

Using Television Critically in Environmental Education

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SUMMARY *This article is a shortened version of one prepared as background to a presentation which the author was invited to give at the International Conference on Environmental Education held in Guangzhou in December 1994. It uses video extracts about environment and development issues in China to explore how television can best be used with interactive teaching techniques to further the aims of a critical education which promotes sustainable development. The article introduces some of the central concepts of media education and describes classroom activities which environment and development educators have borrowed and adapted from this field. Readers may be frustrated by not having the video extracts to watch as they read the article, but their interest may be increased by knowing that the Guangzhou Environmental Protection Board censored the author's presentation on his arrival at the conference. The original article was cut from the proceedings and the interactive presentation was taken out of the programme.*

Introduction

It is by watching television that many of the world's people acquire an awareness and understanding of environments and environmental issues near and far. Images and sounds from television are increasingly significant in shaping their beliefs, attitudes and identities and environmental pressure groups are learning that they can use the medium to their advantage. Much television is an agent of cultural imperialism and homogenisation which supports forms of development which are not ecologically and socially sustainable, but organisations like The Television Trust for the Environment [1] have shown that it can be used to foster sustainable alternatives. *Agenda 21* urges such use and includes this recommendation.

Countries, in co-operation with the the scientific community, should establish ways of employing modern communication technologies for

effective public outreach. National and local educational authorities and relevant United Nations agencies should expand, as appropriate, the use of audio-visual methods, especially in rural areas in mobile units, by producing television and radio programmes for developing countries, involving local participation, employing interactive multimedia methods and integrating advanced methods with folk media. (UN-CED, 1992, ch. 36, section B, paragraph f)

The use of television in environmental education would seem particularly relevant to China, where the continuing process of economic modernisation and reform is resulting in an accelerating increase in the number of television sets and growing concern about the impact of development upon the environment. The following examples of how environmental educators in Britain might use video extracts to explore issues of the environment and sustainable development in China are offered to illustrate our current understanding of the links between environmental and media education and to encourage dialogue between environmental educators in China and the rest of the world. Before considering the extracts, it is necessary to introduce relevant aspects of media education.

Areas of Knowledge and Understanding in Media Education

We increasingly know our environment through the mass media which, re-present it to us. Representations of environments and environmental issues crowd our television screens, yet few of us are educated to watch these in an informed and critical way. Such viewing would draw on a knowledge of the complex elements (economic, technological, institutional, legal, political, cultural and aesthetic) which constitute the production of environmental images. It would reflect an understanding of how media artefacts produce meaning, how people, environments and issues are represented and how audiences are constructed and constituted. This knowledge and understanding would include an appreciation of the changing structure and ownership of the media and the ways in which those with power and control can ensure that certain meanings or representations appear 'natural', obvious or taken for granted. Informed and critical viewers would also understand that media artefacts, like television documentaries, are dominantly constructed in realistic and storytelling modes. Different artefacts or documentaries construct reality and narrative in different ways, serving different interests, and a critical media education (Masterman, 1985; Almarado *et al.*, 1987; Clarke, 1987; Hackman & Hackman, 1989) enables people to reflect and act on how they are constructed and how they might be re-constructed to better serve the interests of democracy, social justice and sustainability.

In her booklet on media education, which forms part of the World Wide Fund for Nature multimedia education pack *The Decade of Destruction: the story of Amazonia's rainforest during the 1980s*, Midwinter (1992, p. 4) suggests that 'media education provides us with a framework for the development of critical skills and understanding of the ways in which the media work, how they produce meanings and how audiences make sense of them'. She draws on the work of the British Film Institute's Education Department to arrive at a summary of the areas of knowledge and understanding which comprise this framework (see

