

## BOOK REVIEW

Annette Gough 1997, *Education and the Environment: Policy, Trends and the Problems of Marginalisation*, Australian Educational Review, No. 39, Australian Council for Educational Research, Melbourne, 204pp., \$34.95, paperback.

### 'telling her story'—two views

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In this highly informative book Annette Gough offers her story about the development of environmental education in Australia, providing a comprehensive overview of the policies, trends, problems and possible futures for it. In this review, based on her wide experience as both 'participant' and 'observer' in environmental education in Australia over the past 20 years, she provides an intensively researched account of: the nature and history of environmental education (chapter 1); contemporary environmental education policies in Australia (chapter 2); environmental education and educational change (chapter 3); alternative perspectives in environmental education (chapter 4); and challenges for the future (chapter 5).

The first chapter 'The emergence of environmental education: a 'history' of the field' gives an overview of the development of environmental education in Australia, and of major developments internationally and how these have influenced environmental education in Australia. As part of this historical overview, the chapter traces the way in which 'environmental education' has come to have a contested meaning by analysing the recent move from 'environmental education' to 'education for sustainable development'. This analysis includes a discussion of the healthy role of contestation which provides the opportunity for continual re-examination of the nature, scope and purposes of environmental education thus allowing for further advancement of the field of environmental education.

Chapter 2 builds on the first by broadening the exploration of contemporary Australian environmental education policies. Here Gough explores three foundational sets of documents in environmental education—UNESCO-UNEP statements, IUCN statements, and Lucas' notion of education in, about and for the environment and examines their influences on environmental education policies at both the state and national levels in Australia. This chapter

also discusses the move within environmental education from science-based towards social science-based subjects as evidenced, for example, in the Statement and Profile documents in Studies of Society and the Environment, one of eight key learning areas in Australia's nationally developed curriculum framework. A brief overview of curriculum developments in environmental education in each state and territory concludes the chapter.

Some of these changes in environmental education are placed within the context of broader changes in the wider field of education in general in chapter 3. Gough traces the effects, for example, of a general move within education from a focus on content to a focus on process and examines how this has influenced similar changes in environmental education—for example, from a focus on purely scientific knowledge to the incorporation of this knowledge into understandings about the development of social processes. It is here that Gough also reviews the debate over the place of environmental education within curricula, that is, whether environmental education should be organised as a separate subject, or as an integrated part of whole curricula. The chapter also explores changing educational paradigms and the role that these and contemporary social theories might play in providing possibilities for or limitations to environmental education.

Chapter 4 which examines three alternative approaches to science-based environmental education—Earth Education, critical environmental education and feminist perspectives on environmental education—would have been more valuable if these three approaches had been illustrated with practical examples and also subjected to critical analysis. For example, consideration could have been given to questions such as "To what extent does the philosophy of Earth Education and its approaches to learning reflect deep ecological perspectives?" and "How relevant is critical theory in a post-modern society?" and "What are the alternative contributions to environmental education theory and practice of the several approaches to feminism?" Gough does, however, discuss why these approaches have remained outside the mainstream of classroom practice despite the considerable attention given them in academic literature. The chapter concludes with a proposal for a socially critical feminist perspective for environmental education.

A selection of ongoing issues and challenges which environmental education has to face in the future are discussed in chapter 5. These include: the need to respond not only to the 'environmental crisis', but also to a growing recognition of and concern for the environment; the role of various environmental philosophies and the rise of 'green' politics; the issues raised by the continuing marginalisation of women and indigenous peoples; the focus in environmental education on the individual rather than the communal; and the possibilities posed by theories such as post-structuralism. *Education and the Environment* concludes with a discussion of the move

from environmental education to education for sustainable living, and an examination of some of the possibilities for environmental education provided by a post-structuralist pedagogy.

Annette Gough's book is a very readable introduction to formal environmental education in Australia both for novices and experienced practitioners. Its succinct overview of this broad field draws together a variety of factors and shows how they have interacted to produce the forms of environmental education with which we are familiar. 🌱

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Annette Gough finishes *Education and the Environment* by saying “I have a passion to work for a more socially just world” (p. 170). Indeed, that is what her book is about and in that statement she draws together the environmental education community who share her goal.

Gough's story is one of her own journey in her thinking about environmental education. The story includes a detailed history of the environmental education movement, and specifically school education, in Australia. It is the most detailed history of the movement published and is a story rich in anecdotes and explanations of key events together with Gough's analysis of these events from her particular perspective. This perspective has changed over time; she openly explains her story and how and why that perspective has changed.

