

THE CHILD IN THE OUTDOOR CLASSROOM

Louise Oberholzer

Museums are joining the field in using the outdoors as a classroom and the experience of the Hout Bay Museum has proved this to be a worthwhile and effective way of teaching environmental conservation. Observation of children during lessons has shown that they often reveal an intuitive understanding of natural processes, yet seem as they grow up to lose contact with this early intuitive response. The reasons for this phenomenon are discussed and the responsibilities that they indicate for teachers are clarified.

A museum is perhaps one of the best places to teach those principles of conservation and an understanding of earth processes that fall under the term 'environmental education'. Here objects of natural wonder are housed. They can be explained with the detail and the thoroughness made possible by the research departments in a museum. The child can come into contact with examples from the world of nature that she might never otherwise encounter. Yet for a child to fully understand Nature, not as a thing out there, but as a process of which he is part, he should come into physical contact with the natural environment. There is a tendency now in museum education to extend the learning experience from the museum to the outside. In a sense this is re-defining the museum which does not stop at the walls which incorporate its objects, but includes the environment outside, which it represents.

At the Outdoor Education Centre of the Hout Bay Museum in the Cape, we have overwhelming evidence that this approach works. A part of the museum lesson is spent in the environment under study; on the mountain, in the river, on the dunes, in the forest. Children here learn not so much by what they are told but by what they experience. They see a river bank held intact by the fibrous web of roots of indigenous riverine plants, while the opposite bank washes away under the weak grip of invasive alien weeds. They touch the grains of sand on the mountain path and see in the sun glinting on the fresh deposits of sand in the bay below the possibility of a new mountain in the making. They discover that the dirty-looking sluggish river, after half an hour's inspection, is teeming with life. These children are discovering process and beginning to see that they too are a part of it.

This experience is exciting to children and some are deeply impressed with the lessons they have learned in this way. My own observation of children in these lessons has shown me that very often their response is a deeply intuitive one. I have become fond of saying that children are born as committed conservationists. General J.C. Smuts, former South African Prime Minister and founder of the concept of 'holism', argues that this response can be traced to far deeper sources in our human origins;

"For we are indeed one with Nature; her genetic fibres run through our being; our physical organs connect us with millions of years of her history; our minds are full of immemorial paths of pre-human experience."

(Smuts, 1926 rep 1987, p.336)

Children particularly seem to have an unconscious awareness of this understanding of Nature - not as a thing but as a great organic field in which the natural processes on the earth are played out.

Yet it seems that in so many cases the child gradually forgets this intuitive understanding of his place in Nature as he approaches adulthood. He lives in a

society today which is consumer orientated and wasteful; which exploits its resources; which creates products that do not degrade and cannot therefore be returned to the cycles of nature; which modifies the physical environment so dramatically that natural processes are altered. In short, many of the actions in our society are in direct contradiction to the laws of Nature.

The junior school child is only just beginning to understand his world, and it is only with the passing of years, with the slow assimilation of the attitudes behind the actions of his society that he finally loses contact with his early intuitive knowledge - his sense of being part of the natural cycle of things. The crux of the whole predicament is not the actions of man, but his attitudes. Moral values essentially are what teaching is all about. It is important for teachers to realise how profoundly pervasive in our society are those attitudes and values that alienate us from our natural environment.

Examples of how man has become alienated from his natural environment are well documented in conservation literature - the child growing up in a built environment, wilderness which has retreated to the nature reserve, computers, television, videos and other intellectual toys which have replaced the vlei and the field. It is even more disquieting to realise just how profoundly these attitudes have influenced even the way we ourselves study nature.

Theodore Roszak, whose books seem to be little known in this country, has given us in *Where the Wasteland Ends* a descriptive account of the changing moral values in our society, and in particular the role that scientific research has played in alienating man from the mysteries of nature. Observations of nature are reduced to only what is purely quantifiable and any serious discussion of our emotional experience of Nature is taboo. The scientific method, in attempting to achieve an impersonal stance in our encounter with nature, succeeds in depersonalising it. In his view, this has profoundly influenced the change in man's moral values towards his natural environment;

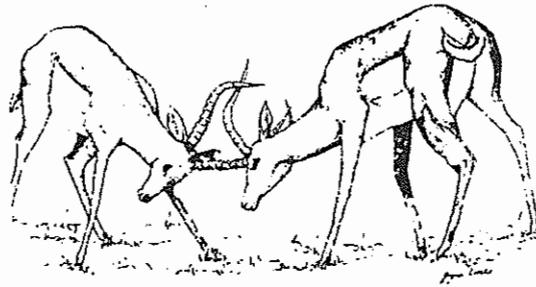
"Only those who have broken off their silent, inner dialogue with man and nature, only those who experience the world as dead, stupid or alien and therefore without a claim for reverence, could ever turn upon their environment and their fellows with the cool and calculating rapacity of industrial society."

