Cultural Outlooks and the Global Quest for Sustainable Environmental Management

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ABSTRACT Culture shapes how people identify and evaluate elements of their environment, and influences their behaviour and subjective experiences. At a more pragmatic level, culture provides the social infrastructure and institutions that determine how resources are used and managed. This article highlights the links between culture and natural resource management. The authors outline contrasting points of view on the role of culture in resource and environmental management, and attempt to mediate between these conflicting positions.

Culture, behaviour and the environment

MANY OF THE world's environmental problems can be attributed to human population pressures; but, as recent literature has successfully demonstrated, poverty and environmental destruction are strongly linked to national and global systems of exploitation (Bradshaw, 2001). Culture provides belief systems and customs that influence both demographic dynamics and environmental management practices; and caring relations toward the environment are a necessary requirement for sustainable resource management, since the values, assumptions, and beliefs that characterise a managerialist practice are inconsistent with sustainable resource management. The environment is important not only for fulfilling material needs, but also for providing the geographical context for emotional, cognitive and spiritual values (Berkes and Folke, 1998).

In a historically importam analysis of 'cultural and practical reason', Sahlins (1976) highlighted the significance of symbolic and practical aspects of culture as the joint variables influencing the interaction of individuals and groups with their environment. He identified several varieties of practical reasoning: those centred on forms of economic behaviour; those which base their argument on the logic of material advantage, and the individual maximisation of means-ends relations. Sahlins articulated the view that western science was saturated with assumptions about the importance of materialist causes of cultural form and practice. These assumptions were culturally biased, stemming from a position that was itself unusual in the degree to which the material (economic) base appeared to dominate other aspects of society. He viewed the prevailing Marxist and structuralist critiques of his day as theoretical perspectives shaped by the social context of that period. Sahlins' views about the dynamics of western culture and ownership values have received empirical support from political ecologists. Working in northern Queensland, among cattle pastoralists and Australian Aboriginals, Strang (1997) provided a detailed comparison of the way that Australian Aboriginals and white Australian cattle pastoralists perceive and interact with their environment in the Cape York peninsula of Queensland. While the two cultural groups inhabit the same geographical area, Strang observes that they relate to the environment in very different ways. The ways in which they construct and relate to their environment is structured by their cultural systems of belief, knowledge anti social organisation.

Strang argued that history carries weight into the present; it gives cultural development a trajectory that continues in the face of environmental, social and economic change. To the Aboriginals, their ancestral lands are areas of safety, refuge, spiritual and emotional renewal and identity, as well as economic, political and social independence and autonomy. For the white cattle pastoralists, the same land is a cattle country and 'outback': difficult, resistant, frequently dangerous, and an arena for affirming masculine identity. The land is viewed and valued by this group primarily as an adversary which, given appropriate technical know-how and (male) enterprise, can be transformed into a productive resource. These contrasting emotional and cognitive orientations have continued over the past two centuries to influence the way that Aboriginals and white pastoralists respond to the

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land. Aboriginal attitudes to land remain strongly affective and protective in the face of commercial opportunities for new forms of production. White pastoralists, on the other hand, continue to look to technological solutions to the environmental and economic problems that plague them in an isolated, humid environment that is only marginally suitable for commercial cattle production.

Strang's (1997) assessment of the worldview of white herders in Australia echoes closely the pragmatic analyses of Australian agricultural economists, who maintain that the behaviour of resource users is determined primarily by self interest. An example of this position can be found in an extensive analysis, by Cary and Wilkinson, of the environmental management choices of Australian sheep farmers in the drier parts of south-eastern Australia. These authors observed that the adoption of conservation practices by local sheep farmers was influenced by 'perceived profitability [as] the most important factor influencing the use of conservation practices' (1997, pp. 13-21).

The complexity of the symbolic order and practical utility of resource management practices is captured in an interesting account of the cultural significance of the landscape in contemporary Israel. Selwyn (1995) describes the workings of the state-subsidised Society for the Protection of Nature in Israel (SPNI), an influential environmental organisation with a strong commitment to 'defend' Israel's landscape. He poses the questions: 'Why does Israeli nature and landscape need defending? And what does it need defending from?' (Selwyn, 1995, pp. 117-31). The answers are pragmatic, cultural and political – in seemingly equal measure. In pragmatic terms, the Israeli landscape needs to he defended from over-exploitation and agricultural misuse. In cultural and political terms, it needs to he defended from internal divisions within Israel itself which threaten the integrity of the state. As Selwyn points out, the landscape of Israel is deeply entwined with Hebrew history and culture:

> “The very existence of Hebrew culture, language, and literature, especially the bible, simply cannot be understood without reference to the landscape in which it is set ... Politically, it provides a focus of unity and common national identity ... Conservation of the landscape, and intimate contact with it, thus appears as the surest way of protecting the nation as a whole, both from internal schisms and external influences and threats (1995, pp. 130-1).

