture belongs strictly to one or other of the cultural perspectives being compared, and not to the analytical framework.

If a distinction between nature and culture were being used as an analytical device, then it would be appropriate to refer to the cultural perspectives being compared as different ways of understanding nature, as Ellen did in the quotation that opens this chapter. Instead, I refer to them as ways of understanding the environment. But I also acknowledge that some of the perspectives discussed below do not translate easily into many people's commonsense understanding of 'the environment'. In particular, some of the forces identified as existing in the environment, such as witchcraft and anger, are human, while others, such as God and the ancestors, would normally be glossed as spiritual. Is it not a misrepresentation of the perspectives being compared to refer to these forces as part of the environment?

I would argue that it is much less of a misrepresentation to regard these forces as environmental than to present them in more conventional ways. Formulating analytical definitions of any category is difficult, because no term is culturally neutral. But I suggest that 'the environment' can be defined in a way that is more widely applicable than categories such as nature and culture, spiritual and non-spiritual. As Ingold pointed out, an environment is that which surrounds (1993: 31; see Chapter 3, above). Identifying an environment therefore entails making a conceptual distinction between it and whatever is surrounded. But this is the *only* conceptual distinction it entails. Identifying an environment does not require us to distinguish between the human and the non-human, the material and the spiritual, the dead and the living. I suggest that virtually all people distinguish themselves, as individuals, from the things that surround them, and these things include their fellow human beings, gods, spirits, animals, plants, and whatever else enters their perception. Defining the environment simply as 'that which surrounds' makes all relations

ecological. In the following analysis, I compare the ways in which people understand the phenomena that surround them and impact on their lives. It is therefore appropriate to refer to the knowledge described as knowledge of the environment.

The choice of examples for comparison has been governed by several factors, some of which will become clear as the analysis proceeds. I have tried to include some of the cultures that are commonly picked out by environmentalists as ecologically benign (such as hunter-gatherers and North American Indians), and some drawn from a category, settled cultivators, that have received little such attention. I have also drawn on the work of fellow anthropologists and other scholars who have had a particular interest in understanding the environmental knowledge of the communities they have studied. This is partly for convenience; it is easier to accept another analyst's interpretation than to start from scratch with 'straight' descriptive material. But it is also because I assume that, when the purpose of the analysis is specifically to understand people's knowledge of their environment, it is likely to be more culturally sensitive than when environmental knowledge is being presented, say, as a background to something else, such as an analysis of the kinship system or political organization. One example, Kasigau, is included because it is familiar to me as my own fieldwork community.

Hunter-gatherers in a giving environment

For many years, hunter-gatherer⁵ societies were generally seen, both within and outside anthropology, as those who fulfil their material needs from wild sources (Woodburn 1980: 95; 1982: 432). Associated with this image was the assumption that hunter-gatherers modify their environments to a lesser degree than societies using other modes of subsistence, and that, of all human societies, they therefore conform most closely to a 'natural' existence. Within anthropology, this assumption led to contemporary hunter-gatherers being treated as sources of information on the origins of institutions (for instance, Durkheim and Mauss 1963), while outside the discipline it helped to generate and sustain the myth of primitive ecological wisdom. Although this image of hunter-gatherers has persisted in environmentalist thought, it has been replaced in anthropology by a far more sensitive understanding based on detailed ethnographic accounts.

It has been argued that it is no longer satisfactory to distinguish contemporary hunter-gatherers from other societies in terms of their mode of subsistence (Bird-David 1990, 1992b). Ethnographic descriptions produced during the past twenty years or so indicate that hunter-gatherers fulfil their needs from many other sources as well as hunting and gathering. Some groups appear to have a history of sporadic cultivation interspersed with hunting and gathering (Keesing 1981: 122). Some engage in trade or take wage employment with neighbouring communities (Harpending 1976, Hart 1978). Some groups depend simultaneously on several sources. The Nayaka people of the Gir Valley in southern India, whose economy has been described in detail by Bird-David (1992b: 24-38), have for years combined hunting and gathering in their forest environment with rice and coffee cultivation, paid employment on a coffee plantation and, more recently, for a timber company. For some hunter-gatherers, hunting has long since ceased to be a purely subsistence activity. In particular, the fur trade gave indigenous hunters of North America a role in a worldwide economy (and consequently made them vulnerable to fluctuations in the international fur market; see Wenzel 1991).

The knowledge that hunter-gatherers use a variety of subsistence techniques casts doubt on the distinctiveness of hunting and gathering as a type of economy, but Bird-David has argued that hunter-gatherer communities can still be seen as distinctive, in the manner in which they understand and relate to their environment (Bird-David 1992b: 38ff.). Her argument focuses particularly on those hunter-gatherers who have what Woodburn called 'immediate-return' systems (Woodburn 1980). In other words, they tend to consume whatever they need when it is available to them rather than storing it for future use. Drawing on her own experience among the Nayaka, and comparative material on the Mbuti of Zaïre and the Batek of Malaysia,⁶ all of whom have immediate-return systems, Bird-David argued that these groups trust their environments to fulfil their needs by giving freely to them without imposing obligations or asking for any return (1990: 190-1). She also showed how this 'cosmic economy of sharing' (1992a) permeates Nayaka social relations. Whatever is asked for is expected to be given freely. Individuals who use items 'belonging' to others (in the specific Nayaka sense) without first asking permission, cause offence by depriving the 'owners' of their right to give (1990: 193).