TABLE 1. Areas of knowledge and understanding in media education

Who is communicating and why?	Media agencies	Who produces a text; roles in production process; media institutions; economics and ideology; intentions and results.
What type of text is it?	Media categories	Different media (television, radio, cinema, etc.); forms (documentary, advertising, etc.); genres (science fiction, soap operas, etc.); other ways of categorising texts; how categorisation relates to understanding.
How is it produced?	Media technologies	What kinds of technologies are available to whom, how to use them; the differences they make to the production processes as well as the final product.
How do we know what it means?	Media languages	How the media produce meanings; codes and conventions; narrative structures.
Who receives it and what sense do they make of it?	Media audiences	How audiences are identified, constructed, addressed and reached; how audiences find, choose, consume and respond to texts.
How does it present its subject?	Media representations	The relation between media texts and actual places, people and events, ideas; stereotyping and its consequences.

(Midwinter, 1992, p. 5)

Table 1). Knowledge of the six areas is interdependent and the extracts and classroom activities I will present sample these areas in a way which is summarised in Table 2. The activities are based on those in *The Decade of Destruction* and *Seeing and Perceiving in a World of Change* (Taylor & Richardson, 1979). The extracts are all from documentaries shown on British television in the last two years. They cannot be presented alongside the article in this journal, but the reader can use the descriptions and transcripts to imagine the images they contain.

The relevance of the six key questions and areas in Table 1 to environmental education becomes clear after reading Hansen's introduction to *The Mass Media and Environmental Issues* (Hansen, 1993). He reminds us that such media as television play a key role in the social construction of the environment and environmental issues and that media agencies have considerable power to define what should be the focus of public concern, policy and action. His book brings

TABLE 2. Overview of the areas of media education and classroom activities illustrated by the video extracts

Extract	Areas of media education	Classroom activities
1	Media representations	Quiz
2	Media languages	Sequence analysis
	Media representations	Alternative script
		Statements card game
3	Media representations	Writing and reading reviews
	Media agencies/institutions	Fact or opinion

together researchers from the field of communications theory and their contributions are structured around three themes: the production of environmental coverage; the content of media coverage; the audiences for such coverage. Together they address such questions as:

How far has the rise of the environment on the political agenda been brought about by the mass media? To what extent are the mass media an important or significant agent in the general political process? How far is mass media coverage of the environment structured by the economic context of the media, by the professional norms and practices of journalists, by news values, and by the strategies of information management adopted by the major actors on the environmental stage? Who gets to define what environmental issues are about? How do the mass media contribute to policing the boundaries of public debate about the environment? How do mediated images contribute to the formation of public opinion? In what ways do different publics draw on media representations for making sense of environmental images. (Hansen, 1993, p. xvii)

I will return to the relevance of communications research to a critical environmental education in my conclusions, but now it is time to consider the first video extract.

Extract 1. Buying a Television Set from Women of the Yellow Earth

(Producer: Frances Berrigan, Photographer/Director: John Bulmer, Editor: Alan Bookbinder, Circada for BBC, 1994)

The first extract illustrates the areas of media representations, languages and realism and the classroom activities involving *a quiz* and *image analysis*. The extract follows a young couple from northern China who are about to get married. Before the wedding takes place they go to buy a television set.

Before getting married he must provide a suite of furniture, a tape recorder, a sewing machine, a bicycle, an 18-inch colour TV and a carpet.

A few days before their wedding, ____ and ____ go to town for the most important item on their wedding list, a television set. 'This is the latest model ... That's the video channel ... It will look better on a TV channel ... The most important thing is the quality of the tube.... You judge a TV by its picture.... In some villages you can't get all the channels ... That comes to 1582 yuan ... Come back if you need anything else. I'll give you a discount next time.

Clearly the extract raises all kinds of issues about what the young couple will watch, about who or what will determine what they are able to watch and what they will make of what they see of the wider world. Television will clearly be a modernising influence in their lives and is likely to re-shape the ways in which they think about their environment and act within it. For the moment I want to focus on how the extract represents its subject matter and how we know what the images mean.