Culture and resource management

A widely accepted definition of the concept of culture in contemporary geographical thought, articulated by the human geographer. Linda McDowell sees culture as 'a set of ideas, customs and beliefs that shape people's actions and their production of material artefacts, including the landscape and the built environment' (1994, p. 148). McDowell is quick to point out, however, that cultural ideas and practices reflect power relations within societies, and has criticised 'traditional' cultural geographers for ignoring 'contested meanings' in relation to issues of landscape or place-based identity. The concern over 'power relations and dominant ways of seeing the world' is widely felt among postmodern geographers who warn that private and public agencies are often locked into an irreconcilable conflict of interest, over the fairness and effectiveness of officially-endorsed practices and policies. This view is somewhat at odds with supporters of the 'Berkeley School' of thought who are less sceptical about the value of public agencies as 'shapers of the environment'. Based on extensive research in developed and developing countries, Professor Anna Tsing, of the University of California Berkeley, points out that:

> “National resource bureaucracies are not only powerful shapers of the environment themselves; they are also perhaps the most important sites of struggle over environmental classification and regulation. They are charged with tapping the dynamism of corporations and also curbing their excesses. They engage the expertise of international agencies, the negotiations of transnational NGOs (non-governmental organizations), and the cooperation, protest, and resistance of communities (1999, p. 3).

Another controversial argument about the culture-environment link has been presented by geographers and historians arguing that, since the fourteenth century, European expansion has been possible through 'ecological imperialism' that involved the replacement of indigenous ecosystems by a European agricultural ecology. Crosby (1986) observed that Europeans were most successful as colonisers in those temperate parts of the world where European management styles and settlement patterns could be established relatively easily In areas such as the US, Canada, Australia and New Zealand, European settlers sought to remove the existing

indigenous plants and animals, and replace them with their Own.

Not surprisingly Crosby's conclusions have been criticised for being rather simplistic (MacKenzie, 1997). Nevertheless, Crosby's assessment serves to make the point that ecological contexts make a difference to the way that cultures work, grow and expand. The environment offers resistance and limits to the evolution of a culture, but cultural patterns may persist in the face of moderate forms of ecological opposition. However, cultural patterns that are inconsistent with ecological sustainability may eventually lead to environmental collapse, subsequent cultural adjustments, or even the loss of a culture. Indeed, there is a body of scholarship which supports the controversial notion of the existence of a causal pattern in culture-environment interactions, where culture is seen as having 'causal powers' shaping the activities of local communities. Although contested by some cultural geographers (see McDowell, 1994, p. 149), this viewpoint has been enlisted to explain a phenomenon often referred to as ecological 'surprise', where ecosystems, natural resource stocks and cultural entities change when they come into conflict. As Tsing argued in an essay on the links between culture and natural resources management:

> "Conflicts over natural resource management are "cultural" not only because they pit opposing perspectives, values, and ways of life against each other; they also require the "mobilization" of one's own position, that is, the formulation and reformulation of the problem, the groups involved, and the appropriate forms of representation through which the argument should be addressed ... Cultural mobilization in my usage here refers to the process of (re)assembling a set of practices, knowledges, legacies, values, organizational forms, or, indeed, a way of life, in the midst of challenges — from other groups, from new ways of thinking, or from the condition of the environment itself This (re)assembling brings adherents into a new awareness; it offers an opportunity to explain and organize their commitments in new ways, to revitalize their interests and remake priorities, to speak about their vital needs to a new audience, and, perhaps, to engage with their own ever-changing communal practices with a new vigor (1999, p. 9).

Theoretical developments in the environmental planning sector appear to reflect the conclusions identified above. An interesting contribution to this debate has been presented by Finlayson and McClay, on the demise of the Newfoundland cod fishing industry (quoted in Berkes and Folke, 1998). Their article outlines how, after several centuries of traditional fishing by Newfoundland and Icelandic fishermen, the introduction of scientific methods of resource assessment and quota management may in fact have contributed to the collapse of both the fish stock and the local fishing culture. The authors make the important observation that the culturally-disruptive introduction of rational, scientific methods of quota management are unable to provide the social restraints necessary to control the fishing industry effectively.

