Conservation and Education

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In any reference to mass education, we sometimes forget how recently it was made compulsory in this country. In some parts of Europe school attendance is still voluntary.

This is worth remembering when reading many of the pretentious books by professional educationalists.

In England it was very convenient for the Government that Dr Arnold's influence in the discredited Public Schools came at the time of Imperial expansion.

Imbued with his ideas of service and natural leadership, these schools provided the officers and administrators for the growing Colonial Empire.

As industry expanded schooling was extended to all classes of society.

The Elementary Schools with their whistles, bells, rigid timetables, drill, and respect for authority, mirrored the factory system for which their pupils were being trained.

It is an interesting aside that before the Industrial Era and one of its products, the mass produced pocket watch, we were not so obsessed with moments of time as now, but more with its rhythms.

Well into the present century communications were poor, travel slow and not always leisurely; writers could still speak of boundless oceans and impenetrable forests.

Except among the disciples of Dr Malthus, John Stuart Mill and others, few questioned the belief that the onward march of science, technology, and education, the expansion of trade, would lead to the continuous growth of wealth for all, universal peace and justice. Such convictions accounted largely for the social stability of those days.

This air of confidence explains too the nostalgic fascination in which Victorian and Edwardian England is held by more doubting generations. Most of us recall the phenomenal impact made throughout Europe by the television serial 'The Forsythe Saga'.

Sadly most of those illusions have been shattered by events and we face an uncertain future with mounting anxiety.

In the era of the microchip, laser beams, genetic engineering, etc., the concept of natural leadership based on a particular educational system is not tenable.

One wonders how much longer our present school system will remain relatively unaffected by these new technologies. Will perhaps some of the large impersonal comprehensives become as outdated as their contemporaries, the high-rise flats?

Will senior pupils attend mainly for tutorials, sport, and art, relying on the new data media for their studies?

Turning to industry it seems incredible that the value of this country's exports alone, average a colossal six billion pounds per month, in what we are told is a recession. What level of production would be needed, at what rate must we dissipate energy and materials to secure full employment?

According to the Institute of Technology at Massachusetts, many of the raw materials essential to modern society may soon be in short supply. One questions the wisdom of exploiting them so wastefully to try to ensure full employment in our consumer-based society.

As one American tycoon observed, "A corporation's efficiency is indicated by the number of men it can release from a job, not by the number of men hired."

On such an industrial treadmill the ecological consequences of full employment could be far more disastrous than the social effects of high unemployment.

These issues are aggravated by world population trends. It took 3,000,000 years to reach the first billion people and another century to reach two billion, thirty more years the third, and a mere fifteen the fourth billion, with the prospect of eight billion by the middle of next century, all expecting to be fed, clothed and housed, and hoping for a higher living standard.

Or put another way, the increase of 70,000,000 per annum is about equal to the combined populations of the U.K. and the Netherlands.

World population is growing exponentially, but the Earth is not.

Numbers, in conjunction with technology of population, are overloading the natural powers of environmental regeneration. Man in fact has become the most destructive element in the total environment.

Jacques Cousteau, David Bellamy, Sir Richard Attenborough and others have made us all too familiar with the melancholy catalogue of our mismanagement - extermination of species, loss of forests, advance of deserts, increased global pollution. They warn us of worse to come. Yet despite a growing awareness it seems

that 'business as usual' remains the slogan.

It is against this sombre background that teachers find it increasingly difficult to give meaning, purpose and hope to young people, many of whom are sceptical about conventional values which they regard as a cavalcade of nonsense, signifying nothing and directed nowhere.

Perhaps 'cable tele' is the modern equivalent of 'bread and circuses' which marked the decline of Rome.

In brief, the problems seemed endless and incapable of solution by conventional thinking.

However, during the sixties ideas developed that perhaps the problems had a common cause, namely the fallacy that continuous growth is both possible and beneficial in a finite environment with limited resources.

The theme of conservation became popular. Books such as 'Small is Beautiful', 'Limits to Growth', 'Silent Spring' and many others sounded the alarm bells and called for a fundamental change of attitude towards our unique planetary home, from that of crude exploitation to care and conservation.

In a speech a few weeks before his death Adlai Stevenson popularised the notion of 'Spaceship Earth', hurtling through the immensity of space, its delicate biosphere sustained by its natural life support systems now under threat from man.

