A VOICE FROM THE WILDERNESS

LEAFING through the pages of books that came out twenty or thirty years ago may be instructive in more ways than one. Some of these volumes have increased in relevance through the years, while others have lost their importance. Yet the books which now we wouldn't even think of reading through may have something to teach, although not what their writers intended.

One such book is Frederick Lewis Allen's The Big Change, brought out in 1952. An editor of Harper's, an Overseer of Harvard University, a highly successful author and a widely read historian of current affairs, Mr. Allen might be expected to know something about what had really been going on in the United States. Rating the achievements of the first fifty years of the twentieth century, for best he settles on what he calls "the democratization of our economic system." The distribution of goods and services was vastly widened during this period. Lumberingly, moving by fits and starts, but with decent moral determination, we did the Right Thing. As he says, we repealed the "Iron Law of Wages," which once dictated that the return for labor always falls to the level at which the most unskilled and desperate man is willing to work. By the midpoint of the century—

We had brought about a virtually automatic redistribution of income from the well-to-do to the less well-to-do. And this did not stall the machine but actually stepped up its power. Just as an individual business seemed to run best when it plowed part of its profits into improvements, so the business system as a whole seemed to run better if you plowed some of the national income into improvements in the income and status of the lower income groups, enabling them to buy more goods and thus to expand the market for everybody. We had discovered a new frontier to open up: the purchasing power of the poor.

That, it seems to me, is the essence of the Great American Discovery. And it has a corollary: that if

you thus bring advantages to a great lot of previously underprivileged people, they will rise to their opportunities and, by and large, will become responsible citizens.

Well, this seems like good American horse Spreading around more money to buy sense. more goods makes the good life. Everyone knows what a good life is-you have what you want, and as much of it as you want. Not having to worry about things makes you responsible. You get freedom to think about the better things. Would anyone arguing against this idea be listened to? Not in America in 1952. But no one, today, is going to read Mr. Allen's book through. His savoring appreciation of our achievement-put in a book to quiet anxiety about "socialism," since our successes have pushed us "past" any such temptations-now seems beside the point. He celebrates a pyrrhic victory.

Four years before *The Big Change* appeared, Fairfield Osborn published another sort of book about what had been going on in the world—Our Plundered Planet (Little, Brown, 1948). In it Mr. Osborn did not presume to declare what he regarded as the Highest Good. Instead he wrote a book to show that, whatever we think makes for human good, we are proceeding in ignorance of its requirements. Mr. Allen looked at the condition of man-American man in the United States—and found it to be on the whole good, making "a heartening story." Mr. Osborn looked at the condition of the earth-all over the earthand found it to be bad and getting worse. He argued, you could say, for justice to the planet. But what is justice for a planet? Does the idea even make sense? Is a planet *alive*?

There are endless definitions of justice, none of them very successful, but one that might stand up, to our way of thinking, is that justice is that condition which interferes the least with growth for all humans and all intelligence. Are we able to describe that condition? Hardly. All we can do is make attempts. For example, in principle, Mr. Allen's idea of justice is rooted in Gandhi's initial educational rule: "God dare not appear to the hungry man except in the form of bread." But it does not follow from this that the same man, once he is properly fed, will then be ready and willing to take instruction from the deity or anyone else. Gandhi's point was simply that, after his pangs of hunger are assuaged, the man has a choice.

Justice. then, establishes appropriate conditions for choice. Will people, when they have this freedom, use it to beneficent ends? Mr. Allen thought so. But in America all they did was acquire a lot of goods. Mr. Osborn thinks the condition of the earth has greater importance. The earth, he suggests, is showing symptoms of incredibly destructive (unjust?) behavior on the part of humans. He wrote his book shortly after World War II, starting with the idea that another and worse war whose effects were unseen by most people-including Mr. Allen-had greater claim on our attention:

The other war, the silent war, eventually the most deadly war, was one in which man has indulged for a long time, blindly and unknowingly. This other world-wide war, still continuing, is bringing more widespread distress to the human race than any that has resulted from armed conflict. It contains potentialities of ultimate disaster greater even than would follow the misuse of atomic power. This other war is man's conflict with nature.

Mr. Osborn knew what deep matters some people would inquire about if he described this deadly conflict—detailing its accumulating effects—but the job he took on did not oblige him to give answers. The questions:

Perhaps some of the thoughts expressed in these pages will evoke questions of a purely philosophic or spiritual kind for one cannot think of man in relationship to nature without at the same time querying, "What is the meaning of man's existence? What significance has the development of man's moral and spiritual qualities?" Such questions, he says, are left to the philosophers. He will attempt only "to show what man has done in recent centuries to the face of the earth and the accumulated velocity with which he is destroying his own life sources." This is the silent, world-wide "war," which spawns armed conflicts such as World Wars I and II. "Its eventual results, if present ways remain uncorrected, point to widespread misery such as human beings have not yet experienced, and threaten, at the end, even man's very survival."

