THE NATURAL ENVIRONMENT: SOME ADULT PREFERENCES v. EDUCATION

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An argument is presented that some groups of South Africans have little interest in the natural environment. Where interest does occur, it is mainly among the English-speaking, well-educated, affluent adult group. Within this group, the main preference is firstly for an aesthetic experience and secondly for an energetic or relaxational experience. The study experience is of relatively little interest. The importance of these preferences to environmental education is raised and a series of questions posed concerning the relevance of the present type of environmental education to subsequent adult attitudes.

INTROOUCTION

The notes which follow summarise some relevant facts and inferences mainly regarding Whites in South Africa and their concerns with the natural and rural environment. They are presented because they indicate the kinds and degrees of interest which exist and some of the difficulties facing the environmental educator. They were assembled during an (unfavourable) re-assessment of the market for a practical field guide to the environmental components of Natal visible to the adult and the juvenile car traveller.

The writer has spent his working life in many third world countries as a specialist on certain types of natural and rural environmental problems. Yet summarising and popularising the considerable amount of literature to a moderately satisfying standard together with the field work, just for Natal, has taken over four years full time, the task having proved more difficult and protracted than envisaged. Moreover, the work had to appeal to a public whose interests in the rural and natural environment understandably are little concerned with being educated about it. Primarily they are interested in the aesthetic, sensory and physical exercise experiences. To help overcome this difficulty, the work was extended to include material with a social (e.g. environmental histories) and emotional (e.g. humour, myth) impact, another time consuming exercise. Unfortunately, these are forms of mental enjoyment which are not in accord with public preferences.

EVIDENCE FDR APPARENT LACK OF INTEREST IN THE NATURAL ENVIRONMENT

Nature Society Memberships

The 23 000 member Wildlife Society of Southern Africa is made up of ethnic groups in the following approximate percentages of the total ethnic group members in South Africa: Whites 0,5%; Asians 0,0002% and Blacks 0,00001%. The numbers of each ethnic group who are members of the Society expressed as percentages of the total membership are: Whites - English-speaking 80+%; Whites - Afrikaans-speaking 17%; Asians under 1% and Blacks under 1% (Preston, 1987). Considering the White population only, reference to the 1985 population census supplies statistics for the total numbers of families, single persons and children below the age of eight. The Botanical Society readers' survey gives a proportion of 20% for pass-along members. With this information it is possible to estimate the percentages of the White population over seven years of age which are exposed to the Wildlife Society's magazine. These are for South African Whites between 0,6% and 1,4% and for Natal Whites between 1,1% and 2,8%.

The educational qualifications of the members of both the Wildlife Society and the 15 000 strong Botanical Society are similar. In both cases the proportion of members with a tertiary level qualification (degree or equivalent) is 63%. This should be compared with the national average of the 'white group' of just under 6% or the average of all groups of about 1,2% (1985 Population Census). It is apparent that the proportion of people with tertiary qualifications in both the Wildlife and Botanical Societies is over ten times the national average. It can also be shown that about 8% (1 in 12) of white South Africans with a tertiary qualification are members of the Wildlife Society, while only 0,25% (1 in 400) of the 17 times larger White group (who lack tertiary qualifications) are members.

There are several other smaller, amateur organisations connected with particular aspects of the environment e.g. trees, birds, butterflies, many members of which are also likely to be members of one or both of the two largest organisations. Even if one doubles the relevant proportions given above to allow for other societies and keenly interested people who are not members of a nature society, it is evident that judged by this standard, interest in the natural environment by the South African White population is still low. Interest appears to be negligible in the other population groups.

Nature Book Borrowings

Non-fiction books borrowed from the libraries of Natal by adult readers amount to about 11,5% of the total borrowings (figures supplied by the Natal Provincial Library). If only White, Asian and Coloured adult populations are considered (the number of Black borrowers being small) then 30,5% of this combined group borrows books. So, at most, only about 3,5% of the above group borrows non-fiction books. No information is available concerning the numbers of environmental books borrowed.