Returning astronauts spoke with awe of the fragile beauty of Earth when viewed from space.

Many organisations, including the Conservation Society, developed the concept of a sustainable society; one which can continue indefinitely and secure for us a way of life which will satisfy our needs and aspirations.

This involves, among other essentials:

The stabilisation and probable reduction of population.

The conservation of all resources, animal, vegetable and mineral.

Respect for the integrity of the natural world, on which we depend, and of which we are part.

Shift of emphasis from material to human values.

A world wide strategy involving Governments.

Any prospect of serious consideration of these proposals was shattered by the 1973 Middle East oil crisis, and the aftermath of inflation, unemployment, recession.

Governments could now maintain that their prime objective was 'to restore the economy', that matters such as conservation were of secondary importance, and would have to await the return of more prosperous times.

While governmental horizons are often limited to the next election, the unchecked growth of world population, industrialisation, and pollution makes the environmental crisis more acute with every year's neglect.

Our own Plymouth Polytechnic has published the warning, 'During the next decade, man must modify his science and technology, his attitudes and values, so that he lives in balance with his environment, instead of overtaxing, eroding and exploiting it in an attempt to meet the demands of a human population far in excess of ecological balance. Failure to do so will mean the end of civilisation, as we know it, possibly even the end of man.'

This is the stark reality, not as some would have us believe, merely the melodramatic opinion of an uninformed minority of cranks.

This warning is repeated by eminent people throughout the world, and is one we ignore at our peril.

Teachers and all concerned with the education of young people are faced with a great responsibility and an equally great opportunity.

They should be persuaded to recognise that Environmental Education is a major priority if present global trends are to be averted.

Suggestions as to how this could be put into practice are given in the attached notes.

For myself I can think of no more 'remarkable and beautiful statement on the environment' than that of Red Indian Chief Seattle in 1854. He probably never went to school.

> 'Teach your children what we have taught our children, that the Earth is our mother. Whatever befalls the Earth befalls the sons of the Earth. If men spit upon the ground, they spit upon themselves. This we know, the Earth does not belong to man, man belongs to the Earth. This we know. All things are connected like the blood which unites a family.
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> 'Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web he does to himself'.

> 'I hope for the sake of posterity that population and wealth will be content to be stationery long before necessity compels them to be.'
> John Stuart Mill, 1857

> 'We travel together, passengers on a little spaceship, dependant on its vulnerable supplies of air and soil; all committed for our safety to its security and peace, preserved from annihilation only by the care, the work, and I will say, the love we give our fragile craft.'
> Adlai Stevenson, U.S. U.N. Representative
> at U.N. Economic and Social Council
> in Geneva, 1965

> 'Your Society, I understand, is one of the pioneers of the concept that conservation means much more than the protection - vital though that is - of endangered bird and animal species, or the avoidance of the more spectacular malpractices of environmental pollution. You can rightly claim some of the credit for the growing awareness, within Britain and internationally, that

man, the chief source of pollution and environmental damage, is himself on the way to becoming an endangered species; that we cannot sensibly talk about conservation and at the same time promote a way of life that consists in the ever more accelerated stripping of the earth of the very materials needed to sustain life.

'Those of us who believe that we have an overriding responsibility, as George Kennan once put it, 'to leave the planet earth in a condition at least no less capable of supporting life, than that in which we found it', have no reasons for believing that mankind is discharging that responsibility to future generations. There is an accumulating body of evidence which reveals that the predominant forms of industry and agriculture in the industrialised world are non-sustainable. We would be deluding ourselves if we believed that a technology based on an abundant supply of cheap fossil fuel can long continue, and it is even more unrealistic to expect it to spread throughout the Third World. Neither the resource base, nor the environment, could stand it.

'The idea of conservation as the creation of sustainable life-support systems can be seen as the most necessary, and also the most challenging of all ideas. What it means in terms of changes in policies towards our own industry and agriculture, and towards aid and development in the Third World, are the kind of questions to which an organisation such as yours should now be addressing itself. We need new types of technological innovation, that take us out of the battle with Nature - for, as E.F. Schumacher once observed, if we win that battle, we are on the losing side. Can we use our vast knowledge of the natural sciences to adapt or recreate technology so that we minimise the use of nonrenewable resources? Can we increase efficiency, maintain and improve our living standards, by substituting human skill and creativity for capital and fossil fuels? Above all, can we organise our productive activities in ways that give people satisfaction in their work and some meaning in their lives?

