

# THE ORIGIN & DEVELOPMENT OF ENVIRONMENTAL EDUCATION - A WORLD PERSPECTIVE



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The modern concept of environmental education is traced from its origins in the nineteenth century, through its early development, to the position of international status which it enjoys today. The changing perceptions of the concept over this period of time are outlined within this context.

## Early beginnings

Although faint origins of education for care of the environment can be traced back to classical Greek times, most notably in the writings of Plato and Theophrastus, the modern concept of environmental education had its roots in nineteenth century Europe. This was a time when the Industrial Revolution had caused a wide-spread alienation of man from nature and the disruption of the continent's formerly homogenous cultural milieu. In addition, Darwin's *Origin of Species*, published in 1859, had brought into question not only the possibility of man's origins but of his entire relationship with the rest of the living world. Reactions to the changing world ranged over a broad spectrum. Romantics mourned the passing of the rustic scene. Wordsworth for example wrote:

"Is then no nook of English ground secure  
From rash assault?.....  
Plead for thy peace, thou beautiful romance  
Of nature; and, if human hearts be dead,  
Speak, passing winds; ye torrents, with your strong  
And constant voice protest against the wrong."

(From *On the Projected Kendal & Windermere Railway*)

On the other hand, educationists such as Jean Pestalozzi, Friedrich Froebel and R. W. Emerson, followed the example of Rousseau in advocating the importance of nature study in a child's education.

In a world being rapidly engulfed by mass production and widespread squalor, other disciplines also began to react and in so doing found areas of common concern. The pioneer sociologist, Frederick LePlay (1806-1882) considered the study of botany to be a significant aid in understanding the nature of society and the term 'ecology' was coined by the philosopher-biologist Ernst Haeckel in 1874. Added to this were the critical rumblings of English writers such as John Ruskin, William Morris and Herbert Spencer. On the other side of the Atlantic, H. D. Thoreau, John Muir and George Perkins Marsh were drawing attention not only to alternatives to industrial despoilation and urban sprawl, but playing a pioneering role in the documentation of natural phenomena and man's im-

pact upon them. Largely as a result of their efforts, 1872 saw the declaration of the world's first national park at Yellowstone. Another result of the momentum generated by these individuals, and their convert, Theodore Roosevelt, who espoused conservation as a major theme in United States policy making, was that conservation studies were introduced in American schools as early as 1908.

The major figure of the nineteenth century, in terms of the actual practice of environmental education, was Patrick Geddes (1854-1933), a Scottish professor of botany and student of LePlay sociology. Dissatisfied with school and university learning and teaching methods, and appalled by Britain's spreading slums and conurbations, he dedicated himself to the improvement of both environment and education. Undoubtedly the founding father of modern environmental education, Geddes' strength lay in his holistic view and, unlike so many of his contemporaries who were concerned only for the rural environment, he foresaw the importance and necessity of beauty and function in towns and cities. Wheeler (1975, p. 4) goes so far as to express the view that "all the elements of the best of present-day enlightened teaching were germinal to his thinking."

Geddes' philosophy found expression in the writings of educational theorists such as John Dewey, Sir John Adams and J. W. Adamson, who in their turn helped to ensure that during the inter war years of the twentieth century teachers were introduced to the idea that learning for young children at least *took place* through contact with the environment. What this in effect meant in many cases was a shift in emphasis from the use of abstract to concrete situations and the fostering of observations through nature study, a movement which did not however take place without some opposition and suspicion.

## The twentieth century

The first half of the twentieth century also saw in both Europe and America a slow but steady increase in popular support for environmental causes, sometimes, as in the new USSR, finding expression in political ideology. An example in Britain was the formation, in 1926, of the Council for the Preservation of Rural England which achieved pioneer status as a pressure group concerning itself with educational as well as with political activity.

The years of World War II proved to be an important period of incubation concerning plans for improving the environment and effecting environmental education. Gradually the terms 'amenity' and 'preservation' gave way to 'conservation' with its much wider implications of planning and management, a process made easier in Europe by the post war enthusiasm for socialism which swept that continent. In several European countries and in the USSR a commitment to environmental conservation was written into the constitution (Bauer, 1969; Mirimanian & Gladkof, 1969; Pritchard, 1969; Szczesny, 1969), and in many countries the late forties and early fifties saw the setting up of national parks systems with 'nature conservancy councils' to run them. There was also a mushrooming of support for private bodies and organisations in America, Europe and much of the British Commonwealth, both commenting on and exercising pressure on behalf of environmental issues including education.

At about this time too the mass media began to support environmental issues, a process which in varying degrees has spread throughout the world and continues to this day. It is a matter of record too that much of the popular enthusiasm for environmental conservation has been due to the eloquence and persuasive leadership of its early media spokesmen such as Aldo Leopold, Sir Peter Scott and Prince Bernhard of the Netherlands. Increasingly they have made conservation an international rather than a national issue. Environmental action groups sprang up in many countries where there had hitherto been little interest in environmental matters. Until then the 'environmental revolution' (Nicholson, 1972) had been largely a middle class concern but it increasingly exerted a new urban proletariat influence with the roots of its thoughts not only in Geddes but also Kropotkin and Marx (Woodcock 1974). The movement was also reinforced by another powerful factor; the growing interest and participation in outdoor activities ranging from mountaineering, sailing and canoeing to orienteering, camping and cross-country running.