Classroom questions that could be asked once pupils had viewed it include:

1. What colour was the bowl in the kitchen?
2. What size TV did the young man have to buy?
3. What was written on the wall as the couple approached the TV shop?
4. What was the young woman wearing?
5. How many pens did the young man have in his top pocket?
6. What was on the channel that they first tuned in to?
7. How was the young man carrying his money?
8. How were the beads arranged on the abacus?
9. What was in the counter cabinet?
10. What colour were the curtains over the shop doorway?

Asking pupils to answer or create such a *quiz* encourages their powers of observation and memory and may encourage greater empathy or ability to put oneself in someone else's shoes and see the world through someone else's (e.g. the young woman's) eyes. It heightens awareness of how people, places and events are represented and can be followed up and extended through an activity called *image analysis*.

While documentaries purport to relate to and document 'reality', the correspondences between image and reality are mediated by the available or selected materials and techniques, the contexts in which they appear and the range of meanings available to the people who view them. Realism depends on denying this process of mediation or the artificial nature of the representation. It appears to reveal 'reality' to us, while making invisible the processes whereby that revelation is made possible. Media education should therefore explore the concept of realism and show that it is based on particular conventions and signifying practices which are themselves historical and ideological constructions. The images in documentaries reflect changing technological possibilities, aesthetic fashions and standards of political 'correctness' and image analysis is one way of focussing pupils' attention on the ways in which images are produced and the denotative (what is in the image?) and connotative (what are the associated ideas?) meanings we bring to them. Pupils should recognise that images construct relations with their spectators that they reflect the contexts of their production, exhibition and circulation and that the meanings people bring to them are shaped by their cultural backgrounds (Jenkins, 1990). Captions and commentaries have the power to fix the meaning of images and it is relatively simple to devise classroom activities which explore the power of the caption or script writer.

In her set of activities for *The Decade of Destruction* pack, Midwinter provides a list of key questions for image analysis which include the following.

- What can you tell about these people from their expressions, gestures and clothes?
- Describe any objects you do not recognise?
- What is the main focus of attention in the picture? What do we look at first?
- How are the people relating to each other and the things around them?
- Can you tell the story behind the picture?
- Can you relate any parts of the picture to your own life?

Answering such questions, perhaps with the aid of still images from the

extract, helps to reveal the media languages (codes and conventions, e.g. framing, editing, pace, mode of address, use of music) used to convey such meanings as the gender relations in the shop, the enormity of the purchase for the young man and the salesman's readiness to overlook any reception problems. You might like to think of some questions you would want to ask to draw pupils' attention to how the images in the extract seek to represent the 'reality' of purchasing a television in rural China.

Extract 2. Leong Yukkay's Story from Growing Up

(Editors: McDonald Brown, Jonathan Morris. Producer: Julian Ware. Director: Bruno Sorrentino. Central Television, 1993)

To illustrate how television documentaries represent environmental problems and the various ideologies which seek to identify their causes and possible solutions, this extract focuses on the part of *Growing Up* which deals with China. *Growing Up* is the first of a series of films which will follow the lives of 11 babies born within a year of the Earth Summit and the project seeks to find out what the Rio Summit will really mean for these new human beings and their parents.

The extract illustrates the areas of media languages and representations and the classroom activities of *sequence analysis*, *alternative script* and a *statements card game*. First run your eye down the list of images which make up this extract. It deals with population growth and industrialisation in China by focussing on a family in Guangzhou. What story do you expect the extract to tell? What messages do you expect it to convey about China's population growth, industrialisation and environmental problems? What do you expect it to recommend China to do? Whose beliefs about China do you expect it to reflect? Whose beliefs are unlikely to be represented?