Happily it is no longer necessary to tell what is in Mr. Osborn's book. His and the conclusions of numerous other planetary stewards are becoming well known. The depredations of man are no longer left undescribed and the threat to the common future of all on earth is pictured in ardent yet responsible rhetoric. We are being moved to attempt a few changes, although, as many are saying, the changes come too slowly, are often in the charge of the wrong hands, and are not extensive enough. They don't, the critics assert, go to the root.

But what is the root? Are we, with this question, asking about the nature of man and his interests-his right and wrong interests-or are we asking about the world and its health? Obviously, we are asking about both. There is no useful study of man without attention to his environment, and no relevant earth science without multiple relations to a science of man. Even "purely philosophic" inquiry will combine the two areas. Man, as Ortega said, is himself and his circumstances, and "the meaning of man's existence" lies in the way he uses his circumstances and in what he thinks they are for. So much that we have done thus far (our collective action as societies and nations) has come to some kind of grief, making it reasonable to conclude that there have been basic and continuing mistakes.

What has been common to all such projects? Most of them, it seems clear, began as part of the general flight from want and pain. What could be more natural for human beings who are hungry and oppressed? But by reason of this driving intention we have confined our thinking about human good to a pleasure/pain continuum. Pain and want are bad—no doubt about it—and pleasure and plenty look good. The logic seems clear: The more pain and want, the worse the human condition, and the more pleasure and plenty, the better it gets.

But this formulation is simply not true. The last half, that is, is not true. The activities of the past century have been based on it—as Mr. Allen claimed and showed—but the proposition is untrue and has not worked out as we expected. The proposition is no longer even plausible, although most human planning—the prescriptive planning for a good society—still lacks any other guiding perspective.

Needless to say, anyone who proposes another foundation for planning would be bitterly attacked. It is well known that the pleasure and plenty of this world are monopolized and carefully guarded by a small minority. This obvious injustice must be remedied, people say, before we even think about anything else. They might even quote Gandhi (selectively) to prove they are right. But the trouble with this contention is that no one has any acceptable idea of what might be *enough* pleasure and plenty. The level of "enough" keeps on going up, since its measure is determined by comparison with the amount of possessions belonging to people who have far too much. (The idea of Good has not really changed at all.) It is the old story of the bread philosophy. After you get the bread you have no philosophy. The meaning sought has been consumed with the bread, so of course you want more and more.

This is the underlying message of E. F. Schumacher's critique of large-scale production economics. For about two hundred years this activity has been regarded as the solution to all significant human problems. The pursuit of greater production has carried us far beyond the natural limit of "enough," and the resulting inequities have blinded us to flaws in the assumption that having more is the way to the good life. Having enough is essential to decent survival. Having more than enough does not make life good. As Schumacher put it in a comment on papers presented at the 1972 Stockholm Conference:

The "logic of production" is neither the logic of life nor that of society. It is a small and subservient part of both. Its destructive effects cannot be brought under control-so that the destructive forces cease to be unleashed. The chance of mitigating the rate of resource depletion or of bringing harmony into the relationship between man and his environment is nonexistent as long as there is no idea anywhere of a lifestyle which treats Enough as good and More-thanenough as being of evil. Here lies the real challenge, and no amount of technical ingenuity can evade it. The environment, in its own language, is telling us that we are moving along the wrong path, and acceleration in the wrong direction will not put us right. When people call for "moral choices" in accordance with "new values," this means nothing unless it means the overcoming of the materialistic lifestyle of the modern world and the reinstatement of some authentic moral teaching.

Fairfield Osborn speaks of the philosophic questions raised by environmental disaster, but devotes himself to recounting its effects. Schumacher, twenty-five years later, uses these effects and his practical remedies for them to get attention, then focuses on the philosophic issues:

The problem posed by environmental deterioration is not primarily a technical problem; if it were, it would not have arisen in its acutest form in the technologically most advanced societies. It does not stem from scientific or technical incompetence, or from insufficient scientific education, or from a lack of information, or from any shortage of trained manpower, or lack of money for research. It stems from the lifestyle of the modern world, which in turn arises from its most basic beliefs—its metaphysics, if you like, or its religion.