'In conclusion, I believe that organisations such as the Conservation Society, which have done so much to diagnose some of the drawbacks of conventional industrialisation, should start to move into action to remedy them. I am glad to see that you have involved the Intermediate Technology Development Group in your deliberations over this weekend. It is one of the 'action groups' that has built up an international reputation by demonstrating, not from theory but from practical experience, that technologies which conserve capital and are inexpensive and small enough to be available to practically everyone, can open up new opportunities for people in our own country, as well as in the Third World. I commend to you the favourite dictum of the founder of that Group, that "an ounce of practice is worth a ton of theory".'

Letter from Prince Charles to the Conference
of the Conservation Society at Cheltenham, 1982

'I would define a civilised man as one who can be happily occupied for a lifetime even if he has to need to work for a living.'
Arthur C. Clarke
'Peoples of the Future'

'These are the days when men of all social disciplines and all political faiths seek the comfortable and the accepted, where the man of controversy is looked upon as a disturbing influence, when originality is taken to be a mark of instability.'
J.K. Galbraith
'The Affluent Society'
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THE CONSERVATION TRUST

ENVIRONMENTAL EDUCATION

What is Environmental Education?

This has been variously defined and interpreted - from simple nature studies in the primary school, to post-graduate courses in Environmental Engineering. The most widely accepted definition is that put forward by the I.U.C.N. in 1971 -

'Environmental Education is the process of recognising values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relation between man, his culture, and his biophysical surroundings. Environmental education also entails practice in decision-making and formulation of a code of behaviour about issues concerning environmental quality.'

This definition is rather heavy going, but it is important to distinguish between education through, about and for the environment.

Education through the environment (i.e. using the environment as a teaching aid; e.g. measuring the size of the classroom helps teach simple maths, making a nature table helps teach about the seasons, etc.) This is a

frequently used technique in primary schools.
Education about the environment (i.e. seeking explanations and relationships of environmental phenomena - meteorology, astronomy, biology, geography, etc.) This is the basis of most teaching from the middle school years and upwards.
Education for the environment (i.e. creating a concern for the environment, an awareness of the problems threatening it, and an appreciation of the possible solutions to these problems - ecology, conservation) This is the approach to Environmental Education for which the Conservation Trust was founded in 1970 and that the Conservation Society advocated when it identified the following five educational priorities in Education for our Future (1973) -

1. To make sure that our people and especially our young people have an appreciation of man's place in time and particularly of the critical nature of his present phase.
2. To promote the study of ecology both for its own sake and as a help in understanding the nature of man's present predicament and to base it on adequate fieldwork.
3. To give all our people and especially our young people information in the three interrelated areas of population, resources and environment upon which informed conclusions must be based.
4. To maintain a debate on the social conditions required to effect a smooth transition to a sustainable society and to consider what such a society might be like.
5. To encourage schools, colleges and universities to become more closely involved with the life of the community they serve in order to be able to carry out the tasks enumerated above more effectively.

A valuable document describing different concepts of environmental education, current practice and likely future developments has recently been published by the Dept. of Education and Science (Environmental Education - A Review, H.M.S.O., 1981, #1.95).

What Needs to be Done

1. The Department of Education and Science lays down basic guide lines and policy, and needs to be encouraged to accept Environmental Education as an essential part of 'core curriculum' and individual Members of Parliament should be lobbied to press for this.
2. Local Education Authorities have direct financial control over the staffing of schools, provision of facilities, etc. They need to be approached directly, and through local councillors to ensure that environmental education receives a fair and realistic share of such resources that are available.
3. Individual schools and teachers have the final say over what is actually taught in the classroom. It is therefore only by pressure through them that Environmental Education can finally find its way into the classroom.
4. Traditional or new approach. The argument over whether Environmental Education should be achieved through existing subjects (e.g. Biology, Geography) through new specialist courses (e.g. Environmental Studies), or through some form of integration of subjects (e.g. Humanities) is largely irrelevant here. What matters is that, regardless of the approach, a greater environmental awareness is achieved (see National Surveys into Environmental Education, 1973 and 1978).