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In a world where a technological giant has grabbed the bit in its own teeth, man searches for his lost self and a better world to house it. The current vogue for "environment" is not just a passing human whimsey to spruce up the world; it is the newest chapter in man's continuing search for himself.

Never before have so many of us been so concerned with halting the degradation of land and air and water--with improving the natural quality of living room on this planet--with the agonizing choices and judgments and self-limitations that add up to the shaping of an environmental ethic.

The hopeful aspect of this nationwide quest is the variety of sources and directions from which it is developing. A percolating sense of urgency suggests that an environmental ethic is an idea whose time has come.

Modern man, digging up dinosaur bones and poking his nose cone into outer space, is suddenly and disturbingly aware of the implications of these seemingly unrelated activities. Seen together, they bespeak an enormous timetrack, with a past where no man existed and a future whose shape and character can be guessed at but dimly. Instinctively, in his search for a better world, man is groping his way back toward the center of the web of life.

For a variety of reasons, the search for a better world must begin with man himself. It is he, primarily, who has made the mess, and it is he who will have to live with whatever else he makes of it. Essentially, then, what we pursue is a man-centered environmental ethic. Whether we call it that, or a national policy for the environment, or something yet unthought of, makes little difference. From the conference rooms of the national legislature to the backyards of concerned suburbanites, the search boils down to making the earth an attractive, meaningful, habitable home for man.

In its June 17, 1968, report, the House Subcommittee on Science, Research, and Development noted that "a comprehensive policy toward the environment cannot help but be philosophical rather than specific." The report strongly implied that man must articulate an environmental ethic by stating, "The human race is, in fact, managing the environment today. There is no retreat to a passive, non-interfering Eden-like relationship with nature."

Less than a month later, on July 11, a Special Report to the Senate Committee on Interior and Insular Affairs tackled the environmental ethic directly:

"If it is ethical for man to value his chances for survival, to hope for a decent life for his descendants, to respect the value that other men place upon their lives, and to want to obtain the best that life has to offer without prejudicing

equal opportunities for others, then the cornerstone of environmental policy is ethical. That cornerstone is the maintenance of an environment in which human life is not only possible but may be lived to the fullest possible measures of personal freedom, health, and esthetic satisfaction that can be found. No government is able to guarantee that these values can be realized, but government is able to assist greatly in the maintenance of an environment where such values are at least realizable."

Meanwhile, we continue to inflict grave new injuries upon our environment. The remedies for these injuries to our environment are many and complex but it seems clear that we must meet at least two minimal needs--the need for environmental education of a scope never before undertaken, and the need for a man-centered environmental ethic. Humanity must have both as guides through the technological jungle it has created.

Let us consider first some of the more current consequences of our technology. One of the most vexing hazards confronting us now is the sonic boom. It most certainly is destined to worsen. A blue ribbon group of prominent scientists, in their report last year to the Secretary of the Interior, "Noise and the Sonic Boom in Relation to Man," declared that between 20 and 40 million Americans, in a path  $12\frac{1}{2}$  miles under either side of the flight tracks, will be subjected to from five to 50 sonic booms per day when the expected number of supersonic transport planes is in operation "sometime after 1975."

Each of us, no doubt, has his own description of the effect of a sonic boom. Someone more poetically inclined described it at a recent air pollution conference as "tantamount to living inside a drum beaten by an idiot at insane intervals."

The committee of scientists predicted that many people would resort to protests, to political pressures, to legal procedures and to other active and costly measures to attain relief. Payment of claims for property damage could be expected to reach \$80 million a year, the committee estimated.

But where in America shall we present the bill for the tragic disintegration in Canyon de Chelly National Monument of an 800 year old cliff house--an irreplaceable national treasure, demolished in one split second by a sonic boom.

Our national parks are comparable to the canary in the miner's cap; a stilled voice signalling the presence of death in the mine shaft air. Parks are our early warning system. The pressures on them are the same pressures that threaten our overall environment. The only difference is that because of our commitment to maintain quality in the parks the pressures there make themselves felt earlier. We are forced to choose or lose at a higher point on the environmental scale.

The difference is of small matter. The choices we make in the parks today are the same choices we will make in the cities tomorrow or the day after. They concern noise and pollution and people pressures, and where and when will we choose. How much are we willing to lose? How far down the quality scale will we slide before we decide?

The fragile Everglades National Park is a case in point, and urbanites would do well to take note. This incomparable park in southern Florida has fought off the ravages of a succession of spring droughts and the drainage works of a flood control project that controls one of the park's major flows of water. National public concern rallied in an effort that may yet assure the park its needed annual minimum flow, irrespective of new agricultural and industrial demands.