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A giving environment can be seen as supporting a hunting and gathering economy by providing the wild plants and animals needed for human survival. This is the conventional image of hunter-gatherer societies held by anthropologists and others. But there is nothing in the hunter-gatherers' own understanding of the environment to suggest that its generosity is restricted to these particular gifts. A giving environment might be expected to provide any kind of opportunity for people to meet their needs. It might, for instance, provide a nearby coffee plantation on which to earn money, and local stores from which to purchase items that do not grow wild in the forest. It might also provide a commercial market for things that were once collected for direct consumption alone, such as timber and animal hides. Thus, when hunter-gatherers engage in trade or cultivation or take paid employment to meet their needs, they are not acting in a manner contrary to their underlying ethos; they are taking the opportunities that their environment provides, in full accordance with their understanding that the environment will always provide what they need (Bird-David 1992b: 39-40). Bird-David suggested the term 'procurement' to describe the relationship between hunter-gatherers and their environment:

'to procure' (according to the *Shorter Oxford Dictionary*) is 'to bring about, to obtain by care or effort, to prevail upon, to induce, to persuade a person to do something'. 'Procurement' is management, contrivance, acquisition, getting, gaining. Both terms are accurate enough for describing modern hunter-gatherers who apply care, sophistication and knowledge; whose activities range from collecting what the environment gives to prevailing upon it, persuading it and managing it in order to get resources.

(1992b: 40)

The most significant general point to emerge from Bird-David's analysis of hunter-gatherer economies is that an economy, any economy, can be seen as having both cultural and technological components, and that it is the cultural component that makes an economy distinctive (see Gudeman 1986). In Bird-David's analysis, what distinguishes the hunter-gatherer economy is not so much its technological character – communities which have been classified as shifting or settled cultivators also engage in a variety of modes of 'procurement', including hunting and gathering. The

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hunter-gatherer economy is distinctive in that it depends upon a giving environment rather than some other kind.

This line of argument points to the possibility of dissolving the conventional classification of human economies (or human *ecologies*) in terms of technology (hunter-gatherers, pastoralists, shifting cultivators, settled agriculturalists, industrialists and so on) and characterizing them instead in terms of the type of environment on which they depend – the environment as understood by their participants. As well as giving environments, we might be able to identify passive environments, protective environments, fragile environments, vindictive environments and so on. By examining a wide range of human cultures, it might be possible to discover many more than the four 'myths of nature' associated by the surprise theorists with Douglas' grid-group model (see Chapter 3).

Like hunting and gathering, cultivation is beset by popular misconceptions. In the general sequence of cultural evolution, the beginning of agriculture is often taken to be the point at which human beings gained control over the environment. This is not just a popular notion. Within anthropology, the ethos of control has been seen as central to a cultivating mode of subsistence: 'The creed of gardeners, whether Western, Oriental or Islamic, is that by bringing nature under control they can direct its productivity to their benefit' (Sillitoe 1993: 172). If this is so, then the criterion that distinguishes a hunter-gatherer economy from one of cultivation could be that the first depends on a giving environment while the second depends on a passive environment amenable to human control. The ethnography, however, does not bear this out, as the next two examples indicate.

The Dogon: respecting the powers of the environment

The Dogon village of Tireli is located at the foot of the Bandiagara escarpment near the border between Mali and Burkina Faso in West Africa. The environmental knowledge of Tireli's residents, and particularly their relationship with trees, has been described by van Beek and Banga (1992). The village, a permanent settlement with a long history, is surrounded by bushland. Here the Dogon grow millet, their main staple crop, subjecting different parts of the bush (scre slope, flood plain, drift sand and fixed dunes) to different cultivation patterns. They also grow onions and tobacco,

keep sheep and goats, hunt bush animals and eat the fruit of several trees, though trees are more important for other purposes – as fuel, building and fencing materials, and as a source of medicines and manure (in the form of leaves) for their crops (1992: 59–68).

The bush is seen as dangerous, being the home of spirits, which may attack people, and of animals, rocks and trees, which are also feared because of their power. Indeed, the bush is the source of all power, knowledge and life: 'The bush is the *fons et origo* of everything that makes life possible, e.g. the animals all know the future; they have a perfect awareness of man's activities: his intentions, mistakes, transgressions and frailties, and know what the future holds for humans' (van Beek and Banga 1992: 67). Animals are used in divination, and hunting is a magical skill, since only strong magic can outwit the animals. Trees can confer life on human beings, through their medicinal powers, and wealth, but can also bring death if not treated properly. Trees and rocks are known to move around. In fact everything in the bush moves; the villages are the only fixed points in a fluid landscape. Subsistence depends on harnessing the power of the bush through work and turning it to human purposes, but in this very process, that power is diminished, 'used up and worn down': 'in changing things of the bush to things of men, the truly fertile, life-giving aspects are lost' (1992: 71).

Respect is an essential component of the relationship between the Dogon and their environment, as it is of their social hierarchy. If millet is not treated with respect, it will disappear from the granary; the consumption and cultivation of millet is subject to taboos. Trees are particularly respected; wood is not wasted and, wherever possible, small branches are cut. Wooden objects, apart from firewood, are not burned but left to deteriorate once they are no longer useful. The felling of a whole tree is a serious decision, never taken by one individual alone, and may require an offering. Some trees are planted, in the areas nearest the village, for fruit and shade (van Beek and Banga 1992: 69–70), but, for the most part, the Dogon take what they need from the bush without trying to replace it. Indeed, it would be inappropriate for them to try to replenish what is the source of all power and life.

Kasigau: at the mercy of environmental forces

Kasigau is a large hill rising out of the plain about 40 miles south of Voi in southern Kenya. I describe the community as it was in

1977–79, when I carried out fieldwork there. Five villages are situated on the lower slopes, and the villagers' fields, where they grow maize and a few other crops, occupy a band of flat plain around the base of the hill. Beyond this is bushland, parts of which are occupied by cattle ranches, a mining operation and Tsavo National Park. Most households keep chickens and goats and some have cattle; animals are both a store of wealth and a source of food. Education and the market economy of modern Kenya have brought new opportunities to the Wakasigau (people of Kasigau). Some find casual employment locally. Those with a secondary school education find work in offices in Voi or Mombasa, or as teachers in local primary schools. A very small proportion of the population with specialized training become civil servants, secondary school teachers or medical workers; some work in the commercial sector in Nairobi and occasionally travel further afield.

