regarded as an ideal which would be worth achieving. There is no formal requirement to do so but many courses in, for example, agriculture, catering, those related to the management of leisure facilities and sometimes in engineering, try through project or general work to put the training in context both environmentally and in terms of economics; much depends on detailed course design and the attitudes and nature of the lecturers.

Conclusions

We have wandered in to speculation and reality but must remind ourselves that the relationship between ecology and economy and perhaps conflict and peace should remind us that environmental education is about environmental concern and, wherever and at whatever stage it takes place, it faces pupils with difficult questions of commitment and action. They should bring to the study of controversial issues a respect for evidence, wariness in its use, understanding of others' concerns and a growing realisation that environmental issues are rarely clear cut. Environmental issues may be of genuine personal concern to their students and can act as a useful means of exploring moral, social and political values.

In general there is considerable growth in environmental education in Britain. Enthusiasts abound, young people thrive on involvement in it and are interested. They show responsible concern when given the chance and are keen to take action when they feel it is necessary. The Moscow conference showed that there is worldwide interest and called for more development and exchange of ideas. British environmental educators can learn from the rest of the world and, it is to be hoped, can make some contribution themselves.

*This article was also written for **'Conservation'** published by the Conservation Trust, and first appeared in that journal in October 1987.* ■

Reflections on a trip down under

John Huckle oulines a prescription for radical environmental education in Australia which has implications for the UK.

John Huckle
Head of Geography at Bedford College of Higher Education

In 1988, many Australians will celebrate two hundred years of European settlement. In that time, half of the continent's topsoil has gone, two thirds of the forest has been destroyed, three quarters of the rainforests have been felled, and there has been a drastic decline in Australia's genetic resource base[1]. Within two hundred years, the ecologically sustainable way of life of the aborigine, organised for mutual aid and protection, has been largely replaced by one which plunders the environment for the sake of commodity production and private gain[2].

The approaching bicentennial has focused the attention of concerned Australians on the plight of aboriginals and the condition of the land. The Hawke Government has hastily drawn up a treaty on land rights and there is an awakening of green politics comparable to that in Europe[3]. 'Greenies' oppose such developments as uranium mining and wood chipping, and seek to conserve Australia's remaining wilderness areas. Their campaigns focus attention on the nature of dependent development in a client state on the semi-periphery of the world economy. Primary production remains the largest sector of the Australian economy, foreign ownership is high, and 'the lucky country' risks becoming a mere supplier of raw materials and market for manufactured goods, on the edge of the new Pacific. In response to a worsening economic situation, a Labour government has imposed monetarist policies and austerity. While one in five Australian children now live in poverty, a 'millionaire huckster class' has risen to considerable power as a result of overseas borrowings and tax privileges[4]. Despite the rhetoric of such documents as the *National Conservation Strategy for Australia,* the realities of Australia's political economy mean that it is ever more difficult to achieve sustainable development via consensus.

If we are to understand environmental issues in Australia or elsewhere, it is then necessary to consider underlying political economy. A prime goal for environmental education should be to develop pupils' environmental citizenship or their ability to understand, participate in, and criticise the social processes shaping our use of nature and construction of our environment. Among the talks I gave during a trip to Australia in 1986 was one suggesting what the components of such environmental citizenship might be. They will be outlined here and followed by some related comments on environmental education in Australia. In the outline, the original references to Australia will be maintained, but the reader might like to consider what these components of environmental citizenship might entail in a UK context.

The eight components of environmental citizenship

Environmental education which seeks to develop environmental citizenship has the following components:

1 Knowledge of the natural environment and its potential for human use

We should teach about Australia's major ecological systems, the processes which sustain them, and their vulnerability to human modification

2 A sense of history and a knowledge of the impact of changing social formations on the environment

Students should understand how the sustainable economy of the aborigine was replaced by that of the European colonist, how separate colonies merged to form a Commonwealth, and how a form of state capitalism developed to enabled rapid accumulation and entry into the semi-periphery of the world economy. They should be aware of the impact of changing social formations on nature and the forms of landscape and environment which characterized each stage.