The whole of human life, it must be said, is a dialogue between man and his environment, a sequence of questions and responses. We pose questions to the universe by what we do, and the universe, by its response, informs us whether our actions fit into its laws or not. Small transgressions

evoke limited or mild responses; large transgressions evoke general, threatening, and possibly violent responses. The very universality of the environmental crisis indicates the universality of our transgressions. It is the philosophy-or metaphysics-of materialism which is being challenged, and the challenge comes not from a few saints and sages, but from the environment. This is a new situation. At all times, in all societies, in all parts of the world, the saints and sages have warned against materialism and pleaded for a more realistic order of priorities. The languages have differed, the symbols have varied, but the essential message has been the same-in modern terms: Get your priorities right; in Christian terms: "Seek ye first the kingdom of God, and all these things (the material things which you also need) shall be added unto you."

One statement in this general analysis—which seems exactly right-needs further examination. The universe or nature, Schumacher says, responds to what we do by informing us of "whether our actions fit into its laws or not." Well, nature certainly informs us of our serious transgressions. "You're going to have to stop doing this and this," is the ecological version of the voice from the wilderness. Every day the list of prohibitions is added to by some new translator. What about when we do things right? Nature seems practically silent on the subject. When your digestion is good, all that happens is that you feel no pain. Nature, you might say, may glow with quiet delight, her beauties may be enhanced, but she doesn't slap us on the back with noisy approval. We are not especially rewarded for doing what ought to come naturally. We might of course get really healthy, even happy, causing other people to wonder why.

There are some things which are immediately reduced by being given honorific names. The good, like virtue, tends to be falsified when it is singled out for praise. The same thing happens to communicable truth. If you talk about it too much it contracts into а formula-and that, unfortunately, is the time when the masses begin to give it their close attention. It seems as if one mustn't ever do what is right only because righteousness pays off. But it really pays off,

Schumacher suggests, when the motive for doing right is not part of any deal.

The lovers of nature have always known this. Making deals is never good enough, Aldo Leopold said. A calculated, prudential care of the environment always sells out too soon. You have to love the land, is the way he put it.

The trouble with relying on deals is that our relations with the environment (and other people) involve future developments which we cannot possibly anticipate. We are not smart enough. Nobody knows enough. We make our deals in terms of visible values, realizable rewards, ignoring all but clear and present danger. What businessman would—or would be permitted by his stockholders to—do otherwise? The blindness of all "deals" to intrinsic values is shown by some passages in an excellent book on planning, John Friedmann's *Retracking America* (Anchor, 1973).

The market works with almost classic simplicity. Its system of prices aggregates the private utilities of buyers and sellers. Under existing arrangements, however, it is incapable of taking into account the values of a community of individuals and families or, indeed, of social collectivities of any sort. Therefore, while transactions in the marketplace may lead to private gains and satisfactions, they may have disastrous consequences for the community and its environment.

Why do motorists continue to foul the air with toxic gases? Because the price of cars and gasoline does not include the costs of damage done to health and to amenities in the community where the poisoned air must be breathed. If these costs could be included, the expense of private motor transportation might become prohibitive for daily use, and air pollution would diminish in proportion. Pollution is a collective phenomenon....

Not far from Los Angeles, across the mountains in the Mohave Desert, a new international airport is planned for construction. When completed, it will be able to handle an estimated hundred million passengers a year. In the short time that has elapsed since its location was decided, land values in the area have risen tenfold. Powerful private interests, long conscious of this possibility, successfully lobbied with the state some years ago to divert water from the surplus areas in northern California and carry it through a marvelously engineered system of canals to the south. Within a few decades, the Mohave Desert may become fully urbanized but the people of Los Angeles were never asked whether they wanted still another million people in their spreading metropolis. Yet the costs imposed on them by this "spontaneous" growth—in further pollution, further congestion, further sprawl, further misgovernment, further outward flow of central populations and the resulting readjustment needed throughout the metropolis-are not absorbed by the developers. No doubt some pocketbooks will bulge, new fortunes will be made. The speculators have already cashed in on the promise of future public improvements. But the growth of Palmdale City will not reflect a public choice. It will come into being as a collective phenomenon and its existence is likely to impose a substantial burden on future generations of Angelenos.

What can one do-which is to ask-what can a human community do-to avoid such mistakes and future-despoiling programs? The remedy proposed by this writer is to change the mechanism of the market system so that people get charged *in advance* for the trouble they are likely to make-the "costs," as we say, of what they do to both the natural and the social environment. This way of solving problems by changing the terms of deals might work up to a point, but who is wise enough to anticipate all or even the worst future trouble that might result from activities that, right now, may look perfectly innocent; and who, when it comes to imposing a price on the activities known to be potentially harmful, will work out the calculus of costs? And who, finally, will enforce this system of politicoeconomic controls? No doubt we can do something along these lines, but can it be enough to make a real difference? The idea, in a nutshell, is to make "sin" so expensive that everybody will prefer to be good. (It ignores the fact that a sinner is a fellow who thinks he knows how to beat the game.)