Life for the Wakasigau is often described by them as difficult, though easier for some than for others. Farming remains the basis of the economy, and the seasonal round of sowing, weeding, harvesting and grinding is seen as an endless chore. Food is far from scarce, but its production entails long days of hot, tiring work. In addition, there are many dangers to cope with. The rains might fail and ruin the harvest. Monkeys raid the maize crops and large animals occasionally trample them. Snakes, which are common, are a real threat to life. Goats and cattle might be lost to lions or to illness. Human ailments are a constant worry and an everyday topic of conversation. The changing times have brought new trials. Young people, it is often said, no longer respect their elders. They go to the towns and fall into bad company. Girls become pregnant before marriage. Assistance once given freely by kin now often has to be paid for.

The Wakasigau do not regard themselves as being in control of these events; they live in a world where things happen to them. Although a few specific illnesses are attributed to personal transgressions, such as incest or adultery, many misfortunes are blamed on sorcery, or spirits, or the anger of ancestors or living persons (cf. Harris 1978). Each village has its reputed sorcerers, whose crimes are usually thought to be motivated by jealousy. Spirits take possession of individuals and demand offerings, causing illness and misfortune if their wishes are not met. Chronic illness is sometimes taken as a sign that an ancestor feels neglected. All these agencies belong to what might be called 'traditional' Kasigau

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culture, and there is a range of traditional medicines and charms to guard against them.

By the time of my fieldwork, Kasigau had been influenced by Christianity for fifty years or more and the vast majority of the population had undergone Anglican baptism. About 10 per cent of adults (and a considerable but fluctuating number of children) claimed to be born-again Christians, some within the Anglican Church and others in several small non-Anglican fellowships (see Milton 1981, 1982). Some of those who claim to be Christian still use the traditional explanations of and cures for misfortune, but others, particularly the non-Anglican born-again Christians, have replaced the plethora of bad forces with a single one, Satan. Instead of sorcerers, wild animals and spirits being evil or dangerous in and of themselves, they are seen as instruments of Satan, against whom the only sure defence is a steadfast faith in God.

A second modern influence on Kasigau culture is the essentially British formal education that has been transmitted through the schools since the 1930s.⁷ Exposure to western science has led some people to express disbelief in sorcery, spirits and the harmful effects of anger. Those inclined to think in this way have largely abandoned traditional means of combating illness and misfortune, and instead use the modern health facilities provided in the least remote of the villages.

The presence of several different frames of reference within Kasigau culture is neatly illustrated by the following incident. A well-educated man, a devout member of the Anglican Church, was walking along a path that joined the two hamlets of his village when he was confronted by a cheetah. The animal did not attack, but in his surprise the man stumbled and cut his leg. No one could remember a cheetah having appeared in the village before. The 'traditionalists' assumed that some sorcery was at work, that the animal had been sent to cause harm. The non-Anglican born-again Christians prayed for the evil influence of Satan to leave their community, and assumed that the man's own faith in God had saved him from greater injury. The man himself thought it likely that bush fires on the plain below had driven the animal out of its normal range. He considered it nonsense to suggest that it had some evil intent because it was, after all, just an animal.

It would be impossible to identify a single Kasigau perspective on the environment. It has become a plural culture, with a variety of experiences and influences generating several diverse ways of

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understanding the world. But what many people in Kasigau share is an understanding that they are at the mercy of forces largely beyond their control. Traditionalists feel put upon by a range of personal agents. Herbal medicines, charms and ritual offerings give some protection against specific threats, but there are always others waiting in the wings. Christians see themselves as pawns in a struggle between good and evil. The most effective protection is a strong faith in God, but this is difficult to maintain in the face of worldly temptations, and in any case is no guarantee against misfortune, for the ways of God are a mystery. If Christianity is supposed to have ushered in a new era of human dominion over the natural world, there was little sign of it in Kasigau. If anything, Christianity brought a new fatalism; nothing happened except at God's command, and God's will was unquestionable.

Power and protection

The environment that dictates the fortunes of people in Kasigau is clearly very different from that whose powers are respectfully harnessed by the Dogon, and different again from that which generously meets the needs of hunter-gatherers. But all three environments share one important feature: they are all more powerful than the human communities that interact with them. It would be a mistake to see human beings as totally powerless in the face of these environments. The hunter-gatherers, as Bird-David pointed out (1992b), prevail upon, persuade and manage their environments in order to get what they need. The Dogon help to ensure their continued subsistence by showing the environment proper respect. The Wakasigau can employ both traditional and modern means for protecting themselves against attack from environmental forces, and they can put their faith in God, the most powerful of those forces. But in each case, the power of human beings to exert an influence on environmental processes is overshadowed by the environment's power in their lives; the balance of power lies with the environment, not with the people.

Compare this with the concern which, I have suggested, identifies a cultural perspective as environmentalist, the concern that the environment be protected through human effort and responsibility. This presupposes that people are in a position to protect the environment, that it is amenable to their protection, which implies that the balance of power lies with the people, not with the

environment. This can be illustrated using a brief description of the values and assumptions of nature conservation.

Nature conservationists: protecting a fragile environment

The nature conservation perspective is a familiar part of the cultures of many industrial societies, and is expressed through the words and actions of some of the most high-profile environmental organizations, some of which have a long history.⁸ Conservationists define the environment as 'nature', and the living part of nature as 'wildlife'. Nature is seen as separate from the processes and products of human activity, but not necessarily or universally separate, for in accordance with the myth of primitive ecological wisdom, the alienation of humanity from nature is seen as a consequence of industrial development: 'as social structures became more complex, and technologies improved, human beings were able increasingly to insulate themselves against nature' (Diamond *et al.* 1987: 325).