The call for an 'adaptive' approach to resource management heralds a new form of `systems-based' environmental sustainability (Berkes and Folke, 1998). According to this view, the adaptive management approach recognises that formalised knowledge of systems is always incomplete, and that the complexity of natural systems is such that:

> "There is an inherent unknowability, as well as unpredictability, concerning these evolving, managed ecosystems and the societies with which they are linked. The essential point is that evolving systems require policies and actions that not only satisfy social objectives but, at the same time, also achieve continually modified understanding of the evolving conditions and provide flexibility for adaptation to surprises. Science, policy and management then become inextricably linked (Berkes and Folke, 1998, p. 347).

In an adaptive resource management context, the management of natural resources needs to consider indigenous knowledge, as well as the practical experience of local resource users. According to this perspective, resource users are part of a complex pattern of ecological interactions and solutions to environmental problems must have a community focus. These solutions must, therefore, acknowledge the importance of community insight as well as scientific knowledge (Moral and Jay, 1997).

In assessing the role of culture in resource management, an incipient convergence of views can be discerned between political ecologists and resource managers (including farmers). Political ecologists continue to take the position that culture influences the way individuals and groups form affective relations with their environment. Some of the cultural factors that encourage these affective links to the environment include land tenure, continuity of residence in the home range and detailed knowledge of the home territory. Other important factors relate to local spiritual beliefs, and a collectively held perception of the local environment as safe and nurturing. On the

other side of this situation, the factors which discourage affective relations toward the environment include alienable land ownership (mainly due to the commodification of land), lack of knowledge of the local environment and the loss of biological heritage (Moral and Jay, 2000). However, many political ecologists would acknowledge the apparent involvement of some traditional societies in disrupting the ecological forms of their own local human-environment relations. The literature is full of accounts of peasants who, while feeling a strong attachment to their local environments, are nonetheless prompted, or compelled by political and economic circumstances, to exploit their lands beyond levels of sustainable production (Blaikie and Brookfield, 1987; Thrupp, 1993).

From a farming perspective, a view is emerging (both in developed and developing countries), which agrees that where group and individual identity are positively tied to the environment, care of the landscape is more likely. The views of the American farmer and social commentator Wendell Berry mark an interesting position in this context (Berry, 1997). Berry is an articulate environmentalist and a critic of the industrial world structure. His ideas return repeatedly to community, commitment, place and sufficiency. Berry argues that good farming, by which he means farming that outlasts the lifetime of the farmer, is like a marriage! Both require time, love, and coming to terms with limits, the 'reality' of the other, as opposed to the imposed vision. Like marriage, good farming depends on the support and reinforcement of family and community through good times and bad, and both depend as much on learning and knowledge acquired through practice over time. Good farming also means concern for community and the future. Thus, in Berry's view, good husbandry ties in with a nexus of factors related to stable, long-term residence in small-scale community groups. It involves both individual and collective relationships to the land that evolve over time. Berry writes:

> “In its cultural aspect, the community is a horde of memories preserved consciously in instructions, songs, and stones. A healthy culture holds knowledge in place for a long time. That is, the essential wisdom accumulates in the community much as fertility builds in the soil (1997, p. 119).

Conclusion

Culture influences environmental relations and the way people perceive, use and manage their environment. Cultural values tend to reflect and reinforce the prevailing structures of power and authority; and the way people relate to their habitat is seldom independent of local and global socio-economic factors. Despite claims to objectivity and scientific rigour, cultural imperatives apply equally to the way western resource managers deal with environmental issues. Hence, western rationalist assessments of environmental behaviour, and solutions to ecological problems, are based on assumptions which are not necessarily valid everywhere. Also, the rationalist claim that environmental problems are solvable by technical or legal means is questionable.

Culture is a conservative force, inducing a behavioural lag in response to environmental feedbacks and pressure points. However, cultures do develop, but any changes that happen are predicated on slow-evolving beliefs, assumptions and practices. Environmental institutions and behaviours that incorporate long-term patterns of settlement and land use are, therefore, more likely to succeed than those built on short-term agendas.

Sustainable resource management requires sympathetic stewardship of local ecosystems, whether traditional or contemporary. Many indigenous cultures have institutions, beliefs and practices that encourage productive environmental relations, although indigenous cultures are increasingly caught up in wider national and global structures which are geared to the expropriation of local resources (to support metropolitan centres and industrial needs). Therefore, introducing constructive and workable resource management practices will depend on the development of global and local institutions that recognise the necessity of mutually-supportive relations between resource managers, their communities, and the surrounding environment. Caring environmental relations involve stewardship attitudes, and culture can provide conditions that encourage and strengthen such values and behaviour forms.

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