An estimate may be made as follows: The books of the Natal Society Library are chosen by the librarians on the basis of their experience of public demand. It follows that it is not unreasonable to assume that the proportions of the different classes of books available may not be very different from the proportions of the classes of books borrowed. Using the Dewey classification, a count of the number of books available on environmental topics was made. The various classes expressed as percentages of the total number of adult books available for borrowing are shown next (because the Dewey classification unavoidably groups books of a mainly informative nature along with some mainly having an aesthetic or emotional appeal, the proportions indicate too high a degree of interest in the subject matter itself): Astronomy 0,05%; Meteorology and hydrology 0,01%; Geomorphology, geology, petrology, mineralogy and paleontology 0,05%; Botany plus part biology 0,10%; Zoology plus part biology 0,50%; Anthropology 0,11%; Environment 0,03%; Total percentages equal 0,86%. Put in another way, the quantity of 0,86% of the adult books available for borrowing is equivalent to 0,26% of the total borrowings by Natal's 'non-black' population. This figure, indicating the degree of interest in the natural environment, is similar to that expressing the proportion of Wildlife Society members who lack a tertiary level educational qualification.

Recreation Interests

The main holiday localities in Natal are the Drakensberg mountains, the Zululand game reserves and the coast. The percentages of the total number of beds

and bed spaces (caravan parks) in these localities (referred to collectively as the group) respectively are approximately 5%, 4% and 91%. It is not unreasonable to assume that these proportions reflect their popularity with recreators e.g. 5% of recreators visiting the group localities choose the Drakensberg. This assumption is supported by the findings of Sutcliffe (1981) that 69% of visitors go to the Drakensberg as their primary recreation area.

Sutcliffe (p. 108) places his 27 reasons for visitors choosing the Drakensberg into five classes. Nature study (sic) falls into his third class (definitely *a* consideration when choosing the Drakensberg). 15 reasons fell into the first and second classes and three into the fourth and fifth. Therefore for between 11% and 41% of Drakensberg visitors, nature study was 'definitely *a* consideration'. When the Drakensberg visitors were asked about their choices of 13 alternative Natal recreational areas and six preferred activities, 29 chose a game reserve or St. Lucia where 'nature study' formed two thirds of their preferred activity. In all the other 11 areas chosen by the remaining 71% (most choosing the coast) 'nature study' was chosen as a preferred activity by about 1%. Combining these proportions gives an indication of the interest in nature study in the three main recreation areas of Natal. See Table 1.

TABLE 1 Interest in Nature Study in three main recreation areas

Area	Recreators as % of group recreators	Interest in Nature Study as % of area recreators	as % of group recreators
Drakensberg	5	11 to 41 (a)	0,5 to 2,0
Game reserves and St. Lucia	4	66 (b)	2,6
All other group areas	91	1,3	1,4
Totals	100	-	4,5 to 6,0

With reference to Table 1, the estimate of total interest in nature study is too high for the following reasons:

- The quantities (a) refers to 'nature study' as being 'definitely *a* consideration' i.e. it was one of several considerations and not more than that.
- The term 'nature study' used in connection with the game reserves (b) probably contains more of an aesthetic or spectacular element than a study element. Drakensberg visitors are clearly biased in favour of nature study (a and b) and the necessity for using a sample of such a group to estimate the interest of almost all Natal recreators probably results in an unduly high estimate of the total interest.

Book Publishing

Inquiry from a well known publisher elicited the reply that their publishing of environmental factual literature results in financial loss to them unless their costs are borne by sponsors. Coffee table books with many illustrations and relatively little text may be profitable but not always. With coffee table books, the interest is mainly an aesthetic/emotional one and relatively little concerned with knowledge. Many are bought as gifts.

Self-Educational Interest at Kirstenbosch

According to Eloff (1987) 9% of his sample population went to Kirstenbosch to learn something about plants. Another 5% went there for photography or bird watching As in the case of the Drakensberg, little is known of the reasons why the much greater number of white people did not visit Kirstenbosch, but clearly lack of sufficient interest is one reason.