But now, introduce a regional jet airport into the park's other major drainageway, the Bog Cypress Swamp, and cut both the Swamp and the region north of the Everglades National Park with a proposed 1000-foot wide access corridor to include an interstate highway, pipelines, rapid transit--all the accoutrements of megalopolis. Most of these are federally supported. The park's water problems will soon be compounded with waste, noise, and air pollution. Now let's add the environmental alterations introduced by people pressures--the urban and industrial subdivisions that are certain to follow.

In 1916, Congress established the National Park Service, declaring that it must manage the parks for public use by such means and in such manner as to pass them on unimpaired for future generations, but the environmental havoc goes on. There is no regional plan to accommodate the wrenching alterations or the social, cultural, and aesthetic impact of the proposed airport and the residents in new communities proposed to be drawn there by airport and highway.

In addition to intensifying the water problems, where are the considerations for the effects of shattering noise, noxious fumes, and other pollutants on the park and its visitors? And what will these same environmental smudges mean to the new communities?

We cannot predict precisely what will happen to the fragile ecosystems of the park and to the park experiences of the millions of visitors, but we know that neither will be the same. Where is the input available from the experience of recreational and city planners, the demographers, the biologists, the environmental scientists?

Jetport authorities have yet to demonstrate anything that will offset or minimize our concern for the adverse environmental effects on the park of hodge-podge development. Lip service certainly has been paid to the problem, but the record has been mostly meetings for the sake of meetings and talk for the sake of the record.

What is urban America's stake in all this? As the Everglades National Park expires, our cities listen anxiously. The silence of the canary grows deafening.

And it is not only the land and the living creatures other than man that are suffering from our single-eyed technological pursuit of physical comfort and material progress. Each of us today is in danger, perhaps even in deadly peril, from environmental enemies of our own creation--enemies with which we are physically unequipped to do battle. With our lightning achievement of the ability to alter our environment, evolution has been utterly unable to keep pace. Hence, we humans have no adaptors of the kind that would warn us when the artifacts of comfort and expediency are accompanied by so-called "side effects" that are lethal.

The most frequently heard protest against in-city jetports is aimed at noise. Why? Because we have eyes and ears. Yet Rene DuBos has suggested that pollutants from internal combustion exhausts are affecting our bodies in ways that may not be understood for another 20 years. By the time this knowledge is available, it may well be too late to be of use. The adverse effects on the human race could by that time be irreversible.

Radioactivity is another verse of the same dirge. The hard radiation that destroys our blood platelets or the cell productivity in the marrow of our bones give no warning twinges. We do not have built-in geiger counters and so must rely upon machines which can detect these dangers and translate them into warnings on labels or instructions in operators' manuals. But such warnings are no substitute for the scorched thumb or lacerated toe.

Somehow lacking the organic early warning systems that would be equivalent to eyes and ears and nerve endings, man must substitute environmental awareness that will alert him to unfelt dangers. He must learn respect for the forces he is loosing and which rage unseen, unheard, around him.

To establish our physical and moral well-being in relation to these threats, we find ourselves laboring under two urgent needs: one, for environmental education; the other, for an environmental ethic. To reach at once for the second goal is to insure, almost automatically, our gaining the first.

The job of repairing and restoring our environment is one that must, if it is to be even moderately successful, engage us all. Like charity, an environmental ethic must begin at home.

How do we start? I think we have begun already. Each one of us, as individuals, as members of private and public organizations, has spent more time recently than ever before reading about, considering, trying to cope with environmental problems. The next step, it seems to me, is conscious exploration and research as to how best we can participate in our own special areas and then bring together into an effective national effort this search for ethical answers to our environmental problems.

No organization, at any level, is capable of assuming sole responsibility; all organizations--and all individuals--must be involved.

It is hardly necessary to point out that no longer can we expect the "conservationists" to handle the conservation job. We will need the physical scientists and technologists; we will need also the social scientists and philosophers and artists and generalists. - In short, we can use every ounce of talent and insight and expertise we can muster to turn the tide of environmental degradation.

We have heard that our very survival as a species is at stake. But something more than mere survival is in the balance. Even in the behavioral sinks of overcrowded rat habitats, some survive.

What we are everywhere seeking is survival of the human spirit as well, a sense of being "at home" and "at peace" with our world. Eric Sevareid, at a recent White House luncheon with a conservation theme, counseled that we must look to the land if we would save our souls.