By the mid 1950's the importance of education in environmental management was being widely proclaimed and for the natural environment at least, prospects looked promising. It was not however until the late sixties that similar enthusiasm for environmental quality in the urban environment began to emerge. Watts (1969) could in fact at the end of that decade still observe with validity that in most cases the dominant feature of environmental education was still the naturalist element.

The International Union for the Conservation of Nature (IUCN) was formed in 1948, followed by its sister body, the World Wildlife Fund (WWF), in 1961. Both organisations have from their beginning regarded environmental education as an integral part of their function and indeed much of the environmental awareness which currently exists in the developed countries can be attributed to their efforts. Similar credit can be given to the United Nations Environmental Programme (UNEP), founded in 1972, for the growing environmental awareness in the third world. Today the emphasis of all three bodies falls on the underdeveloped parts of the world although the task is by no means complete elsewhere. One of the most important contributions to environmental education to come jointly from these organisations, is the prominence given to the concept in the *World Conservation Strategy*, published in 1980 (Boote, 1980; IUCN, 1980).

This document embodies many of the principles of *real conserve*, a doctrine which argues that in order to place environmental education in its logical context, it must be recognised that the task cannot be reduced to problems of industrial hygiene and the conservation of species, important though they are. The fundamental issues to be dealt with are those of poverty, the grossly unequal distribution of resources and wealth and the day to day hardships of people all over the world. Only when these issues are tackled as part of the solution, can conservation become a reality.

The past 15 years have also seen numerous international meetings and conferences concerned with the issue of environmental education. The most effective of these meetings to date, in terms of focusing attention on the economic, social and political realities of environmental education, have been the 1972 UN Conference on the Human Environment at Stockholm, Sweden, the 1975 UNESCO/UNEP International Workshop on Environmental Education at Belgrade, Yugoslavia and the 1977 UNESCO/UNEP Intergovernmental Conference on Environmental Education at Tbilisi, USSR.

From the latter two have also come the currently most widely accepted statements of principles on environmental education i.e. the *Belgrade Charter on Environmental Education* and the *Tbilisi Declaration* (Fensham, 1976; UNEP, 1977; NAAE, 1978; UNESCO-UNEP, 1978; USDHEW, 1978).

### Synthesis

Viewed in a broad perspective, post World War II environmental education has been characterised by four distinct areas of concern:

- (a) An increasing emphasis on scientific knowledge about the environment. In terms of natural ecosystems the United States played the pioneer role and continues to make a major contribution. The research models developed in that country are now being emulated worldwide. The more recent awareness of the built environment and its complex inter-relationships both within itself and with its rural surroundings, has its spiritual home in Europe. This is not surprising in a continent where 'wide open space' or 'wilderness' is now a comparative rarity.
- (b) The transmission of both knowledge and attitudes about the environment to the public in general. Again much of the credit must go to Americans such as Aldo Leopold who brought into clear focus as one of the most important moral discoveries of our time, the *ecological conscience* – a belief which is centered in an awareness of man's true place as a dependent member of the biotic community. Rachel Carson's *Silent Spring* (1962) began the awakening of environmental consciousness on a worldwide scale, while P.R. Ehrlich (*The Population Bomb* (1968); *Population, Resources and Environment* (1970)) and Barry Commoner (*Science and Survival* (1970); *The Closing Circle* (1972)) have as much as anyone, popularised ecology by bringing it to the attention of the world's ordinary citizens in a language they can understand. In Europe the country which in many aspects of environmental education stands out from others, largely as a result of its own efforts, is the Netherlands. It is arguable that today it has the most environmentally literate population in the world. Other countries such as Australia, South Africa, Zimbabwe, Kenya and Chile have followed some years behind Europe, the USSR and the United States, while yet others such as India, Brazil and Venezuela have made minimal efforts in this direction (Doraiswami & Galushin, 1970; Boote, 1980; Chiapp, 1980).
- (c) The status of environmental education at school level. This issue has thus far been confined largely to the USSR, Europe, North America and lately Australia. Much time and effort has been taken up by the search for definition, aims, objectives and principles. The manner of approach (i.e. single-subject/inter-disciplinary controversy) has also enjoyed a great deal of attention, but the methods of transmission of values and knowledge as well as evaluation have yet to come under the spotlight. Teacher education, possibly the most important aspect of all, has so far received only the most cursory attention.
- (d) A growing awareness of environmental problems and the importance of environmental education in much of Asia and parts of Africa and South America. Much of this development has only taken place in the past 10-15 years. One should not lose sight of the fact however that there are still substantial parts of these continents where environmental education has either not yet been heard of or is still in its infancy.

Thus environmental education in the modern idiom, although started as a reaction to the results of the industrial revolution, has become over the course of a century and a half, a cause of worldwide concern and widespread international support. In many parts of the world conservationists and educationists are attempting to halt or even turn back what the 1975 Belgrade Charter described as a situation of:

“..... increasing deterioration of the physical environment in some forms on a worldwide scale ..... [a condition which] ..... affects all of humanity.” (Hughes-Evans, 1977, p. 69)

No country or group of people can remain unaffected by environmental and conservation battles being waged elsewhere. Apart from obvious influences of pesticides and pollution, there will be no escape from more insidious factors such as the regional, and possibly worldwide, modification of climate which is now only beginning to attract attention. Zimbabwe is a case in point. The use of DDT in that country has been reported at 52 times the recommended WHO level (as reported in the *Zimbabwe Science News*, November 1980, and widely in the Zimbabwean press.) Southern Africa is in every respect a part of international environmental issues and consequently part of the global environmental education process.

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