3 An awareness of class conflict

As nature is transformed by a changing society, there are generally winners and losers. Throughout recent history, rich and poor Australians have shared unequally in the gains from past and present use of nature, in control over economic development, and in the costs of ecological disruption and environmental protection efforts. The ordinary people have frequently challenged the logic and costs of development under prevailing social relations, and their struggles

deserve a place in the curriculum. Australian workers won some of the earliest controls over the working environment and were amongst the first to impose 'green bans' on environmentally damaging production and development.

4 Political literacy
Pupils should acquire the ability to understand, participate in, and criticise, the political life of the state. The Australian state came into existence to manage the affairs of the dominant class within a particular part of the world, and its core functions today are those of assisting capital accumulation and legitimating the prevailing economic and political order. National and state governments manage class conflict by means of liberal democracy and while conflicts over the environment have brought a growing number of controls, these do not yet amount to a coherent environmental policy nor do they substantially challenge the interests of capital as a whole.

Our students need the knowledge, skills and attitudes which will enable them to understand and participate in environmental politics. In addition to a basic knowledge of relevant government agencies and their powers, they should also explore the composite nature of the environmental movement, its links with political parties, and the strategies it employs to affect government decisions. Case studies of environmental issues such as wood chipping, and participation in environmental campaigns, such as that surrounding the future use of Antarctica, are valid means whereby older pupils can develop political literacy.

In developing pupils' political literacy, teachers should seek to cultivate constructive scepticism. They should develop the pupils' ability to use and evaluate alternative kinds of social and political theory and recognise and handle bias. In the case of Australia, such scepticism might include the realisation that, in a state undergoing development dependent on outside influences, national politicians have declining power to protect the environment. They must continually balance the need to conserve resources, reduce pollution and improve people's environmental well-being, against the need to revive the economy by encouraging yet more investment with environmentally damaging consequences.

5 Awareness of alternative environmental futures for Australia and the political strategies whereby they are likely to be realised
In addition to the 'business as usual' scenario, which sees Australia further integrated into the rising economy of the Pacific Basin, pupils should be introduced to a 'conserver-orientated' or ecosocialist strategy for Australia. This would involve a different kind of development, designed to encourage socially useful and ecologically sustainable production, maximise self-reliance and human welfare, reduce the rate of resource exploitation and create satisfying employment using appropriate technology. Debate between 'Reds' and 'Greens' has developed the theory and practice of such a future for Australia with writers such as Hugh Stretton, Alan Roberts and Ted Trainer providing many useful ideas. While it will be strongly resisted by those with a high stake in current social realities, the critical examination of such social alternatives in schools is at the very heart of education for democracy.

In what often appears a hedonistic and politically apathetic society, education has a role in alerting young people to the social and environmental costs of the products and services they consume

6 An understanding of the political function of ideology and consumer lifestyles
European settlement of Australia was partly legitimated by a frontier mentality which set people above nature and encompassed particular Western views of progress and development. A cavalier and male dominated attitude to nature still pervades much environmental politics, enables environmentalists to be attacked as anti-progress, and continues to influence what is taught in schools. While it is increasingly challenged by other ideas, the main way in which young Australians learn environmental attitudes is through their everyday lives. A consumer society teaches them that happiness comes from more and more individualised consumption of ever more wasteful products. It buys the majority into the system, will later keep them working on the treadmill of production, and will offer ultimately false compensations for the alienation and powerlessness they will feel.

In what often appears a hedonistic and politically apathetic society, education has a role in alerting young people to the social and environmental costs of the products and services they consume. In a global economy, these costs are often paid by people thousands of miles away. The catch phrase 'think globally, act locally' has particular meaning in the context of education for environmental citizenship.

7 Involvement in real issues
Environmental citizenship can really only be learnt through action. Students should become involved in the environmental issues affecting their communities and in Australia the network of Environment Centres offers growing possibilities.

8 Tentativeness and Optimism
Unless we seek to indoctrinate, we have no right as teachers to provide students with 'correct' or 'easy' answers. Nor do we have the right to limit the nature of the topics and ideas we explore through environmental education. While w should be commited to jus rationality and democracy, rather than to a form of neutrality which leaves existing patterns of power privilege undisturbed, we should protect students from our own powers of persuasion and cultivate tentativeness as a necessary part of political literacy. Th scepticism and openness n associated with Crocodile Dundee should be much admired.