Insulation against nature made industrial societies blind to the impacts of their activities on the environment, but science has revealed the character and extent of these impacts. Populations of animals and plants have been reduced and many have become extinct as a consequence of human activity. Their habitats have been destroyed for development and through the effects of industrial pollution. But as Yearley pointed out (1992a: 143-4), science does not provide a moral basis for action. The nature conservation perspective depends on the integration of scientific knowledge with moral principles which derive from the values attached to 'natural' things. Nature is seen as inherently good; natural processes and circumstances are consistently valued more highly than those that result from human activity. Nature is at its most valuable when it is untouched by human hand. In selecting sites as nature reserves, conservation groups and authorities choose those that are closest to their 'original' state: primary woodland rather than secondary woodland, pristine peatland rather than areas that have had peat removed from them and have recovered. Wildlife species that are indigenous to an area are seen as more important than those introduced by people.

The most highly valued of all nature's characteristics is its diversity, which is seen as a source of spiritual and economic benefit to human beings (IUCN *et al.* 1991: 28). But this is not the only,

nor necessarily the most important, reason why conservationists value nature's diversity. The greatest possible variety of life is seen as beneficial to the process of evolution, to which human beings and all other life forms are assumed (on the basis of scientific knowledge) to owe their existence. The more diversity there is, the greater the chance that some life forms will be able to adapt to changing conditions, ensuring the continuation of life itself. Anything that threatens nature's diversity jeopardizes this process. The most serious human impacts on nature, in the minds of conservationists, are those that threaten nature's diversity; hence their concern over the disappearance of species and habitats.

The very fact that this is happening is taken by conservationists as an indication that nature is not capable of defending itself against humanity. The biosphere is finite; 'our planet is much smaller, and infinitely more vulnerable, than we ever thought', and threatened species are 'flashing warning lights'. The counter argument, that nature is, in fact, robust, is seen as an attempt to absolve our guilt and abdicate our responsibility (Diamond *et al.* 1987: 21-2). Conservationists therefore act on behalf of nature, and encourage others to do the same. They 'stand in for nature' (Yearley 1993) in those situations in which nature's interests would otherwise be ignored: they represent the whales in debates over commercial whaling, and argue the case on behalf of species whose habitats are threatened by land-use proposals. They also take over the management of natural processes when nature is failing to sustain itself against the impact of human activity.⁹ It would be misleading to suggest that conservationists see nature as totally powerless, for they often draw attention to instances in which nature appears to fight back – soil erosion and floods are nature's response to deforestation – but the balance of power, in the conservationists' perspective, rests with human beings.

Thus, while hunter-gatherers, the Dogon and the Wakasigan live in powerful environments, nature conservationists live in an environment that is fragile and needs their protection. This type of divergence of cultural perspectives was neatly demonstrated by Richards, studying Mendé cultivators in the Gola Forest region of Sierra Leone. After discussions with local students about conservation, he suggested that they try to translate conservation slogans into Mendé.

'Save Gola Forest', apparently the simplest slogan under con-

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sideration, was the one that caused the greatest difficulty. 'Save' was generally understood in the sense of to care for or to protect. In local thought that would imply to care for the forest as if it were someone's property.... But to Mende, forest is not property, nor should it be allowed to become so, because it is a basic resource upon which the whole society depends.

(Richards 1992a: 151)

The Mende were not in a position to protect the forest, not only because it was not property, but also because the forest, in their view, cared for and supported *them*, in the way that patrons support their clients. The closest local approximation to 'Save Gola Forest' was a phrase that meant 'get away from behind (stop living under the protection of) Gola Forest'. The forest was compared to a patron with too many clients, and the only conceivable way of 'saving' it was to relieve it of this burden (Richards 1992a: 151-2).

The cases discussed so far suggest that, in looking for non-industrial cultures that conform to the myth of primitive ecological wisdom, we should examine those in which human beings are seen as wielding some power over the environment. In her analysis of hunter-gatherer economies, Bird-David distinguished between the giving environment and the reciprocating environment (1990: 191). While the giving environment provides unconditionally, the reciprocating environment provides in return for the fulfilment of obligations. Thus a reciprocating environment is amenable to human influence. It was the reciprocal character of their relationship with their environment that brought North American Indian societies to the attention of environmentalists.

Indigenous hunters of North America: interacting with a reciprocating environment

In comparing traditional American Indian and European attitudes towards 'nature', Callicott made the following generalization:

most American Indians, lived in a world which was peopled not only by human persons, but by persons and personalities associated with all natural phenomena... the typical traditional American Indian attitude was to regard all features of the environment as enspirited. These entities possessed a

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consciousness, reason, and volition, no less intense and complete than a human being's. The Earth itself, the sky, the winds, rocks, streams, trees, insects, birds, and all other animals therefore had personalities and were thus as fully persons as other [*sic*] human beings.

(Callicott 1982: 305)

He based these general comments on a range of sources, particularly the words of the Sioux spokesmen, Black Elk (Neihardt 1972 [1932]) and Lane Deer (Erdoes 1976), and the observations of two ethnographers of the Ojibwa, Jenness (1935) and Hallowell (1960). The rationale of Indian environmental knowledge was that everything that has power has life, and everything that has life has spirit, consciousness and personhood. Power was evident, not only in the observable characteristics of animals and plants, but also in the movement of water and the decomposition of rocks into soil. All living things are related in a family, of which the sky and the earth are father and mother respectively (Callicott 1982: 302-3). This relatedness of living things has moral implications that inform the interactions between indigenous Americans and other persons in their environment. The Cree hunters of Quebec, whose economy and environmental knowledge have been described in detail by Tanner (1979) and Scott (1989; see also Feit 1973), provide an appropriate illustration.

The Cree and the animals they hunt belong to a single moral community whose members recognize and fulfil obligations towards each other. The Cree are aware of the needs and sensitivities of the animals and take them into account in their activities. Similarly, the animals are aware of the needs of humans and provide for those needs as considerate kin are expected to do. Individual hunters are helped by animal friends, with whom they form long-term relationships (1979: 139-40). Gifts are exchanged between the human domain (the dwelling) and the animal domain (the bush). The animals give themselves as food to the Cree. Offerings of tobacco are made in return, and gifts of food placed in the fire are carried back to the bush via the smoke ascending through the chimney (Tanner 1979: 172-4). The distribution of the meat and the treatment of inedible parts of the animal are important in the fulfilment of human obligations towards the animals (Scott 1989: 203-4).