Such efforts seem reasonable only so long as they remain modest and ineffectual. Beyond that point, which means adding real constraints, they can be recognized, even in theory, as a species of totalitarian ideology. Another way of looking at it would be to suggest that the "deals" approach to the preservation of environmental and social good can be expected to work only within common sense limits of "enough." If acquisitive enterprise exceeds those limits, then external remedies become an attempt to enforce a "philosophy of life." Well, we do have a choice. We can either practice Buddhist economics or call the cops.

REVIEW form into meaning

THE spirit of scientific inquiry is changing. For centuries it has focused on the physical properties of external nature, mainly in order to become more adept in our use of the world's resources. This seemed a natural and sensible thing to do. Knowledge, as Bacon said, is power, and science was the means of acquiring knowledge in order to turn it into power.

The new spirit lies in an emphasis on the quest for meaning. How is meaning revealed? By studying what we want to know about in its own terms. not according to some abstract preconception. This applies to the scientific study of ourselves as well as everything else, as Abraham Maslow, a pioneer of the change in psychology, said nearly fifteen years ago. In a paper called "The Creative Attitude," published in the Structurist (University of Saskatchewan, Saskatoon, 1963), he wrote this about "problemsolving":

The best way to view a present problem is to give it all you've got, to study *it* and its nature, to perceive *within* it the intrinsic interrelationships, to discover (rather than to invent) the answer to the problem within the problem itself....

The other way is merely a matter of shuffling over past experiences, past habits, past knowledge to find out in what respects this current situation is similar to some situation in the past, i.e., to classify it, and then to use *now* the solution that once worked for the similar problems in the past. This can be likened to the work of a filing clerk. I have called it "rubricizing." And it works well enough to the extent that the present is like the past.

But obviously it doesn't work insofar as the matter-in-hand is different from the past. The file clerk approach fails then....

Often we use the present not for its own sake but in order to prepare for the future. Think how often in a conversation we put on a listening face as the other person talks, secretly preparing what we are going to say... If we are totally listening or totally looking, we have thereby given up this kind of "preparing for the future." We don't treat the present as merely a means to some future end (thereby devaluating the present). And obviously, this kind of forgetting the future is a prerequisite to total involvement with the present. Just as obviously, a good way to "forget" the future is not to be apprehensive about it.

This was Maslow's way of practicing psychology. He looked directly at the inner life of human beings. At times it seems an almost "objectless" sort of research—Taoistic, Maslow called it. It is not a grabby approach to nature, but looking at things in a musing, dwelling, savoring mood. It is also a trusting mood expecting to find out what we are able or is possible to know, with nothing illicit in the transaction.

The beginnings of a similar change in physical science may be illustrated by Theodor Schwerk's *Sensitive Chaos* (Schocken, 1976, \$14.95), a beautiful book on that primordial host and element of all natural life—water. The author studies water, its motions and transformations, its fluid forms and architectonic effects (there are many illustrations) by "dwelling" in this omnipresent element. He contrasts this mode of study with the technical approach which regards water as no more than something to be *used*:

Leonardo, who may be considered the first man to make systematic experiments with water in the modern sense of the word, still perceived the wonders of this element and its relationship with the developing forms of living creatures. Natural philosophy in the time of Goethe and the Romantic movement still gave water its place as the image of all liquids and the bearer of the living formative processes. People experienced the fluid element to be the universal element, not yet solidified but remaining open to outside influences, the unformed, indeterminate element, ready to receive definite form; they knew it as the "sensitive chaos" (Novalis, Fragmente).

With the multiplication of the practical uses of water, the way of thinking about it altered:

The more man learned to know the physical nature of water and to use it technically, the more his knowledge of the soul and spirit of this element faded. This was a basic change of attitude, for man now looked no longer at the *being* of water but merely at its physical value. Man gradually learnt to subject water to the needs of his great technical achievements. Today he is able to subdue its might, to accumulate vast quantities of water artificially behind gigantic dams, and to send it down through enormous pipes as flowing energy into the turbines of power stations. He knows how to utilize its physical force with astonishing effectiveness....

But what was at first considered with satisfaction to be a great and final achievement is now calling forth a response from nature which asks for second thoughts, and opens up great questions. Whereas it then seemed profitable and advantageous to dry out moors and make them arable, to deforest the land, to straighten rivers, to remove hedges and transform landscapes, today it is being realized that essential, vital functions of the whole organism of nature have very often suffered and been badly damaged by these methods.

A way of thinking that is directed solely to what is profitable cannot perceive the vital coherence of all things in nature. We must today learn from nature how uneconomical and shortsighted our way of thinking has been. Indeed, everywhere a change is now coming about; the recognition of a vital coherence among living things is gaining ground.