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|-------|---|
| 00.00 | fields and distant cityscape
closer with pagoda
street with cart and horses
bicycle with trailer |
| 00.19 | poster promoting one child policy
traffic
tower blocks
single child with mother in street |
| 00.42 | poster, white male with sunglasses
video game screen
boy playing video game
new born baby in cot |
| 00.54 | maternity ward |
| 01.05 | title—Kay Kay
Kay Kay's face
couple with child
family group |
| 01.45 | couple with child
couples' father
mother bathing baby |

- 02.15 close up of baby in bath
steam/air pollution at factory
factory interior
Liang at work in Guangzhou paper mill
- 02.56 Liang hauling wood
heavy machinery in paper mill
wood pulping machine
- 03.24 reel of paper
pollution outfall/waste pipe
chimneys
- 03.42 Kay Kay's nursery class
Kay Kay on pot
Kay Kay with mother
- 4.00 factories and air pollution, panning shot
Chinese politician speaking
factories and air pollution—panning shot
British politician speaking
- 4.59 black smoke from chimney
dying trees
people in Eastern Europe with face masks
power station cooling towers
dying trees
children in Eastern Europe with smog masks
dying trees
- 05.34 old man's grey face, zoom in

Now you have had a few minutes to think about your expectations, let us look at the 'reality' as it is re-presented by *Growing Up*.

- Commentary China, the other giant of the Third World, is desperately trying to force its way out of poverty. It is Asia's fastest growing economy and the world's most rapidly industrialising country. Baby Kay Kay is the only child that Zheng and Liang will be able to have under Chinese law.
- Zheng Having our little family, husband, wife and baby, that's the best, the most ideal. Now we've got our baby we are really happy. The country is really moving forward. When we were young we lived in a backward environment, but our children will be thinking in a progressive way. There is no reason for them to be backward like we used to be.
- Liang We hope that each generation will be better off than the last one and that we will all prosper under socialism. The country is urging us to catch up with the four mini-dragons, Hong Kong, Taiwan, Singapore and South Korea. We hope this will carry on for future generations.
- Commentary Kay Kay's family left the countryside to come to Guangzhou, formerly Canton, where her father works in a paper mill.

- Liang All industry in every country pollutes, but our industry first has to grow and get strong and that's when we will be able to worry about pollution control. If a country wants to develop it has to depend on industry and if industry develops quickly then pollution will increase.
- Commentary This policy of industrialisation at all costs can bring material benefits. But there is a high price to pay. Kay Kay is six times more likely to die early of lung cancer than if her parents had gone on living in the clean air of the countryside. China is now the world's biggest burner of coal and plans to double consumption over the next decade, frustrating the world's attempt to control the greenhouse effect. The Rio Summit was supposed to provide the money to enable countries like China to develop in less damaging ways. Until that money is provided, they say, they have no choice but to carry on polluting.
- Li Peng Economic development is essential for the very survival and progress of mankind. For many developing countries their primary task is to develop the economy and to eliminate poverty.
- John Major We have to find a balance between the needs of people and the environments in which they live. We have to find a balance between the exploitation of that environment, which is vital to people's survival, and the conservation of that environment, which is vital to its survival. We have to find a balance between the needs of the living and our obligations to future generations.
- Commentary A generation ago the countries of eastern Europe and the former Soviet Union decided they could not afford pollution control. Today some of their children go to school in smog masks. Pollution in Russia has cut the life expectancy of sixty million people.

The extract can clearly be seen to be advising China not to delay pollution control and not to repeat what it sees as the mistakes of Eastern Europe and the former Soviet Union. Some would find its message somewhat patronising and would want to give greater attention to China's achievements in the field of environmental protection, the West's failure to follow its own advice and its failure to back its demands with appropriate financial transfers. Others would recognize the message and even point to some support for the extract's analysis in China's National Report on Environment and Development:

- As coal will continue to be China's primary source of energy for a considerable period of time, in the absence of major breakthrough in combustion technology and in coal conversion, atmospheric pollution and acid rain hazard are likely to worsen.
- As the industrialization process in China started almost from scratch, grew rather rapidly, and lagged behind in levels of science and technology as well as management, the task of the nation's industrial pollution prevention and control has been very arduous; and fund scarcity is acutely felt. Thus the situation of pollution controlling capacity growing at a slower pace than that required cannot be reversed in the near future. (Yalin, 1992, p. 10)