APPARENT LACK OF OBVIOUS NEED FOR THE NATURAL ENVIRONMENT

A natural land environment produces few articles of food for modern western man. Today they can come from a rural environment; tomorrow we may not need even that environment. The main products of commercial value are the slow-growing hardwoods from the much diminished, ever diminishing and increasingly remote forests. Likewise until about the time of World War II there was a compulsion to construct buildings which minimised the adverse effects of the environment. Nowadays the attention to climatic conditions is less required because electricity, oil or gas have reduced dependence on the natural climate.

The wildlife fields, both animal and plant, provide few opportunities for making a living. A few game ranchers with a high capital investment and a few game reserve or nature conservation specialists employed by civilian authorities comprise the majority. There are some town dwellers who make a partial or full living by occasional visits; people such as photographers and film-makers, writers and artists. A few researchers are employed by various institutions to visit natural and rural environments. The cities offer a greater variety and a greater quantity of senory stimuli in a shorter period of time than does the natural environment. Moreover, one can select for oneself which stimulus or stimuli one prefers. Videos, films, TV programmes, coffee table books of the spectacular components of the natural environment in exotic parts of the world (sometimes showing situations long disappeared) are freely available much more cheaply than a visit to the places themselves. They may be viewed conveniently and in comfort indoors without thought or effort. Why then should one spend time in acquiring sufficient environmental knowledge so that outdoors one can endure with fortitude the possible vicissitudes of a local, more familiar natural environment? In the urban, commercial, industrial west, today's challenges and purposes lie in the human, social and artifactual fields; in the struggle for money, possessions, status, sex; in the competitions, team games and mechanical sports. Today, almost the only western people who need a natural environment are the specialists, some tourists seeking novelty or relief from their urban conditions and those who cater for the tourists and the specialists.

If, in the towns, environmental education takes place mainly indoors, then the main association of the natural environment must be with the lecture room, library and laboratory, the natural environment being needed only for the occasional example of a general principle established indoors. Even in this case there is probably an excellent photograph or recording which can, in a fashion, replace the field observation.

Perhaps, as part of a long continuing process, we are rejecting nature altogether. In the west most of us have retreated indoors away from the natural world outdoors. We have killed off our nature gods or turned them into a child's fairies or bogeys. We have discarded our anthropomorphic gods and seem to be replacing them by the worship of living man and his artefacts. We have replaced our nature myths by science fiction. Even in our aesthetic appreciation, nature has been discarded by all but a relative few. And it is obvious that in the wildlife field nature has been conquered, diminished in numbers and is no longer of significance except where it is too uncomfortable for man to be or too difficult of access.

THE AMOUNT OF KNOWLEDGE REQUIRED FOR USEFUL ENVIRONMENTAL EDUCATION

Implied by the term 'natural environment' are its

components, the atmosphere and climate, water, land forms, soils, minerals, rocks, plants and animals. Within these groups is an extremely large variety of different sub-divisions, many of which are subject to continuous and varied kinds of change. Because of these differences and changes a considerable range of knowledge is required to begin to understand a part of the natural environment.

When we refer to educating a person about his natural environment it is not unlike referring to educating a person in 'science'. That is, it is implied that he is being informed about significant parts of the zoology, botany, geology, geomorphology, hydrology, meteorology, ecology, geography, history, physiology, sociology etc. which are relevant to each of a range of animate and/or inanimate things. If one wishes to include also the rural or semi-natural environment in environmental education then one must add animal husbandry, crop cultivation and forestry, mining, air, land and water transport and water management as the main topics, though this list is not complete. A similar list can be devised for an urban environment to be added to the foregoing.

While acquiring this information, if it can be condensed satisfactorily and into the time available (or allotted by a school curriculum) one has to apply it in the field, that is in the local surroundings. The problems of available time, accessibility, costs and weather then present themselves. In the case of schools, the availability of adequately trained staff also arises.

Most people do not have the time, money, interest or opportunity to concern themselves with any environment other than that in which they live. Even if they did have these attributes it would not be reasonable to expect most of them to undertake the amount of work and the expenditure of time and money required to obtain a modicum of knowledge which they will use only occasionally. Under present conditions most people would, and do, prefer to enjoy the aesthetic, emotional and sensory experiences which the rural environment and such natural environment as remains, and is accessible, can provide. These they can supplement, without effort, by video, TV, coffee table books and so on which again are primarily aesthetic/emotional experiences.