In this book, the author gives the fruit of his meditative dwelling in the fluid element, as intense an activity for him as was Maslow's conscious occupation of the subjective regions of human experience. Appropriately, Jacques Cousteau, a man more at home in the sea than on land, writes the Preface to *Sensitive Chaos*.

Books like this one are concerned with the basic stuff of existence. But all that we know of such stuff is learned from its flow in visible structures. The shapes and motions of form are accessible to our minds, giving the knowledge upon which the sciences are based. The new spirit in science wants to know more, but this requires going beyond—or behind—shapes and motions. There is thus another step to be taken—the step from form or structure to the meaning.

Our present science is almost exclusively concerned with dynamics, how matter and life move about. But knowledge of dynamics, as Theodor Schwenk suggests, if exploited without awareness of "the vital coherence" among all things, heaps up disaster for human beings. Form follows function, and functions are clues to meaning. Arthur Young's *The Geometry of Meaning* (Delacorte Press, 1976, \$4.95) undertakes the ordering of these clues—a study of the flow of form into meaning. The author begins:

"All meaning is an angle."

I don't know where I first encountered this enigmatic statement. I do recall that its origin was said to be in ancient Egypt, and I draw great comfort from this confirmation that there was at one time, perhaps so long ago that it was not even registered by Greek thought, a tradition that reflected the same conclusions I have reached after a lifelong effort to formulate meanings without reverting to the circularity found, for example, in dictionary definitions.

This is a serious book concerned with ultimate meanings—hazardous matters to put into words. We all know the traps involved. Every time you make a generalization, you shut out all the content not included or implied by what you say. This seems hardly acceptable since, concerning ultimate matters, you have the feeling that *nothing* should be shut out. But this means keeping still! There is, however, a way out of the paradox, found by *stating* the paradox. Lao tse began his little book on ultimate things by saying: "The Tao which can be expressed in words is not the eternal Tao; the name which can be uttered is not its eternal name."

We lack the skill to reproduce briefly Mr. Young's development of meaning from his mode of mathematical reasoning. It is well within a layman's grasp, but so structured in interdependent layers that isolated examples would only confuse. We might say, simply, that the section on free will (all meaning depends upon its presence in our lives) is one of the most searching and satisfying discussions of this subject we have read.

Here is an example of Mr. Young's thinking:

. . . scientists are still seeing only from the outside. As manipulators, they are not experiencing

the terms they manipulate. To talk about the force of attraction is quite different from to be hungry or to be in love. The scientist speaks of gravitational force and nuclear force with the same aplomb despite the fact that the latter is 10^{39} times greater. Why not? Well, just to display this difference on the same graph would require that we compare the diameter of the universe (10^{26} centimeters) to its smallest possible distance, the diameter of a proton (10^{-13} centimeter).

It is customary to think of love, attraction, pleasure, pain, etc., as subjective, not "out there" in the universe. Hume is immortalized in histories of philosophy because he showed that we do not know causality objectively. It is a mental habit. The history of Western thought has tended first to divide the universe into interior and exterior, and then to discredit the interior by saying it is not there, or is purely "subjective," by which is meant interior to persons.

What is overlooked in this reasoning is that the universe also includes the nonobjective factor. The proton attracts the electron; the nuclear force binds the atom; the planets move in closed orbits; the *universe has feelings*. Physicists call them forces. To deny their existence in favor of objective "formulations" is pure sophistry.

Mr. Young restores the subjective factor to scientific thinking—which is to say that he restores *thinking* to scientific thinking—making it quite different from bookkeeping or filing-clerk science.

COMMENTARY THE CRITICAL ISSUE

IN *Our Plundered Planet* (1948) Fairfield Osborn described in grim detail what has been happening to the earth as a result of the everyday habits of Americans. *The Brotherhood of Oil* (University of Chicago Press) by Robert Engler is a detailed account of what, with the general consent of Americans as "consumers," these habits have been doing to the culture of the United States. Throughout his book, Mr. Engler stresses the farreaching character of the required changes:

The United States remains without a significant conservation program. Where there is official acceptance of the worth of slowing down the growth rate of per capita energy consumption, the burden is generally placed on the individual. Such appeals cynically manipulate the liberal ethic with the implication that if each person would refrain from tossing beer cans, would drive a little slower and install exhaust devices on his car's tailpipe, would bring old newspapers to salvage centers, would exercise caution on the job, and would take the pledge to have fewer children, then people, machines, and nature would once more be in harmony. And that if corporations would lower the sulphur content of the fuels in their furnaces and put filters on their chimneys, if Consolidated Edison would urge restraint in the use of air conditioners, and if Consolidation Coal would plant hardy grass after strip mining, then the nation would be binding up the wounds of development successfully.