We could draw pupil's attention to how the extract seeks to represent China's environmental predicament by using the following classroom activities. *Sequence or section analysis* again uses a list of key questions to focus pupils' attention on such things as opening and locating shots, the use of music and sound to create mood, the people who speak to the camera and the ways in which the interviewer structures what is said. In the *Growing Up* extract the images of children and pollution take on a particular resonance and politicians are, for this viewer at least, made to appear somewhat detached from the issues they seek to control. The images of Eastern Europe point to a deadly future unless China changes its ways and one is left with few grounds for hope. Pupils might be given the shot list and be shown the extract without the accompanying sound track. They could then write an *alternative script* putting their own meanings or ideological interpretation on the images or those which they associate with a designated environmental organisation, such as the Guangzhou Environmental Protection Board. For the *statements card game* the teacher shows the extract, puts pupils in groups of five to seven and then gives each pupil four slips of blank paper. On each of these four slips each pupil writes a comment or statement about or arising from the film. The slips are collected, shuffled and dealt and pupils then play a game in which they pick up and put down statements until they hold a hand of three all of which they agree with and none of which they wrote themselves. By sharing the reasons why they chose their statements the pupils develop a greater understanding of how they each perceived the film and the ideological messages which it might convey.

Extract 3. Sequence on the Media in China from The Money Programme

(Executive Producer: Jane Ellison, Series Editor: David Harrison, BBC, 1994)

This final extract raises issues of media control and state regulation of the media. It illustrates the areas of media representations and media agencies/institutions, and the classroom activities *writing and reading reviews* and *fact or opinion*. Critical theorists throughout the world have linked sustainable development to the growth of a critical and participatory democracy, believing that people's common interest in sustainability can only be realised if they have a roughly equal say in how natural resources and services are used or how social and 'natural' systems develop together. A desire for greater democracy unites the new social movements in the West and is a key feature of the political programmes of green socialists, who advocate using new technologies to combine a planned and regulated economy with market mechanisms and a high degree of devolution of economic, political and cultural power. They suggest that democratic production of socially useful knowledge at the local level is one key to sustainability and that this requires greater local ownership and control of the media and greater access for a wide range of contrasting analysis and opinion. While the ownership of the media continues to concentrate in fewer hands, deregulation has produced a wider range of small independent producers and the new technologies of satellite, video, cable and multi-media CD, promise a continued information explosion, which carries both promises as well as threats (Dyson & Humphreys, 1990). A truly democratic society and media in the West remains a distant goal, but without existing elements of critical media it would recede even further.

So against this background of an undemocratic West let us turn our attention to the Chinese media and dominant understandings of democracy in China. New economic freedoms are likely to prompt continued pressure for new political and cultural freedoms and the last extract gives some indication of the present state of play. It deals with the radio programme *Citizen and Society*, which in 1992 began to allow its Shanghai listeners to air their views via a phone-in. Space does not allow a full transcript of this extract, but the following gives some indication of what it contains. Jiang Yi Ren, the Deputy Mayor in charge of industry, is being interviewed after taking part in the programme.

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| Interviewer | Do you think officials here in Shanghai do their jobs better because of programmes like this? |
| Jiang Yi Ren | They are useful. The programme reaches a large area so local people can supervise the government. |
| Interviewer | What difference does it make? How has it changed your job? |
| Jiang Yi Ren | <i>People are very concerned about industrial pollution. We really have to work on it. If people raise problems we don't know about then we deal with them.</i> |
| Commentary | In China's tightly controlled state newspapers a similar pattern is emerging. <i>No challenge to the Party's leadership is permitted</i> but Zhang Ci Yun one of China's most senior editors, does now provide a modest range of opinion in his pages. |
| Zhang Ci Yun | It may not be what the West calls political freedom, but wider consultations is what the Chinese mean by democracy. In the past one or two leaders made a decision and that's the policy. <i>But now people, leaders listen to wider, more opinions and the decision is made on a more balanced basis ...</i> That's what they mean by a more scientific, democratic decision. |
| Winston Lord
(Assistant US
Secretary of State) | There is an argument, it is made not just by Chinese, that if you have political freedom too quickly there will be chaos and so on. I think that is a little condescending and its often a justification to maintain control of the Communist Party. So I don't buy that argument, but again, I'm not going to be so arrogant, nor would our countries, as to say exactly what they should do and we're not telling them to have a multi-party democracy overnight. We're not threatening their system. <i>It will evolve, it will have to evolve, for reasons I've mentioned, to a more open approach.</i> |
| Commentary | China's leaders don't welcome critical comment from abroad. The economy may now be open, but politics and access to information remain tightly controlled by Beijing. Last year private satellite dishes were banned. |
| Zhang Ci Yun | The Western press pay a lot of attention to activities, to individual dissidents, in China. <i>But that is actually not the important issue in the Country when you talk to people in the street.</i> They would say 'We don't know them'. |