Perhaps we need soul conservation more than soil conservation--an environmental frame of reference in which to live our lives.

Recognizing the need of the National Park Service to relate its programs to the urgent needs of society, we have looked with a new concern to the national parklands which are the superlative examples of the Nation's natural, historic and cultural resources.

As keepers of the standards, we have an awesome responsibility. How best can we use these living standards of excellence in the national search for an environmental ethic?

It is increasingly evident that the whole history of the National Park idea has been the evolution of an environmental ethic. Our interpretive programs, as old as the Service itself, have attempted to communicate to every visitor the excellence each park area embodies, whether its significance be scenic, historic, scientific, or cultural. If we have failed, we decided, it was in not bringing the visitor into the center of his park experience. The parks, like life, are meant to be lived. The answer, we believe, is man himself.

From our inquiry have developed a number of programs which we hope will constitute a first, if modest, step.

The National Environmental Education Development (NEED) program concentrates, in the elementary grades, on teaching appreciation of the natural world, by taking children into the national parks, or other reserves. This natural world, the child learns, is anything he finds around himself.

The intermediate stage of NEED teaches the child about man's uses and abuses of his natural resources. Finally, in senior high school, the materials encourage development of a very personal sense of an environmental ethic.



Another program is the development of Environmental Study Areas on Park System lands possessing potential for this activity. An ESA is an area whose natural, historic, cultural or man-and-nature characteristics are effectively combined with an organized study program to provide an understanding of the total environment and the individual's relationship to it.

The Service is establishing ESAs within the Park System wherever the opportunities and the demands coincide, and is acting as advisor to community groups or school systems which ask for help in setting up their own outdoor environmental laboratories. The emphasis of such study areas is on the total environment, taking into full and careful consideration the historic and cultural milieu as a factor in the inter-relationships between man and his environment.

In order to give environmental education the strong national thrust of the National Park System's total resource package, many hundreds of such study areas are needed, outside the parks as well as in. To stimulate their creation, use and protection by local and state governments, by private citizens and organizations, and by schools--both public and private--the National Park Service has initiated a program to identify and designate such significant study areas as National Environmental Education Landmarks (NEEL).

"Know thyself" was the advice of the gods as written in the temple at Delphi. It is in answer to this need to know oneself that the National Park Service environmental education materials are designed. Starting with man, often troubled and insecure, the program provides strong environmental strands--the "big ideas" that have served as the natural pattern of the ages and have been copied by man in his own uncertain attempts to build a cultural world. On these conceptual strands it leads him carefully and thoughtfully out into the sticky web of his world, like a resident spider surveying his habitat. He learns his world from the center outwards, and in learning, he develops a sense of belonging and involvement. He begins to see his world in terms of the way nature has operated since the beginning of time, and he appreciates the often imperfect but nevertheless similar repetitions of these concepts in the human worlds of history and culture.

I do not present this approach with the implication that we have found the answer. Indeed, the search for a national conscience in the field of conservation has enlisted the energies of men and organizations over many decades.

But, because we feel we are on the right track, we are reaching out to solicit the assistance of those people who might help articulate a truly national ethic, one which places each individual at the center of his personal web of life, helping him to see himself in relation to his world and every other living thing, and in the light of prehistory, history and culture, so that his interactions will be the most satisfying, gratifying, and spiritually edifying it is possible for him to achieve.

This is no small order, but the times are tall and turbulent. They call for an ethic to match them. We have men and women in the fragmented patterns of our modern world--people who could help define a workable ethic, to place our world in perspective, to accommodate man along with our technologic achievements, to bring our environment into human focus.

The gut-lonely human search for a way to make life more bearable--eventually even truly livable--could hardly be more important a subject for the attention of us all.

I turn finally to Freeman Tilden, as I must so often, when I grope for words to express what the national parks mean, and what more they can mean. "Make them a part of your life and thought," he said. "From it will come mental health for the millions."

Tilden spoke not merely of the surface, scenic beauty of the natural park areas, or even of the serenity of our proud historic and cultural areas. "I am convinced," he said, "that there is an Abstract Beauty in the Universe--the Cosmos--that we attempt to describe by our verbal abstractions like Order, Harmony, Justice, Truth, Love . . ."

"If there can be merit in the concept, the implication is that behind the beauty that we sense, there is also the beauty of Nature's order, of the adventure of the human mind; the beauty of the artifact--man's attempt to create beautiful things; and the beauty of human conduct--of behavior of which man in his best moments has shown himself capable."