THE IMPORTANCE OF THE AESTHETIC AND SENSORY APPRECIATION OF NATURE

Aesthetic Appreciation of Nature

Turning to aesthetics in general, prior to this century appreciation was concerned with beauty both in nature and art. Today it is concerned mainly with the human arts and their role in human life. Natural beauty is no longer important to most modern westerners, including its philosophers, with a few minor exceptions (Encyclopedia Britanica, 1969).

Rearranging the data provided by Eloff (1987) yields the following information regarding the proportions of visitors who have preferences for specific amenities present in Kirstenbosch Gardens.

Aesthetic appreciation of nature	50%
Enjoyments not directly connected with nature (visiting the restaurant, meditating, visiting a renowned tourist attraction)	23%
Nature study or related hobby	14%
Physical exertion in pleasant surroundings	13%.

Pickles (1982, p.45) provides a table which summarises his assessments of the landscape experiences actually *derived* by visitors to the Drakensberg. This is listed as follows in order by true rank score. (The lower the true rank score, the more highly rated was the experience): Aesthetics 2,8; Physical 2,9; Relaxational 3,3; Solitary/Emotional 4,8; Educational 4,9; Social 5,8; Anticipatory and Reflective 6,1. He also summarises the experiences *sought* by people intending to visit the Drakensberg. Aesthetic, relaxational and physical experiences were ranked first, second and third respectively and 'very important'. Educational and solitary/emotional experiences came next and were regarded as 'quite important'.

Sutcliffe (1981) ranks the three most important reasons for visiting the Drakensberg as the beauty of the accommodation locality, the scenery of the surrounding area and the presence of mountains.

Humour

Study of humorous literature shows that humour (appreciation of the mildly ridiculous) is possible in the natural environment even without wild animals (which can be amusing) if people get into humorous situations. In case this seems a minor issue, one must compare it with the situation in an urban environment where humorous situations are frequent and represent an attraction.

Poetry

Prior to this century, much poetry was devoted to aspects of the natural environment. This is, in the opinion of the author, no longer the case. A glance at the dates given in present-day anthologieas (poetry of birds, poetry of geology etc.) will confirm this.

Song

Perhaps there has been a best-selling pop song on a natural environmental topic, but a scan of titles and first lines does not suggest this. Present day folk music may be more promising, but I have not checked.

Names

A few decades ago flower names for girls were popular. Today who hears of a babe being christened Lily, Rose, Violet etc.?

Crafts

When well done by an experienced man, crafted products can be as admirable as any other work of art. But they are out of fashion and only rarely offer a possibility of considerable gain.

Sensory Appreciation

The sensory experiences are those which give us most satisfaction and most dissatisfaction. Our ever-increasing search for more of those sensory experiences, comfort, convenience and entertainment has been, and still is in the opinion of the writer, responsible for most of the destruction of the natural environment.

THE IMPORTANCE OF THE NATURAL ENVIRONMENT TO PLEASURABLE PHYSICAL EXERTION

The enjoyment of the natural environment may require patience, endurance, fortitude, silence and often solitude and exertion. To a small section of the population having sufficient of these attributes, the environment still offers some challenge even today. To the walkers, the hikers, the mountaineers, the pot-holers, the small boat men, there remains something natural against which to pit their skills and strength, either alone or in small groups.

Pickles (1982) rates the physical experiences (walking, camping, swimming etc.) as second (of eight categories) behind the aesthetic experience compared with sixth place for the educational ex-

perience. Sutcliffe (1981) places them in the second place, after the aesthetic experience. Eloff (1987), referring to Kirstenbosch, places them fourth and last; naturally, because Kirstenbosch does not really offer this opportunity.

CONCLUSIONS

Because of the limited information available, this article has had to deal mainly with the natural environmental interest of special classes of people i.e. mostly those who are affluent, well-educated, urbanised English-speaking White adults who belong to a nature society, those who visited places of inland natural beauty and those who borrowed environmental books. The attitudes towards the natural environment of the 99,6% of South Africa's total population who do not fall into these classes remain unknown though inferences are possible.