The extent to which the animals are really seen as choosing to

give themselves is not entirely clear from the ethnography. Cree hunters go to considerable lengths to outwit their quarry (Scott 1989: 199), and some Cree myths present hunting as a struggle between hunter and animal (Tanner 1979: 149). Hunting is also likened to a sexual relationship in which the hunter seduces the animal with charms and songs. Reluctant animals may be tricked into giving themselves up against their will (Bird-David 1993: 113). On the other hand, a hunter who has no success should not be too disappointed, because 'it is wrong to expect more than is offered freely by a partner in reciprocity' (Scott 1989: 204), and the reciprocal nature of the relationship is stressed repeatedly in Tanner's description.

This element of reciprocity is crucial in distinguishing the type of environment experienced by the Cree from the other examples presented above. At first sight, it might appear that the Cree live in a giving environment very similar to that which, according to Bird-David's analysis, is experienced by hunter-gatherers with immediate return systems (such as the Nayaka, the Batek and the Mbuti). But these communities receive gifts unconditionally from their environments, whereas the Cree understand that their environment will cease to give if its generosity is not returned. The Cree environment might also appear superficially similar to that of the Dogon, who also received sustenance from the bush in return for respect. But the Dogon environment is unambiguously more powerful than the Dogon themselves, and power diminishes as it flows from the bush to the human sphere. The Dogon can take power from the bush, but they cannot give it back. In contrast, Tanner's description of the Cree hunt indicates that power is first transferred from animal to human, and then returned to the environment:

he [the hunter] acknowledges the animal's superior position, and following this the animal 'gives itself' to the hunter, that is, it allows itself to assume a position of equality, or even inferiority, with respect to the hunter.

... at the stage of divination [which precedes the hunt], the animal is on friendly terms with the hunter, but is far more powerful than him. The act of killing, on the other hand, becomes an exchange between 'persons' at a reciprocal or equivalent level. Finally, after the kill, ... the hunter must

observe rules ... which ... symbolize a final shift in the social model of the man-animal relationship.

(1979: 136, 153)

The power received by the Cree from the environment is returned in the form of ritual observances which, among other things, have 'the purpose of regenerating further animals' (Tanner 1979: 153). The Dogon feel unable to replenish the bush (van Beek and Banga 1992: 71), but the Cree see their own activities as doing precisely that. By giving back the power that it gives them, they ensure that it will provide for them in the future. This way of interacting with the environment is taken further in the next example.

Indigenous Australians: perpetuating the environment

Australian Aborigines have attracted a great deal of attention from anthropologists over the years, from the classic ethnography of Spencer and Gillen (1968 [1899]) to detailed analyses of their art and knowledge (Munn 1973, Morphy 1991) and studies of how they understand and come to terms with life in modern Australia (Sansom 1980, Bell 1983). Aboriginal culture has proved difficult to translate into terms that are easily comprehensible to outsiders (Keesing 1981: 333-4). The following brief account, taken mainly from Strehlow's ethnography of the Aranda-speaking peoples of central Australia (1970), makes no attempt to interpret its more complex components, but outlines only what is necessary to make a comparison with the cases presented above.

The environment in which indigenous Australians lived was created (Bird-David suggests 'procreated'; 1993: 114-16) by ancestral beings travelling through the country. As they travelled, they made the landscape of hills and valleys, rocks, pools and streams, the plants and animals that inhabit the landscape, and the elements on which all life depends. Many ancestral beings are themselves embodied in landscape features located at their journeys' end. They also created ceremonies to ensure the perpetuation of the environment, and sites where ceremonies should be performed. The ancestors named things as they created them, and the Aborigines continued to create by naming things in song, or painting them on rocks and bark, and by re-enacting the ancestral journeys in dance. The continuation of life depended on the correct performance of the creative acts invented by the ancestors. Thus the

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economic survival of Aboriginal communities was in the hands of ritual experts who knew the ceremonial cycles.

Responsibility for the continual recreation of the environment was distributed among Aboriginal clans and sub-clans according to their ancestral ties. All living Aborigines were considered to be reincarnations of ancestral beings, and each clan was responsible for continuing the work that its ancestors initiated. So, for instance, one clan might be responsible for perpetuating rain, another for perpetuating kangaroos, another for perpetuating honey-ants, and so on. These responsibilities were communal in the following sense:

each Aranda local group was believed to perform an indispensable economic service not only for itself but for the population around its borders as well. Thus, the Eastern-Aranda Purula-Kamara local group of Ujitiya was believed to have the responsibility of creating rain for the whole of the surrounding countryside by the performance of the Ujitiya rain ceremonies . . . In the same way, the members of kangaroo, euro, emu, carpet snake, grass seed, and other totemic clans were regarded as having the power of bringing about the increase of their totemic plants and animals not only within their local group areas, but throughout the adjoining regions as well.

(Strehlow 1970: 102)

If the population of a particular species declined, those responsible were blamed for not having performed the ceremonies correctly. One euro (wallaby) clansman commented of the bandicoot clansmen, 'their ceremonies are useless. Euros are to be found everywhere, and it is we who create them. The bandicoots have vanished long ago' (Strehlow 1970: 103). A serious consequence of missionary influence among the Aborigines has been the disappearance of the traditional ceremonies, resulting in a long and steady decline in the state of the environment. On this point, it is worth quoting Strehlow at length:

in present-day Central Australia one of the commonest Aboriginal criticisms made of the new order introduced by Europeans is that the whole country has been economically ruined by the wholesale destruction of all the indigenous forms of ritual activities. Ever since Central Australia's first

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major drought of 1927-29 the Aboriginal population has attributed the ensuing lengthy successions of poor and dry years to the disappearance of the older generations of ritually wise and traditionally educated elders who alone knew fully how to create rain and how to promote the increase of plants and animals . . . During the grim eight-year drought which ended in 1966, many sophisticated Aboriginal agnostics and some Christianized young leaders privately joined together in the same chorus of abuse: 'The old men always said that the rains would fail to come, that the animals and trees would die, and that men and women would fall ill, if the sacred songs were no longer sung and if the sacred acts were no longer performed. And what they said has come true. We young folk who know nothing about the old traditions are helpless to save the country; and the white people are just as useless.'

