

## *Editorial*

### **Environmental Education: Is it More Than Objective Science and Facts?**

The past year has been an interesting one. Canadians have watched their leaders host controversial meetings concerning Asia/Pacific economic cooperation (APEC), participate in the Kyoto summit, and reject federally proposed endangered species legislation. We have also heard that our government is considering a Multilateral Agreement on Investment. Many teachers watching these events have agonized over their educational role in bringing these issues into our schools. In many ways, these agonies reflect questions fundamental to the nature and purpose of environmental education.

I had a proud moment earlier this year upon learning that my eighteen year old daughter had chosen to participate in the APEC protests. I admired the compassion, passion, and courage that she demonstrated. However, can pride blur vision? A colleague later remarked that he did not have enough information about conditions in countries like China to formulate an informed decision about the APEC protests. Who has the better claim? How much information is enough? What information is needed? Whose information should count? What are the costs of acting on too little information? And, what messages are implicit in taking no action at all? Or waiting until all the facts are in—as if this could ever be possible?

Are these issues about more than just facts? Can educators ever be truly objective? How does a citizen make his or her government accountable for its choices and justify its decisions? These are, of course, the very questions that teachers agonize over. How we choose to answer them will tell us much about our core philosophies in environmental education.

This volume opens with a debate that will challenge readers to examine their own philosophies. In the first article, Michael Sanera argues, based on his evaluations, that much environmental education material is biased and thus undermines students' abilities

to make their own choices. His solution is to develop environmental books with balanced and accurate scientific and economic information. He is particularly interested to see points of view which counter an "apocalyptic tone" which prevails, he believes, in teaching about issues such as global warming. Sanera's critics raise a number of concerns.

Pamela Courtney-Hall questions Sanera's "preoccupation with science" and ponders the importance of ethics, epistemology and history. Deborah Simmons criticizes his focus on the "knowledge dimension" of environmental education at the expense of acquiring other skills and dispositions required to "ask questions and resolve problems." Gregory Smith cautions us against devaluing the importance of citizen activism. He reminds us, for example, that nuclear power activists were once thought "ill-informed or misguided," yet their views "now represent the consensus viewpoint among both scientists and policy makers." Finally, Chet Bowers argues that the "metaphorical nature of language" tends to reproduce the "moral norms of the language community." For Bowers, freedom to make choices and effect changes can only be achieved when the assumptions embedded in scientific metaphors and the language of science are revealed and evaluated: "separating environmental education from cultural considerations . . . leads to environmental miseducation."

This debate will not resolve disputes about a proper role for environmental education; but, it can get us all thinking. And think we must if environmental education is to be a viable and vital enterprise in the next millennium. In a short "analysis" paper, later in this issue, Ann Jarnet reminds us of unfulfilled promises made by nations signatory to Agenda 21, promises to respect and implement environmental education. Her thoughts on "the future of environmental education in Canada" are also an invitation—a challenge—to reexamine our aims. We hope that Volume 4 (1999) of this journal will provide a forum to continue this discussion.

A second group of papers explores and experiments with dimensions of storytelling and narrative inquiry. As Eve D'Aeth suggests in her book review, "narrative is now being increasingly recognized as a way of articulating truths, especially where truths are multiple, complex and dynamic." These papers test this trend.

The first three are primarily narratives with educational applications and theories woven through the text—often to be recognized or elicited by the reader. “A Mythological Wrap” by Louise Profeit-LeBlanc draws on the wisdom of traditional stories of Yukon First Nation Elders. David Jardine reflects on lessons from “birding” and the “teachings of cicadas” as he returns to a place of his early learning. Learning for both these authors, is more than learning the ways of a place “but learning how to carry oneself in such a way that the ways of [a] place might show themselves.” Peter Cole seeks to create a narrative form reminiscent of the oral style of his Nation as he relates and recreates the experience of a conference on “Indigenous traditions and ecology” at Harvard University.

Joe Sheridan, working from the premise that “the wisdom needed by environmental educators is greater than rationality can alone provide,” weaves narrative and analysis in his explorations of mythic meanings. In yet another application of narrative inquiry, Denis Mahoney reports on his investigation of the “stories” played out in the life of “a Canadian community.”

Both Barbara Bader and Alistair Robertson present research from a constructivist perspective. Bader challenges “the illusion of objective knowledge” and the possibility of “technological solutions to so called environmental problems.” Robertson reports his research on student eco-philosophies and argues for inclusion of, and reflection upon, these beliefs during instruction. Both authors direct us to consider the importance of revealing and examining deeply held cultural assumptions.

In conclusion, Leonard Tsuji, Jim Karagatzides, and Evert Nieboer, report a case study, with pedagogical implications, concerning a “topical environmental education issue.” They make a case for “hands on” learning opportunities, particularly in rural regions of Canada.