It is apparent that there is little recognition of a need for a natural environment in the west. Greater comfort, convenience, purpose and entertainment can be obtained from the artificial environment. With this type of environment, urban man is familiar and finds it simpler, controllable at will and more companiable. It is clear from the fact that a majority of westerners live reasonably happily in great cities without seeing a natural environment that today it is not necessary to most humans.

The amount of knowledge of the natural and rural environments (and man's impact on them) required to obtain a moderate understanding of them (a different matter from awareness of the possible effects of damage to the natural environment) is much larger than is possible to obtain with the opportunities presently available to most westerners. Adequate field experience is equally difficult to obtain. These difficulties may explain, in part, the small amount of interest shown by most adults (of the groups studied) subsequent to their school education.

The importance of the natural environment to the groups investigated appear to lie firstly in its beauties and other sensory satisfactions; secondly in its opportunities for physical challenge. 'Nature study' seems important only to much less than 6% of Natal's adult White recreators.

Concern for the natural environment has been with us for at least 2 000 years. Environmental concern and education are not new things. Books were written on these topics in the 19th century. Nor is knowledge of them restricted to the formally educated (see Costin *et al.*, 1973). In fact, environmental education and conservation was reasonably effective in Burma until the arrival of the British. So some interesting questions arise.

Is it possible, or socially desirable, to train the urbanised children of today (who will be the adults of tomorrow) to reduce their adverse effects on the natural environment by reducing their subsequent apparently insatiable desires for ever increased comfort, convenience and entertainment, desires which are deliberately stimulated by the nature of their society? Today it is fashionable to advocate raising the material standard of living as the most effective way of reducing the human population growth rate. But doubling the standard of living could have a somewhat similar effect on the natural environment as doubling the population.

If it is the sensory, the emotional, the aesthetic and the physical challenge experiences which are sought, varying with the age group, rather than the more difficult knowledge experience, which is of questionable value to most city dwellers, should not the environmental education of school children emphasize these? Greater appreciation of these experiences might lead to a greater desire for conservation at least , among a somewhat greater proportion of the affluent, well-educated English speakers of all races.

Where the natural environment has an immediate survival significance as with the much greater number of rural black people, then different problems need consideration. Many speak no English, have little or no relevant literature in their schools and like many urban Blacks, Whites and Asians, have no spare money for newspapers, books, radios, televisions, transport and recreation in holiday resorts.

Finally, can the immensities, complexities and perceived remoteness of the interacting social, financial and scientific/technical problems resulting from man's involvement with the natural and rural environments ever receive sufficient attention within the limits of present environmental education to favourably affect the subsequent adult attitudes of a significant part of today's children? It seems not, according to the statistics. So something needs to be changed.

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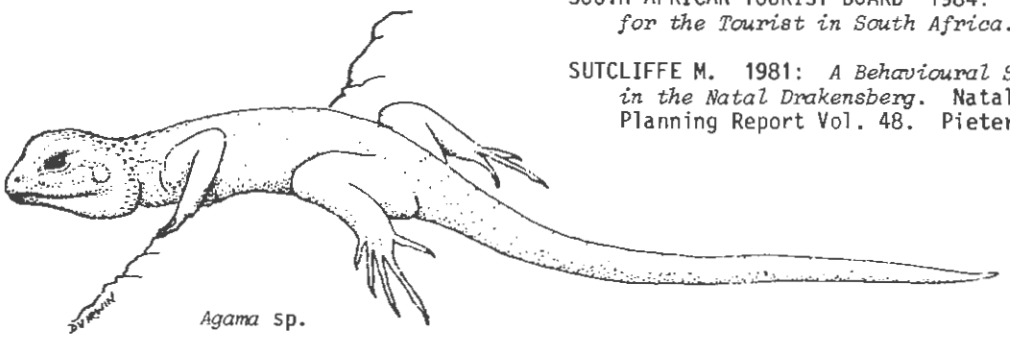

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