- Interviewer If its not an important issue why does it matter if its broadcast?
- Zhang Ci Yun But when you keep beaming the signals about their activities as if it makes it a big issue here. *But actually, its not a big issue here.*

Two possible classroom activities that would allow teachers to draw on thoughts which may be going through pupils' minds having watched that extract are *writing and reading reviews* and *fact or opinion*. *Writing and reading reviews* asks pupils to write their own reviews of a programme and then compare them with those published in the press or available from other sources. It would be of value to Anglo-Chinese understanding for example to show you the complete tape of *The Money Programme*, to ask you to write critical reviews and then for me to use them in translation with my students who are learning about China. *Fact or opinion* asks pupils to work in pairs and use colour markers to highlight on the transcript of a programme or on a review of that programme those statements which they consider to be fact and those which they consider to be opinion. The ratio of fact to opinion in different programmes can be compared, the sources of facts and opinions identified and people's differing assessments of fact and opinion compared. The statements I have marked in bold on the above transcript would be likely to provoke debate as to whether they were facts or opinions and clearly such statements are the focus of continuing debate (McGivering, 1994).

Towards Education for Sustainability Through Media Education

Having reviewed some of the ways in which we can use television critically in the classroom to examine the manner in which the media construct our understanding of environmental issues and environmental politics, it remains to explore the increasing significance of television in global economies of signs and space. Lash & Urry (1994) associate the rise of such disorganised capitalist economies with the processes and flows listed in Table 3 and the increased use of the electronic media for transmitting information and exercising surveillance. Capital now circulates over longer routes at greater velocities and increasingly takes the form of post-industrial information of goods with a cognitive content (e.g. a television news broadcast or documentary) and post-modern goods with primarily aesthetic content (e.g. a pop video or a television advertisement for a jar of Avon face cream). The growth of global media is central to the growth of these economies of signs and space; helping to ensure that consumption replaces work as the main cognitive and moral focus of life and that information and communications structures displace other social structures as the prime determinants of social life.

The rise of global economies of signs and space results in a loss of the previously existing meanings of objects and subjects and of the spatio-temporal contexts in which they are found. This prompts a growing number of individuals to take advantage of increased access to information and cultural competences to create their own meanings, monitor and organise their own individual life narratives and attempt to reshape society itself. The de-traditionalisation and enhanced individualization prompted by disorganised capitalism sets indivi-

TABLE 3. The processes and flows which usher in disorganised capitalism

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- the flowing of capital and technologies to 170 or so individual 'self governing' capitalist countries each concerned to defend its territory;
 - time-space compression in financial markets and the development of a system of global cities;
 - the growth in importance of international producer services;
 - the generalization of risks which know no national boundaries and of the fear of such risks;
 - the putative globalizing of culture and communication structures partly breaking free of territories;
 - the proliferation of forms of reflexivity, individual and institutionalized, cognitive and especially aesthetic;
 - huge increases in personal mobility across the globe;
 - the development of a service class with cosmopolitan tastes especially for endlessly fashionable consumer services provided by one or other category of migrant;
 - the declining effectivity and legitimacy of nation states which are unable to control such disorganized capital flows;
 - the emergence of 'neo-worlds', the kinds of socially and regionally re-engineered cultural spaces which are the typical homelands for cosmopolitan post-modern individuals, e.g. the art world, the financial world, the drug world, the advertising world, the academic world.
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Lash & Urry, 1994, p. 323.

duals free to be self-monitoring or reflexive and the associated transfer of powers, from structure to agency, may prompt demands for new kinds of development, democracy and citizenship.