The critical issue remains untouched. Fundamental ecological thinking must go beyond the end products of the industrial system—its garbage, sewage, exhaust, and resource depletion. Thoroughgoing energy planning requires end-use planning which defines communally desirable and undesirable uses of energy....

A rural renaissance will not provide the answers for all or even most of social ills. But fundamental land reform which would make farm land accessible, especially to those interested in a more natural farming, could be a valuable component of regional energy planning. It will require regional land banks and trusts to prevent remaining farm lands from being turned over to oil corporate developers and other absentee owners. Thus, the technological review to be sought must extend far beyond the immediate arena of alternative energy sources if there is to be a successful challenge to corporate socialism and the pervasive human malaise of modern industrial life.

Mr. Engler's book needs to be read. But people wanting to retain a balance of sanity will read *Small Is Beautiful* at the same time.

CHILDREN ... and Ourselves

TWO SEMI-UTOPIAN PLACES

IN *Proposal for a New College* (London: Heinemann, 1977), Peter Abbs and Graham Carey list the jobs that have to be done to keep going a college with 800 students—half of whom live at the college. Not counting the teachers, these jobs employ 141 people—administrators and domestic staff. The authors comment:

Taking into account the number of students who reside out of college it is possible to arrive at a ratio of one non-teaching staff member to every four or five students. This is nearly two for every one member of the academic staff. This is not only costly but, on the educational principles we have developed in this book, absurd.

No wonder the small colleges can't survive. On the other hand, should they?

In a conversation with Alvin Duskin (founder of Emerson College) back in the 60s, Paul Goodman offered a kind of solution. Don't start an "institution." Just offer to teach. Beg, cadge, or rent some space somewhere and teach. As for management:

I'm not terribly impressed by what they call the difficulties of administration. You know, in a present-day European university many of the problems just don't exist. I'll give you an example.

A guy has to take a Ph.D. exam. Not long ago. I think it was at the University of Vienna. He doesn't know the date on which the professors are going to give him the orals. So he goes around to the professors and they say, "We'll set a date and you'll be notified."

But he says, "I gotta know."

"Well," they say, "go ask the rector."

So he does, but the rector says, "How the devil would I know? I'm just the rector for one year. How would I know? Ask the beadle."

So he goes to the beadle and the beadle looks in his book and says, "They always have it six weeks from yesterday. They'll send you a notice." Now the beadle is the janitor and of course he knows everything. Do you see? The janitor is the administrator!

Now take admissions. Of course, these are places where students come to. And their professors are great names. People don't go to get a degree, they go to study with Professor so-and-so. So how is a class chosen? You talk with Professor so-and-so and he says, "Yes, come and I'll teach you," or "No I don't want you." And then if he's a kindly man he says, "I don't want to teach you but look, I've talked to you. Why don't you go down to Marburg? You're just the kind of student that so-and-so likes."

The idea, quite evidently, is to deinstitutionalize education. This is done by making teachers freely accessible, and studying with them uncomplicated. The aim is *to* restore, in whatever ways are possible, the practical circumstances of an educational community. Reduction of the formal apparatus of education moves toward the ideal put by Lewis Mumford in *The Transformations of Man:*

Paideia is education looked upon as a life-long transformation of the human personality, in which every aspect of life : plays a part. Unlike education in the traditional sense, paideia does not limit itself to the conscious learning processes, or to inducting the young into the social-heritage of the community. Paideia is rather the task of giving form to the act of living itself: treating every occasion of life as a means of self-fabrication, and as part of a larger process of converting facts into values, processes into purposes, hopes and plans into consummation and realizations. Paideia is not merely a learning: it is a making and shaping; and man himself is the work of art that paideia seeks to form.

In the educational community of paideia, everybody is an educator, everybody teaches, and thinks of himself as a teacher. Teaching is not a special role to be adopted as a profession, but a natural function of all human beings. We are a long way from this ideal, but, having adopted it, the authors of *Proposal for a New College* look for examples of halfway houses halfway between what we have or do now and an educational community. This means schools or places created by people who cherish the ideal and invent ways to practice it in spite of limiting surroundings. Half a dozen such semi-utopian places are One is the Bauhaus, described in Proposal. another, Black Mountain College. These two "experiments" didn't last very long. The Nazis forced the Bauhaus, begun in 1919, to close in 1933. Black Mountain was begun in 1933 in North Carolina, and suffered spontaneous disintegration in 1956. Survival to respectable old age, however, when people attempt the kind of education that was successful for a time at the Bauhaus and Black Mountain, is not a criterion of its worth. Telling about the Bauhaus, its founder, Walter Gropius, wrote:

The interesting thing was that the student in the stimulating atmosphere of the Bauhaus produced above his average because he was so stimulated by the common effort. . . . Today you will find that even in the progressive universities like Harvard University, there is an iron curtain of secrecy between the faculties and the students and that is why everywhere you see riots today [1969]. In the Banhaus right from the beginning, I took two student representatives into all our council meetings and there were wild arguments all the time, but we never had any riots because they took part in the responsibility: they were made guilty for what we did, so to speak, and they felt a part of it. Basically this is the democratic process. The vounger man is always closer to the future than the older man, so the older man should listen to him; and in my opinion it's a necessity that in the universities a new way should be found at least to give the student an advisory capacity in the faculty meetings. In the Bauhaus the whole thing was less a school than a laboratory. The teachers were as much stimulated by the students as vice versa. There was no boss system. This is how it should be in our schools today, but it isn't yet.

It should be added that the students of the Bauhaus were in all probability the cream of their generation—people who wanted and were determined to learn—while the teachers were among the most distinguished artists of the time. Practice of the arts, the Bauhaus showed, produces the field for absorption of general education.

A crisis came about at Black Mountain where some of the Bauhaus teachers had migrated—when suddenly the chief building it occupied during the school year was no longer available. Supporters gave them some land nearby, but no building. As John Evarts says in *Form* No. 6, recalling his days as a teacher there, "Students and faculty would have to make a gigantic effort to keep the place going." They acquired an architect for the staff and he designed a general studies building that could be put up with inexperienced help. They organized teams to do various jobs. Philosophy professors and psychologists mixed and hauled cement along with the students, and slowly the structure took shape.

The pace of life at B M C quickened immeasurably that year [1941]. The pulses and mind quickened as well. In most cases academic work did not suffer, and in many, it may have been livelier and more intense. The more expert workers among the students often spent five afternoons of the week at the jobs, but usually they also fulfilled the demands of their regular studies very well....

The fact that the work was an actual necessity in order "to save the college" brought meaning and urgency to the tasks. And the tasks were not fictional or merely invented to give young people practical experience. The educational experience involved in taking initiative and responsibility in the work programme was integrated in the total process. It was a case of genuinely facing reality and involved more than winning a football game.

Why did both students and faculty *care* so much about their college? Because of what they and their teachers had made it. There were a number of extraordinary teachers at Black Mountain, drawn there by John Andrew Rice, who had left Rollins College in Florida, saying, "I don't belong in institutions." Black Mountain, while it lasted, was probably less of an "institution" than any other school in the country. We have space for only a brief account of what Rice was like:

He was alternately an amiable, provocative Socrates, and a diabolical rebel and critic. He was deeply kind and understanding, his vision was broad, his knowledge deep. He was a wonderful talker and story-teller. Born in the South and always an educator, he had also been a Rhodes scholar at Oxford. He would start off with a word or a concept which most people thought they understood perfectly—a word like "sentimental" or "democratic" or "aristocratic" or "love" or "honor." And the discussions on a single concept might continue for two weeks or more—the digressions were enormous; he would confuse the class, showing some of them all too clearly that they didn't say what they meant and didn't mean what they said. He was more than adroit in getting people to speak and in engendering scepticism and caution—he stretched people's minds and made them think.

The story of why John Rice couldn't teach at Rollins College—and why Black Mountain couldn't survive—is well told by Martin Duberman in *Black Mountain* (Anchor, 1973). *Form*, from which we have been quoting, is (was?) a quarterly magazine of the arts published at 8 Duck End, Girton, Cambridge, England, founded in 1966. The three-part series on Black Mountain began in *Form* No. 4 (April, 1967) and continued through No. 6 (December).

FRONTIERS Some Pioneers

RAIN for October presents long extracts from Ken Bossong's "20-page compilation that gives a sense of the rapid local progress in energy occurring around the country." It describes the alternate energy plans of states, counties, and towns, and concludes: "Ultimately, the success of national efforts to pull the U. S. out of its energy crisis will be determined within the communities across the country and not in Washington, D. C. " Some sample paragraphs:

Public buildings powered by solar energy are in the works all over New Mexico. And one of the major builders is state government—mandated by the 1975 legislature to consider alternative energy systems for all state construction. The state has already financed two solar buildings at New Mexico State University and expects shortly to solarize several other major complexes now under construction.

In California, the state Office of Appropriate Technology is providing bicycles to state workers in Sacramento as an alternative to automobiles, training unemployed persons to design, build and install solar hot water systems in state-owned houses and apartment buildings, and assisting in the design of new waste buildings that use only one-fourth the energy of conventional buildings.