(Strehlow 1970: 111)

The idea of saving the environment thus appears to be entirely compatible with the cultural perspective held by at least some indigenous Australian societies. Unlike the Waksigau, the Dogon, the Mende and those hunter-gatherers who live in an unconditionally generous environment, Australian Aborigines felt able, as long as they retained their knowledge of traditional ceremonies, to replenish the resources on which they depended. When their environment declined, it was seen as the result of their own failure.

The argument that the development of an environmentalist perspective depends on the way power is allocated within the human-environment relationship can be sharpened by presenting one final example. The Gaia theory¹⁰ holds an ambiguous position within environmentalist thought. I suggest that this ambiguity can be attributed to the fact that the theory itself is ambiguous about the location of power.

Gaia: getting by with a little help from her friends?

Lovelock, who originated the Gaia theory, stated its central idea as follows: 'that the physical and chemical condition of the surface of the Earth, of the atmosphere, and of the oceans has been and is actively made fit and comfortable by the presence of life itself' (1979: 152). In other words, it is living organisms that keep the

planet in a condition able to sustain life. This makes the Earth a single complex living system, a superorganism (Yearley 1992a: 145), to which Lovelock gave the name of the Greek Earth goddess, Gaia. One of the implications of the theory is that, for the future of life on Earth, it is the health of the system as a whole that matters, not the health of any particular species. Indeed, a particularly troublesome species, which threatens the health of the system, might be shrugged off, disposed of. Thus the planet's future as a living system is a separate issue from the future of humanity (Lovelock 1988: xvii). This has made Gaia a pivotal idea in the tension between anthropocentric and ecocentric environmentalist views.

The Gaia theory has received mixed responses from environmentalists. Some have embraced it as inspirational, and as a rationalization for their moral concern for the Earth as a whole, but have used it more as a basis for the spiritual expression of environmentalism than as a guide to practical action. Conservation scientists, in particular, were slow to acknowledge it. This is not surprising given that it challenged their conventional wisdom, 'which held that life adapted to the planetary conditions as it and they evolved their separate ways' (Lovelock 1979: 152). But in recent years, its scientific status has been treated more seriously (see the contributions in Schneider and Boston 1993), and some of the most scientifically orientated environmental organizations give the occasional nod in Gaia's direction (for instance IUCN *et al.* 1991: 27).

I suggest that these responses have been mixed because the implications of Gaia for human action are not clear. The theory seems to suggest that Gaia is in charge, and that she can look after her own interests; she does not require people to protect her. But we cannot be sure of this, for scientists tell us that living systems are vulnerable. The understanding of the Earth's history generated by geology suggests that, if the Earth is a superorganism, it might have vital organs and expendable parts. Periodically, the living system of the planet has lost about 30 per cent of its territory to glaciation, and has recovered each time. This suggests that Gaia's vital organs are not in the temperate regions but in the tropics, or perhaps in the wetlands or on the continental shelves (Lovelock 1979: 129ff.). Although Lovelock saw his role as that of explaining how Gaia works rather than prescribing courses of action, he did suggest that we might try to protect these regions if we want to

minimize our impact on the planet's ability to support life. He also suggested ways in which, as individuals, we might try to live in harmony with Gaia (Lovelock 1988: 225ff.). So the Gaia theory is ambiguous on the matter of where power is located in the human-environment relationship, and therefore on the matter of what we can do. Its implications are such that environmentalists have felt unable or unwilling to ignore it, but suggest neither that Gaia is totally in control of her own destiny, nor that her future is fully in our hands.

THE LESSONS OF CROSS-CULTURAL COMPARISON

At the beginning of this chapter I suggested that, by comparing a range of cultural perspectives on the environment, we might come to understand how environmentalism differs from, and is similar to, other ways of understanding the world. As a starting point for the comparative analysis, I chose to examine the myth, commonly held by environmentalists and others within industrial society, that non-industrial societies possess a primitive ecological wisdom that enables them to live in harmony with their environments. It is time to consider what the comparison reveals, both about the myth and about the character of environmentalism as a cultural perspective.

Reassessing the myth

The cases outlined above are not, of course, intended to be representative or exhaustive. They merely illustrate a range of perspectives that exist within the human cultural repertoire. But they are sufficient to indicate that the myth of primitive ecological wisdom is not well founded. Clearly, there are some non-industrial societies that hold themselves responsible for protecting their environment. The Kogi, the Australian Aborigines and some indigenous American societies all see it as their obligation to perform tasks that will ensure the continuation of the environments on which they depend. But there are also non-industrial societies which do not recognize a human responsibility to protect the environment, and which probably could not do so without changing some of their basic assumptions about the nature of the environment and their relationship with it. Whatever the differences between cultural

perspectives that encompass environmentalist principles and those that do not, they apparently have little to do with the dividing line between non-industrial and industrial societies.

Why, then, do environmentalists continue to believe that non-industrial cultures are environmentally benign? I suggest four reasons for the persistence of the myth. The first concerns its nature as a myth, as a dogmatic assertion not easily refuted. The myth persists because environmentalists have good reasons for wanting to believe in it. The idea that non-industrial cultures are kind to the environment enables radical environmentalists to argue that industrialism *per se* is responsible for environmental destruction. It also enables them to believe that there are viable alternatives to a destructive economy, that by relinquishing industrialism we might create a truly sustainable way of life.