The demands of reflective individuals for more sustainable kinds of development are often prompted by the information and images they see on television. As we have seen, these can help them to monitor themselves in relation to their society and environment (cognitive reflexivity) and to interpret themselves and their lifeworld (aesthetic reflexivity). Television news broadcasts and documentaries now make more people aware of the environmental costs of global industrialism. They encourage them to view themselves as 'part of' rather than 'apart from' nature, to question modern accounts of progress and the legitimacy of 'Western' science, to adopt a 'global' or 'holistic' view of nature which can be seen to be a subject rather than an object and may warrant special protection and to feel solidarity with other human beings who are distant in either space or time. Much television continues to reflect and reproduce the social structures and processes which shape non-sustainable forms of development, but local responses to globalisation ensure that meanings are frequently constructed in ways which were not intended (Thompson, 1992; Dörmunt, 1993) and that local programming sustains alternative messages and agendas.

In contrast to the pessimism associated with earlier notions of cultural imperialism, social theorists such as Vattimo (1992) suggest that a post-modern society of generalised communication carried through the electronic media can introduce us to a dizzying variety of images, cultures and voices and so sustain and reform the ideal of human enlightenment associated with modernity. The mass media can bring about the dissolution of centralised perspectives and grand narratives and allow more and more subcultures, including radical environmentalism, to have their say. Such media as satellite television can provide the self-consciousness of the whole of humanity and promote the notion of a global community in which we must all learn to live fairly and sustainably

with others. It can expose growing numbers to the multitude of rationalities on which diverse kinds of sustainability might be based in a tolerant and multi-cultural world, but such things can only happen if the media are democratically owned and controlled and people are educated to use them responsibly in the common interest.

Environmental Education, Critical Pedagogy and the Cultural Industries

In his recent writing Giroux (1992) suggests that education for critical citizenship, or what environmental educators would increasingly label 'education for sustainability', should not be addressed primarily as a matter of schooling. The limits on critical pedagogy in schools are considerable and the main advances in developing such pedagogy now lie elsewhere. It is in the realms of social and cultural studies, rather than education, that 'pedagogy as a configuration of textual, verbal and visual practices that seek to engage the processes through which people understand themselves and the ways in which they engage others and their environment' (Giroux, 1992, p. 3) is now best understood and it is in the cultural industries, rather than in schools or universities, that the best examples of critical pedagogy are now to be found. Such pedagogy contests and refigures the construction, presentation and engagement of various forms of images, texts, talk and action, grows out of particular engagements, interests and dialogues and offers examples and insights for the kinds of reflection and action which can greatly facilitate such projects as sustainable community development. Radical environmental educators working in formal educational institutions therefore need to develop links with other cultural workers, such as those working in television, from whom they can gain valuable ideas about the production of knowledge, identities, commitments and political imagination. Together they should use critical pedagogy to link public education to the imperatives of greater democracy and sustainability and this will entail reconstructing both the media and schools as democratic public spheres in which the quality of ethical discourse is the prime consideration.

At a time when identity, culture and cultural politics loom large in the lives of most young people, environmental educators should pay greater attention to such media as television and learn from other cultural workers. This paper has suggested some ideas and classroom activities whereby they might make a start, but the area remains underdeveloped and much in need of further research and curriculum development.

NOTE

- [1] The Television Trust for the Environment can be contacted at TVE Distribution and Training Centre, Postbus 7, 3700 AA Zeist, The Netherlands (fax 31 3404 221484).

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