

## THE COSTS OF RESTORATION

MAN, Buckminster Fuller said somewhere in his voluminous writings, is the only anti-entropic force in the universe. What did he mean? He meant that man is a "creative" being, the only one that we have experience of. He meant that man everywhere leaves the imprint of deliberation and design on his surroundings. He is an artificer, a shaper, a builder. He meant that although, according to the second law of thermodynamics, the universe is running down—gradually being reduced to purposeless, random motion—man has the power to restore direction to aimless energies and organize them with some end in view. It is a godlike function, and we are able to perform it.

On the other hand, it seems evident that we are not performing it very well. In *Creating Alternative Futures*, a book written to identify what seem the most constructive patterns of social creation, Hazel Henderson coins the expression *The Entropy State* to characterize the collective social effect of present human action toward disorder and failure. What have been regarded as our best-laid plans are now in a cycle of diminishing returns. One dramatic failure, both symbolic and practical, was reported recently in a dispatch from Washington, D.C., in the *Los Angeles Times* (March 16). The books in the Library of Congress—and everywhere else are falling apart. The paper isn't much good. It doesn't last the way the handmade paper of more than a century ago, which is still in fine condition, has lasted.

According to the man in charge of preserving the books in the Library of Congress, "It's a terrible situation. The last century has been a real disaster." The *Times* story gives details:

The Library of Congress estimates that as much as a third of its collection of 17 million books, historical documents, maps, photos and other items are so badly deteriorated that they would be

"irreparably damaged" if they were handled by the public.

There are a number of factors that contribute to the deterioration of books. Temperature, humidity, air filtration, exposure to light, insects, air pollution, poor bindings and—most important—paper quality all play a part.

Most of these factors sound like normal ills to which all books are heir, but the point is that books produced over a century ago can still be handled and read. Only the later ones are disintegrating:

Early books were printed on fine handmade paper made from cotton and linen rags, and on parchment made from animal skins. But as printing and papermaking became more commercial, papermakers in the 1850s began using wood pulp instead of rags and printers added chemicals to make the papers absorb ink more readily.

The result is that most paper used for books and documents in the past century has an acid content that reduces the life span of the paper.

There is of course an elaborate technical remedy for brittleness—one costing between two and three hundred dollars a book. Other "fixes" include encasing each page in a clear plastic envelope, and soaking the pages in special solutions. The most heroic of the measures is being attempted, appropriately, at a plant at Valley Forge, where scientific technicians are "gassing" books by a diethyl zinc process which removes the acid.

All this is very expensive—helping to swell the Gross National Product, one supposes. A librarian of the University of California in Santa Barbara commented:

Our era has the potential of becoming a great intellectual wasteland unless we find some better way to preserve these books and papers. It's frightening when you think about it, but some of the greatest records of American creativity and discovery are

printed in a very perishable medium. . . . It's getting worse because the economics of publishing are driving publishers to use even worse kinds of paper. We've been trying for 15 or 20 years to encourage them to change, but the result hasn't been too successful.

The publishers reply that, except for art books, there is hardly any demand from either readers or authors for books printed on lasting paper. Why, they ask in effect, should we lose money trying to serve an ideal about which nobody cares?

Well, we've heard this argument before, from practically every entrepreneur who depends on selling the mass market. They all trade *down*, because the volume of sales they need in order to survive requires it. Meanwhile, the production of well-made, lasting books is now limited to supplying items for the hobbies of rich collectors.

How many kinds of evidence—and how much of it—do we need to be convinced that we are living in a state of rapidly increasing entropy? What with food shortages, ever higher prices, the fuel famine, the cost of land and building homes, the cost of getting sick, and even of dying, the spread of addiction, the toll of alcoholism among teenagers, the armaments race, the spread of terrorism, the confessed failure of elementary and high school education, the confused and mixed-up condition of art, the impoverishment of literature, the corruption of politics, the congestion in the streets, the degradation of cities, the omnipresent pollution and the decline of rural America . . . why do we go on "making studies" and gathering data?