Second, environmentalists remain largely ignorant about the ways in which non-industrial peoples understand and interact with their environments; they therefore have no grounds for doubting the myth. Rayner pointed out that this is the fault of anthropologists: 'If Mrs Thatcher, the Green Movement, or Joe Public persist in misconceptions of the lesson that anthropology can teach us about human relationships with the natural environment, anthropologists are largely to blame' (Rayner 1989: 1; cf. Milton 1989: 30). Like many other academic specialists, they have failed to communicate their knowledge to an audience beyond their own colleagues. They have couched their findings in language that non-specialists find difficult to understand, and published them in journals that most people never hear of.

Third, environmentalists fail, as anthropologists used to, to distinguish between culture and the things people do. The actual impacts of non-industrial societies on their environments depend on how they use those environments to meet their needs; whether they harvest wild food from the forest or clear areas of forest to grow crops, whether they fell whole trees for firewood or merely cut a few branches from each, whether they exploit the resources of one area to exhaustion or move around, spreading their demand more thinly over a larger territory. Without distinguishing between what people think, feel and know about the world (their culture) and the things they do, it is easy to make the mistake of assuming that societies which appear to have little impact on their environments must necessarily have environmentally benign cultures. And yet, as Ellen (1986) and others pointed out, there are other factors

that reduce the impact of people on their environment, such as geographical isolation, low population density and limited technology (see above). Once we distinguish between a society's culture and its members' actual uses of their environment, it is possible to see that low environmental impact can exist alongside a culture which espouses no environmentalist principles.

This point can be illustrated using the example of hunter-gatherers with immediate-return systems, who think of their environment, according to Bird-David's analysis, as a generous donor that unquestioningly meets their needs. Since they do not *expect* its generosity to run out, they might well continue to take from the environment whatever it can give until its supplies are exhausted. In terms of the surprise theorists' model, outlined in Chapter 3, hunter-gatherers who are accustomed to living in a giving environment are likely to act as if 'nature' is robust. It might come as quite a shock to western environmentalists to learn that some of the least environmentally damaging societies are culturally closer to industrial entrepreneurs, in some ways, than to themselves!

The final reason why the myth of primitive ecological wisdom persists among environmentalists is that, within the context of global environmental discourse, non-industrial societies have themselves helped to perpetuate the myth by adopting the image that industrial society has constructed for them. There are good political reasons why they should do this. In particular, by allowing themselves to be depicted, in the global arena, as environmentally benign, they win the support of environmentalists throughout the world against the political elites in their own countries in their efforts to retain or regain their traditional freedoms. This point will be discussed more fully in Chapter 6.

Identifying environmentalist cultures

It is not my intention here to try to explain why some cultures contain or can accommodate environmentalist ideas and principles while others do not, though this is a question to which cultural theory could and should be addressed; indeed, it is the question addressed by Douglas and her colleagues, whose work was discussed in the last chapter. Here, I want to identify the kinds of questions we should ask in order to determine whether a particular culture or cultural perspective might be capable of accommodating environmentalist ideas. These questions concern the way people

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define their environment and their relationship with it, the way they value it, the manner in which they allocate moral responsibility and the timescales within which they plan and evaluate their activities.

The first question is that identified in the comparative analysis above: where does the balance of power lie in human-environment relations? Societies and groups which see the balance of power as lying with the environment are unlikely to be able to envisage taking a protective role towards it, while for those who see the environment as amenable to their influence or manipulation, a protective role is not precluded. The clearest illustration of this contrast is provided by Richards' comparison of Mende and conservationists' understandings of the rainforest. For the conservationists, the forest is a passive object, 'an endangered asset... without human agency it can have no future' (Richards 1992a: 138). For the Mende, as we have seen, it is more like a patron who supports and protects them. They could envisage the possibility of relieving it of this burden, but not of actively protecting it (Richards 1992a: 151-2). The fact that people see themselves as living under the power of their environment, rather than vice versa, does not mean that they will have no concern for it if it appears threatened. But it does mean that they are unlikely to see protection of the environment as something they themselves can accomplish. Instead, they might watch helplessly as the desert advances or the forest disappears, or hope that some external agency (a divine power, a central authority or international organization) might intervene.

Second, there is the question of whether the environment is assumed to be vulnerable or resilient (or, in the surprise theorists' terminology, 'fragile' or 'robust'). This question identifies one of the features separating environmentalists within industrial society from those whom they oppose. The understanding that the environment can be dominated and manipulated by people is shared by both parties. But a great deal of industrial development has taken place apparently on the assumption that the environment can withstand whatever is done to it, whereas environmentalists assume that it cannot. The Kogi would recognize this view. For them, it is the careless disregard of the Younger Brother that has placed the very heart of the world in jeopardy. They do what they can, through their ritual observances, but their only hope is that

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the Younger Brother will recognize the vulnerability of the Earth and cease his destructive ways.

Third, there is the question of how the environment is valued. It may be seen as both vulnerable and amenable to human influence and power, but there may still be no imperative to protect it if it is not considered important. Insofar as people view their environment anthropocentrically – in terms of its use and value to them – their assessment of its importance will be affected by the extent to which they see themselves as dependent upon it.¹¹ If they do not need it for their own survival and comfort, they are less likely to be concerned if it is threatened. In Chapter 1, I drew attention to Dasmann's distinction between ecosystem people (small, traditional communities or people who have opted out of industrial society), who rely on the resources of a single ecosystem, and biosphere people (industrial society), who draw on the resources of the entire biosphere. I pointed out that ecosystem people might be expected to value their immediate environments highly because they depend upon them. Biosphere people might be expected, not only to attribute less value to their immediate environments, because the resources on which they depend come from elsewhere, but also to attribute less value to those distant environments whose resources they use. These environments, because they are distant, do not impinge on their lives, and if their resources fail, they can always move on to exploit some other, equally distant environment. This particular characteristic of biosphere culture is illustrated by the observation that industrial societies have often exported their worst environmental impacts by locating their most polluting activities well outside their own borders (see Yearley 1992a: 157ff.).¹²

The answers to these questions will indicate whether a particular society or group of people is likely to regard protection of the environment as possible and/or necessary, or to be able to accommodate such a view. We may need to ask other questions to determine the likelihood of their actually adopting environmentalist principles. For instance, how is moral responsibility allocated within the society? People who acknowledge that they have the power to protect the environment, and that it is important to do so, might still see it as someone else's responsibility. Environmental campaigners often find it difficult to persuade even a concerned and attentive public to take personal responsibility for environmental change. Within a liberal democracy, the public and the

government tend to delegate responsibility to each other. The public assume that they elected the government for that very purpose, while the government tend to treat an apparent lack of public concern as reason not to act; they act only when public protest or voting patterns prompt them to do so. In Britain, for instance, the government's first significant efforts to demonstrate a concern for the environment came only after the Green Party had won 14.5 per cent of the vote in the 1989 European Parliament Elections (Dobson 1990: 2; Yearley 1992a: 1-2).