Optimism is necessary in today's world where stude are easily overwhelmed by world's problems. We shou build environmental succes stories into our curriculum develop awareness of resources for hope. The popu ity of the group 'Midnight is one sign that Australia's young people are not yet re to give up their vision of a fairer and better world.

Environmental Educati in Australia

I have set out my perceptio of environmental education Australia at some length elsewhere[5]. For the moment will focus on just three lasti impressions.

Firstly, while there are clea parallels between the Austra lian and UK experience, environmental education in Australia has not suffered t marked decline in advocacy and support seen in Britain since the mid 1970's. There remains real support from federal government and ma state governments are currently issuing curriculum guidelines. Teachers' morale and status is significantly higher than in Britain and there is much useful curricu lum development at local le

Secondly, there appears to a growing dialogue between environmental, social and development educators. Bes developed in Victoria, this dialogue could ensure that t political economy of the environment and education not neglected as it has been, both Britain and Australia, i the past. The work of Ted Trainer and the Social Litera

project in Sydney , Canberra Environment Centre, Victoria's Social Education Centre, and Warrandyte South Primary School in South Australia, all repay study.

Thirdly, as in Britain, there have been few recent attempts to extend the theory of environmental education. New writing on environmental philosophy and politics has not been integrated with that on schooling and the curriculum and few environmental educators have forged strong links with the wider environmental movement. In both countries, radical education for the environment does however remain better represented in theory than in practice. As environmental and social problems intensify in both countries, one wonders just how long that will remain the case.

References

[1] W Barnaby, 'Australia; environment down under', *Ambio*, Vol 12, No 1, 1983.

[2] G Bolton, *Spoils and Spoilers*, George Allen and Unwin, 1981.

[3] D Hutton (ed.), *Green Politics in Australia*, Angus and Robertson, 1987.

[4] J Pilger, letter to *The Guardian*, 25.7.87

[5] J Huckle, *Environmental Education in Australia - some perceptions and comparisons with the UK experience*, The Australian Studies Centre, University of London, 1987. (This occasional paper is available from ASC, 27-28 Russell Square, London WC1B 5DS, price £1.50.) ■

Educational developments affecting environmental education

The National Curriculum 5-16 - threat or promise?

Ewan Mc Leish looks for positive elements in the National Curriculum proposals in relation to environmental education, but is left with some misgivings.

Dr Ewan McLeish

Head of the Formal Education Unit of CEE

Short of a long term posting to the Siberian archipelago, it has been difficult to escape the reverberations of the consultation document that hit a few thousand doormats in July and August. The Government's *The National Curriculum 5-16* sets out its stall in relation to formal education for all children of compulsory schooling age. The result has been almost unprecedented interest from a vast array of organisations and individuals from within and outside the education sector, not least of which has been the media. As the (original) cut-off date of September 30th approached, responses flooded into the Department of Education and Science at the rate of hundreds per day. It was something of an anti-climax (though nonetheless significant) when a stay of execution was announced and the consultation period extended.

Among the responses was one from CEE[1] and it is not the purpose of this article to reproduce what it contained - although inevitably it will contain references to it. That response attempted to draw attention to the possible implications for environmental education of the Government's proposals, and for related and overlapping areas such as development and health education. This article attempts to look at some of the broader implications of the document and at the reaction it has produced.

'...successive Secretaries of State have aimed to achieve agreement with their partners in the education service on policies for the school curriculum which will develop the potential of all pupils and equip them for the responsibilities of citizenship and for the challenges of employment in tomorrow's world.'[2]

'It is a characteristic of the totalitarian society that allows no rivals to state orthodoxy. It abolishes all centres of independent responsibility and allows nothing to be done without approval. Education works best when people are treated as individuals; it recognises individual talent.'[3]

Two strongly contrasting views of the National Curriculum proposals, the former - predictably - from the consultation document itself, the latter - equally predictably - not. To an extent, there is confusion, or at least a difference of opinion, over the terminology used. It would b hard to argue against a schoo system which developed the potential of all pupils or whic equipped them for the respor sibilities of citizenship. But, a a well-known radio personali used to say, 'it all depends what you mean by' in this cas potential, and responsibilities of citizenship. The final claric call 'for the challenges of employment in tomorrow's world' appears less equivoca yet the challenges of finding employment in tomorrow's world are not mentioned.

It is easy to be an armchair