(Roszak, 1972, p.154)

It is only when we are aware of how ingrained these moral attitudes in our society are that we can appreciate the difficulty of teaching environmental conservation and the importance of it for society. We need to understand the contradictions inherent in what we teach and the dilemma in which it places the learning child. It is a problem far deeper than values clarification exercises can take us, for what we are confronting is essentially not an intellectual process in the child but a deeply intuitive one. Our role as teachers is not to hold a lesson in the outdoors as much as it is simply to lead the child in, to encourage her by one's own sense of wonder to discover those inner qualities. For such a task there can be no replacement for the natural environment as a classroom. If

Continued on p. 32

Forum



JOURNAL NO. 7 APRIL 1988: *Towards a Participant-centred Resource Development for Environmental Education*

In the normal course of events I would have read Rob O'Donoghue's article, formed my own impressions, and kept them to myself. However, because I had heard some harsh judgements on the paper, from a couple of sources, I would like to communicate my own impressions of it. I hope they will be supportive so that those truly concerned with curriculum development can benefit from what is said.

I think the paper is outstanding, but perhaps this is because it encapsulates in a nutshell many of the points I am continually trying to make to my Masters students, and to curriculum developers in the three curriculum projects with which I am involved. I say TRY, because people are not easily convinced, and tend to brush the comments aside as trivial, irrelevant or, usually, as invalid.

The particular strength of this paper lies in the fact that it is neither the theoretical philosophising typical of many academics, nor is it the undirected, gut-felt observations of someone who lacks a theoretical framework to guide them. Rather the THEORETICAL implications of curriculum development and evaluation have been used to illuminate the problems found in the REALITY of a curriculum project, in order to help understand its successes and failures. This marrying of theory and practice, which I believe to be vitally important, is not often found in reports on science curriculum projects in South Africa (with the notable exception of SEP).

What further strengthens what is said is the fact that Rob O'Donoghue is not just slamming other projects and promoting his own. He has not merely realised where the problems lay with his materials and adapted them accordingly. Formative evaluation is often used in curriculum development, but I have NEVER seen it result in the abandoning of materials in favour of a new strategy to try and achieve the goals which are still seen to be of vital importance. I applaud Rob O'Donoghue's courage in doing so.

I was particularly interested to read what was said because curriculum development and evaluation is my specialist field. When I first heard about 'Action Ecology' (1985 SAAT08 conference, Durban) I looked at it with my theoretical knowledge of curriculum development, and foresaw several problems. By the 1987 conference the materials were at a more advanced stage, and I saw some more serious potential snags, many of which Rob O'Donoghue has now identified for himself.

What further interests me is that those people who are not willing to listen to what is said are going to run into similar problems with their packages. Santyana (1911) observed that those who were not familiar with the past were condemned to repeat its mistakes. I believe, therefore, that PUBLICATION of experiences like this are vital to the whole

curriculum endeavour in this country, if we are to PROGRESS at all.

Martie Sanders
Department of Botany
University of Witwatersrand
1 Jan Smuts Avenue
JOHANNESBURG

JOURNAL NO. 7 APRIL 1988

The Hon. Editor

Please permit me to comment on certain statements made in two of the articles contained in the above-mentioned Journal:

1. *Towards participant-centred resource development for environmental education* (O'Donoghue and Taylor)

In their article on EE Resource development O'Donoghue and Taylor refer to the "soon to be released, programmes, *We Care!* (S.A. Nature Foundation) and *The Outdoor Classroom* (Council for the Environment)" as being examples of programmes that were developed by experts with "little participant contact, probably to be marketed by mail order." The writers go on to say that these resources "might be a new generation of materials that fail to get to learners and engage them in meaningful environmental education."