Or, how is the relationship between events and time understood? If time is seen as a linear dimension within which change is irreversible, this adds an extra impetus to environmental concern. It is particularly important to protect the environment *now* because there may be no other chance to do so. This kind of thinking is implied in such environmentalist slogans as 'Tomorrow is too late' and 'Extinction is for ever'. This impetus is missing if events are seen as repeating themselves in a cyclical pattern. Our understanding of past climatic changes, in which successive ice ages have given way to warmer periods, helps to insulate us, to some extent, from the fear that we might ultimately be responsible for irreversibly changing the Earth's climate. The changes provoked by human activities seem less alarming when set in the context of the larger, 'natural' pattern. In a similar way, the understanding that mass extinctions have happened repeatedly in the past (see Leakey and Lewin 1992: 354), followed each time by a recovery of biological diversity, enables us to reassure ourselves that our impact might not be so final after all. One of the reasons why environmentalists have felt ambivalent towards the Gaia theory is that it presents us with the larger pattern and so offers this kind of reassurance.

Even when people are convinced of the need for environmental protection and have identified a timescale within which it has to be accomplished, they might not be able to relate their own activities to that timescale. In societies with 'immediate return systems' (Woodburn 1980), people do not expect to have to concern themselves with future needs, but consider only what is necessary to satisfy them for the present. And it has often been observed that the electoral systems of liberal democracies operate on a timescale that is incompatible with concern for the long-term future. Those with the power to effect the kinds of policy changes that might ensure long-term environmental protection have only four or five

years to persuade the electorate that they should remain in power for another, equally short, spell.

The environmentalist critique of industrialism

If the myth of primitive ecological wisdom supports the environmentalist critique of industrialism, where does the refutation of the myth leave this critique? One of the main components of the cultural case against industrialism is the argument that it is industrial society's idealization of growth, and of the consumption patterns that sustain growth, that help to support an environmentally destructive economy. The myth of primitive ecological wisdom rests, to a large extent, on the assumption that non-industrial societies are different from industrial societies in this respect, that they do not idealize growth or aim to maximize material consumption.

This image of non-industrial societies is quite close to Sahlins' model of the 'original affluent society' (1968). He argued that some non-industrial societies, particularly those with hunting and gathering economies, experience a degree of 'affluence', not because they possess so much but because they require so little to satisfy their material needs. But he did not imply that this lack of desire for material wealth was universal in the non-industrial world, to have done so would have flown in the face of evidence. There are many well-known cases in the ethnographic literature of lavish wealth and conspicuous consumption as a source of prestige and power. In many pastoral societies, in which animals are the main store of wealth, people aim to maximize the size of their herds, and large numbers of animals are given in marriage transactions (see, for instance, Evans-Pritchard 1940). Trobriand Islanders aimed to produce a huge surplus of yams from their gardens; some to be given away to kin and political patrons, some to be left conspicuously to rot in the yam houses as testimony to their owners' wealth and power (Malinowski 1935). Among the Kwakiutl of Vancouver Island, potlatch feasts, at which huge amounts of wealth were distributed, were an important source of prestige; 'There was keen competition among members of the elite to outdo each other in their largesse' (Howard 1986: 149; for a full account see Codere 1950).

Cross-cultural comparison of attitudes to wealth, and of other assumptions and values related to people's uses of their

environments, clearly indicate that industrial culture is not unique in these respects. Thus it cannot be industrialism *per se* that is the cause of environmental destruction. This does not, of course, refute the argument that most large-scale environmental destruction is the result of industrial processes. Still less does it imply that a cultural shift away from industrialism will not be effective in fostering more benign ways of interacting with the environment. But it does mean that environmentalists need to be cautious in selecting their models for sustainable living from the non-industrial world.

Cultural diversity and survival

It seems fitting to round off a discussion on cultural diversity by commenting on its value. In outlining the nature conservation perspective, I referred to the fact that biological diversity is considered important because it is seen as the raw material on which the process of evolution depends. The less diversity there is, the greater the chance that life itself could be wiped out as a consequence of environmental change. It is worth pointing out that a parallel argument is made about human cultural diversity, both by anthropologists and by environmentalists. Different ways of understanding and interacting with the world provide different possibilities for human futures (cf. Keesing 1981: 506). If some cultural perspectives ultimately prove to be unsustainable (as environmentalists argue will be the case for industrialism), then human survival will depend on the existence of alternatives. Thus, while advocating that all societies strive to become sustainable, some environmentalists argue that the world needs 'a variety of sustainable societies, achieved by many different paths' (IUCN *et al.* 1991: 8).¹³

The discussion in this chapter has indicated that the identification of environmentally sustainable cultures is likely to be a complex and uncertain business. It is also difficult to imagine that the selection of such cultures could take place in a systematic and deliberate way. It could be that sustainable ways of living will simply be those that are left, once the unsustainable economies have burned themselves out, so to speak, or that sustainable cultures might eventually emerge out of whatever degree of devastation is created by unsustainable economies. Whatever the case, it seems reasonable to argue that, if we care about the long-term survival of the human species, we would do well to protect our

cultural diversity as an important resource. This leads directly to the subject of the next two chapters, for if the process of globalization is taking place as some social scientists describe it, then it presents a serious threat to cultural diversity.