The long-range goals of these and other state energy planning programs are often quite ambitious. The New York State Assembly, for example, has endorsed an energy policy goal of meeting 50% of its energy needs from solar energy, wind power and solid wastes from within the state; presently New York must import 90% of its energy. South Dakota is planning to reduce its historic per capita energy growth rate of 3.85% to at least .68% by 1980 and to 0% by 1985.

A study has been completed in Montana on how to make the state energy self-sufficient. That report follows the thinking of Amory tovins (i. e. reliance on conservation and decentralized, alternative energy technologies) and is probably the first serious effort in any state to explore energy independence through "soft technologies." A spate of bills to implement the report s anticipated recommendations is now being readied for the Montana legislature. One would need on-the-spot evaluations to anticipate how effective these programs are likely to be, but without doubt *something* is happening all over, as the *Rain* editors proclaim.

What began this wave of change? The environmental, back-to-the-land, ecological, new economics, intermediate technology, and organic gardening movement-these broad tendencies can hardly be separated—has had its great and influential pioneers. Rachel Carson (Silent Spring) had a large part in it. At another level Michael Polanyi and A. H. Maslow introduced lines of thinking which caused many minds to move in a new direction. Another trio of pioneers would be Lewis Mumford, Buckminster Fuller, and Aldo Leopold, quite different in some respects, yet alike in their work as stirrers and emancipators of minds.

Two intermediate figures would be J. I. Rodale of organic gardening fame (who made Sir Albert Howard a great prophet of our time) and Ralph Nader, who demonstrated what one aroused and intelligent person can do through the courts and the media.

Then, in chronological order of influence, come individuals like Barry Commoner, E. F. Schumacher (most influential of all), and Wendell Berry (whose quiet effect on a growing number of readers touches depths of character others may miss). Howard Odum's Energy Economics shook up and freed the thinking of a lot of people, some with access to policy-making, and then we heard from Amory Lovins, a physicist who touches all the bases in an argument for "soft technology" so articulate that the issues it represents can hardly be mentioned without quoting him. These people are all mind-changers, but they have this effect not by cunning persuasion but with careful assemblage and interpretation of long-neglected facts.

Berry, for example, who believes that the right sort of husbandry of the land would grow balanced human beings as well as nourishing crops, writes in *Organic Gardening* for July on what is involved in setting out to be a farmer.

"Nothing would please me better," he says, "than to see 'agri-business' replaced by an agricultural system of settled farm communities, responsible farmers, and small farms." But this will require "a profound cultural change." By listing the presentday difficulties in the way of small-scale farming, he indicates the character of this change. Becoming equal to these difficulties would itself be a large part of the change. Among them are the excessively high cost of land, the years it takes to *learn how* to be a good farmer, the hard work with no quitting time, and, finally, the hazard of relating one's life to both the predictables and the unpredictables in nature. Farming has its rewards, but it is no sure thing.

John Todd has added the science of a biologist to systematic planning for self-sufficiency on the land, on the scale of individual and smallcommunity needs. The New Alchemists' Ark on Prince Edward Island in the gulf of the St. Lawrence River is there for everyone to see, and it works.

What are the three most important practical areas needing change? Obviously, energy production, technology, and food supply. They are closely related—interdependent, actually—and crucial to any human future. We have named the most effective champions of change in energy production and economics—Lovins and To be added is Frances Moore Schumacher. Lappé (author of *Diet for a Small Planet*), who has both the knowledge about food and the capacity to put her understanding in terms a very large audience can grasp and appreciate. Again it is the October Rain which presents material by Lappé and Joseph Frances Collins, her collaborator in a new magazine (Food Monitorpublished in San Francisco, 11 issues a year for \$15), giving an idea of the contents of their new book, Food First. Telling about their research, Frances Lappé says:

As we studied, read and interviewed, we found that the media-repeated themes of scarcity, guilt and fear are all based on myths. In fact, we had to learn that: 1. Every country in the world has the capacity to feed itself.

2. The hungry are *not* our enemies nor our competitors.

3. The malnourished abroad are not hungry because of individual greed of the average American. Rather, the hungry are victims of a scarcity-creating system.

Hunger, in fact, is not the "problem" at all. Hunger is the symptom of a disease, and we are its victims in much the same way as are the nomads in Mali or peasants in India. We have come to see that no society setting out to put food first can maintain the concentration of wealth and power that characterizes most nations today.

These discoveries are spelled out in *Food First* and in *Food Monitor*—2588 Mission, San Francisco, Calif. 94110. Meanwhile *Rain*, which keeps us up with these and other matters, comes out ten times a year—single copies \$1—2270 N. W. Irving, Portland, Ore. 97210.