The Outdoor Classroom (a fieldstudies handbook for teachers and other environmental educators) was prepared by Mr. Frank Opie, lecturer in science education at the Cape Town Teacher's College, in response to a request by the Council for the Environment. (This request was based on a number of recommendations that were made at a workshop that the Council conducted on the 24th March 1985 at which both O'Donoghue and Taylor were present.) The Council is aware of the problems inherent in 'mail order marketing' and from the time of conception it was envisaged that *The Outdoor Classroom* would be introduced to teachers at a series of workshops. The first of these has been budgeted for in the 1988-89 year (and will be run by Opie in Cape Town), and others are being planned for (on a regional basis).

O'Donoghue and Taylor also state (page 5) that "the Shell charts (on ecology) ... have now been discontinued because of syllabus changes ...". Firstly, although some school syllabuses have changed, ecology is still integral to both primary and high school syllabuses. The charts were developed for general use and may still be applied to syllabuses at levels from Standard three to matriculation. Secondly, the charts are in fact still for sale and will be available as long as stocks last.

2. *Perceptions of the environmental education programmes at Pilanesberg National Park: Part 1 - Primary Pupils* (Mahape and Irwin)

In their article on perceptions of the environmental education programme Mahape and Irwin state that the *explanation* (my italics) of ecology given by Hurry and Craig in their book *Tsa Fona Geography Standard 3* is that it is "the study of things in our surroundings". The article goes on to say that "what is interestingly absent however is any direct reference to ecology as the 'study of *interrelationships* of living organisms to each other and to their total environment'".

These statements are misleading on both counts. In the first instance the statement referred to is a

heading in the book alluded to (it was not an explanation), and in the second the text immediately below the heading states (page 6): "When we study ecology we study the way in which things affect each other. For example, the rain helps the plants to grow, the hare is food for the eagle, the rocks break down to give us soil and the water is 'home' for the fish and frogs." (One of many references to 'interrelationships' in the environment.)

It would be appreciated if you could bring these corrections to the attention of your readers.

Dr. L.B. Hurry (Author)
Box 6
Nottingham Road 3280



Natuurhoekie Naturalist's Niche

HONEY BADGERS

One of the fiercest denizens of the African bush is also the most unlikely: who would expect that the small, shuffling honey badger would fearlessly attack a tractor when sufficiently enraged, kill wildebeest and buffalo by biting off their testicles, or give a good account of itself before finally being overpowered and slain by a lion!

In this animal it seems that adrenalin triggers only the 'fight' reaction and not the 'flight'. Stories are legend about honey badgers fighting off packs of dogs, and a famous novel casts one unfortunate character in the painful role of the wildebeest and buffalo mentioned above. When not in the 'fury mode', honey badgers are reportedly docile, playful, responsive to human voices and rather appealing little creatures in every way. Persons who might be tempted to keep a honey badger should seriously consider whether they are prepared to risk the consequences of a sudden fit of pique in their powerful pet! Honey badgers encountered in the wild should be left well alone.

A wide variety of food is taken, especially rodents, lizards, scorpions and spiders. The honey badger has long, powerful nails on the front feet that are used for ripping open the nests of ants, spiders and bees,

John Ledger

tearing bark off trees to catch lizards, and for turning logs and stones to get at creatures sheltering beneath them. In the Kalahari, honey badgers were recorded climbing into thorn trees to reach the chicks of Whitebacked Vultures.

At times honey badgers come into conflict with man. Poultry runs are raided by ripping through the wire mesh, and a frenzy of chicken-killing may ensue. Gin-traps are sometimes set to trap honey badgers, or else they may step into steel jaws set for jackals or caracals. As honey badgers will feed on carrion when they find it, they are also vulnerable to strychnine baits set out for sheep predators.

The damage inflicted by honey badgers on commercial honey enterprises makes them a major problem for beekeepers. It has been estimated that an attack on a beehive can result in the destruction of more than 20 000 young developing bees! The honey badger is in the 'vulnerable' category of South Africa's *Red Data Book - Mammals*. It seems likely that it will soon disappear from agricultural areas and wherever bees are kept on a commercial basis. Tough and aggressive is not a guarantee of survival in the world of tomorrow dominated by man.