The issues that I wish to raise about Gough's theoretical position are intended to add to the story. My intention is not in any way to diminish the significance of her work and the contribution she makes to the field. The key issue for me in this review is one which Gough herself raises (p. 142):

*Even though there is widespread community concern about the state of the environment, and although environmental education has been on the political agenda in Australia for over two decades, the field has continued to operate on the margins of the formal education arena.*

I believe that if as environmental educators we have failed to solve the problem of the marginalisation of environmental education then perhaps we should critically appraise our approaches. It is important to point out that in the quote above Gough is describing a particular kind of environmental education, one which leads to a more socially just society. She is very critical of instrumentalist forms of environmental education that are principally linked to what she describes as a more scientific paradigm. In fact she is very scathing of 'science'. I wish to take up two points raised by Gough, first her view of science and what it may contribute to environmental education and, second, her preferred theoretical position and the possibility of solving the problem outlined in the quotation above.

Two traditions have been identified in the environmental education literature: science and humanism. Gough refers to humanism more in terms of a social critique of society and a position taken up by socially critical theorists. She explains that this approach has been criticised as being anthropocentric (see Bowers 1993). I do not wish to engage in this debate but, instead, I argue that these two positions should not be treated as incommensurable. Certainly the traditions with their preferred theoretical positions and associated research methodologies have some epistemological differences; this does not mean that there are no 'shared concepts and standards of justification, meaning and truth' across the two traditions, no 'touchstone' (Walker & Evers 1988). It can be argued that there are, and that when taken together the two traditions provide a richer understanding of environmental education. Walker and Evers dispute the view that different traditions and associated research methodologies can be grouped under incommensurable paradigms. This point is raised by Gough in reference to the so called 'paradigm wars'. She claims that the use of the terms 'paradigm' and 'paradigm shift' are problematic (p. 95). Walker and Evers (1994) go further than this, arguing that the idea of incommensurable paradigms is incoherent. Instead, they argue that the respective merits of the different traditions can be judged and brought together in a productive relationship through an epistemological touchstone using pragmatist principles to bring different traditions together to solve shared problems.

I argue that in the environmental education community we need to focus on shared problems. I acknowledge that there are competing theories in any area of knowledge, such as environmental education. I believe, however, that knowledge grows through the competition between different theories. A growth in knowledge occurs when we can identify coherences, or overlap, between theories, and from there tackle the differences between theories in a constructive manner.

The issue is how a theory fits within our whole 'theory of the world', what Quine and Ullian (1978) call our 'web of belief'. We choose a theory that fits best, or else we make revisions elsewhere in the web to accommodate one that does not yet fit. The tasks which we ask our theories to perform are basically to solve problems we encounter in our experience. As environmental educators we need to look at the coherences between various theorists' accounts of the problems, potential solutions they offer and the practicality of achieving solutions in 'real world' situations.

It seems to me that Gough has overlooked the potential of drawing from various theoretical positions, whether they be science or socially critical theory or ecofeminism, in order to solve the problem we share in environmental education problem and for which we need a theory of action if we are to solve it. All the evidence suggests that, to date, we have not developed such a theory of action; unfortunately, one does not emerge from Gough's book. While she provides an excellent analysis of socially critical theory, post-structuralism and ecofeminist perspectives she does not provide a practical theory of action that will address the problem she has established, that is the marginalisation of environmental education in school curricula. I emphasise practical because the theory must be practical. The reality is that most school curricula are structured in terms of disciplines. Any workable solution must take account of what is practicable, what can be changed in such a setting.

I believe that one of the difficulties in the field of environmental education is a tendency to focus on the theory or the process, rather than on the problem to be solved. There is what our society continues to call 'an environmental problem'; Gough is careful to document the fact that there are numerous sources which have identified the problem. The assumption is made that education is potentially an important contributor to the solution. In the environmental education community we have made assumptions about the kinds of education that will best contribute solving 'the environmental problem'. We do this without any significant research that links a theoretical position or set of theoretical positions with any problem solution. We need to be pragmatic about this, we need a theory of action that will solve this problem of the nature of effective environmental education. I propose that such a theory of action would encompass many theoretical positions and related strategies. Such a theory of action would be culturally specific and would draw on theories or a set of theories as appropriate. This theory of action would acknowledge the need to be politically astute, to use policy development as appropriate, to draw on the sciences, to be socially critical and to explore alternatives such as ecofeminism. The issue is to focus on the problem, not lose sight of it in the process of seeking solutions—for which we must carefully research the problem. In other words we need to ask whether particular educational strategies lead to improvements in environment/human relationships and in the health of environments—and how, indeed, we know that.

Like Gough, I believe we should explore multiple stories in order to address the issues within environmental education. However, the essential problem is not the marginalisation of environmental education in school curricula. Marginalisation may be one strategy in the solution set. The problem is how education can lead to solutions to the all-too-obvious results of human/environment estrangement. The solutions to that problem will consist of many strategies. We need to be careful that we do not lose sight of the problem itself, nor the emergent problem of how we and our colleagues with kindred interests, all of us only part-escapees from the linear solutions of modernity, will manage the multi-factored solutions more appropriate to a post-modern world. 🌱

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Copies of *Education and the Environment: Policy, Trends and the Problems of Marginalisation* can be obtained from the Australian Council for Educational Research, Private Bag 55, Camberwell, Victoria 3124.

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