There is so much evidence before us now that a cultural diagnostician would be wholly justified in declaring that modern civilization is animated by a Freudian death-wish. The best that any of the experts have to offer is some ingenious way of "buying time." The real solutions are ignored. We know, of course, how to make paper that won't rot, but this isn't practical—not if we want to continue to produce thousands each of 36,000 books a year. All the real solutions are regarded

as "token" remedies which would work only in utopian fantasies. Organic gardening? It won't feed the whole world, or even a small part of it. We need petroleum-fueled agriculture and petroleum-derived fertilizers and pesticides to grow food for the billions. If petroleum is running out and prices are going up, we can't help things like that. Anyhow, we've got enough for now. And if we don't let businessmen make a profit the whole system will fail.

Listing all the contradictions of our civilization which, when added up, disclose an underlying death-wish, would take too much space, and only the blind now deny the evidence of which we have given a sample or two. But one small item seems loaded with the same sort of symbolism that is embodied in rotting books. The following question-and-answer appeared in the *Seattle Times* for Feb. 5:

*Q.* Is it true that a certain kind of rhythm in some rock music can sap a person's strength?

*A.* The beat that beats, according to new findings, is a stopped anapestic rhythm (short, short, long, pause) which is the exact opposite of the heart and arterial rhythm. Of hundreds of persons tested on an electronic strain gauge, 90 per cent registered an instant loss of two thirds of their normal muscle strength when they heard the beat. The music of the Rolling Stones, the Doors, the Band, Janis Joplin all feature a lot of stopped anapestics.

Why don't we recognize more of such signs (they might be revelations) and take serious note of them? Because, as Gregory Bateson says, we don't know how to look at wholes. We see only parts, and very limited parts at that. We try manfully, for example, to make the market system go on working. Widows, orphans, and prosperity depend upon it. But it keeps breaking down, and we try to fix it up a little here and there. *Nobody* wants socialism, we say, as though it had been proved that earlier communitarian societies were all mini-totalitarian states!

The philosophers, artists, and poets of the past—the great ones, that is—all saw the Entropic State coming. Heine saw it, Tolstoy saw it, and

Ortega saw it a generation ago. Why are these prophets, so perceptive in so many ways, whose predictions so often come true, so consistently ignored? Well, they don't even exist for the movers and shakers of our world. The men of action don't read philosophers and poets. And if someone calls such predictions to their attention, they say it's just literary speculation, not hard fact. Meanwhile the visions—the dark ones—of the philosophers, artists, and poets keep coming down from the realms of the imagination and turning into hard and hard-to-bear facts before our eyes, and *still* the men in power listen only to one another. Example: The A.M.A. announced recently that it has not been scientifically proved that diet has anything to do with disease. The junk foods will go on and on, and this, the manufacturers claim, will save the economy, while school superintendents explain that selling junk foods to children will save the football field.

There is another way of seeing all these things, best represented, perhaps, in the reflections and generalizations of essayists. Joyce Carol Oates said in the *Saturday Review* (Nov. 4, 1972):

What appears to be a breaking-down of civilization may well be simply the breaking-up of old forms by life itself (not an eruption of madness or self-destruction), a process that is entirely natural and inevitable. Perhaps we are in the tumultuous but exciting close of a centuries-old kind of consciousness—a few of us like theologians of the medieval church encountering the unstoppable energy of the Renaissance. What we must avoid is the paranoia of history's "true believers," who have always misinterpreted a natural, evolutionary transformation of consciousness as being the violent conclusion of all history.

This may be philosophically consoling to thoughtful individuals, but to the practical man of commerce and state, it has no meaning at all. His sense of destiny is completely entangled in the processes of the status quo. His *life*, he believes, depends upon them. And now they seem to be failing. Nor are all artists able to see through the miasma of depression hanging over contemporary life. In "serious" literature today there are no

heroes—only "anti-heroes" like Camus' Stranger. An upward-and-onward novel is unbelievable by modern sophisticates, and who, after all, feels able to write one, these days?

Yet Miss Oates finds a way to make a reverse reading of present doom-saying:

. . . it is possible to overlook how the collective voices of many of our best poets and writers serve to dramatize and exorcize current American nightmares. Though some of our most brilliant creative artists are obsessed with disintegration and with the isolated ego, it is clear by now that they are all, with varying degrees of terror, saying the same thing—that we are helpless, unconnected with any social or cultural unit, unable to direct the flow of history, that we cannot effectively communicate. The effect is almost that of a single voice, as if a communal psychoanalytic process were taking place. But there does come a time when he realizes, perhaps against his will, that his voice is one of many, his fiction one of many fictions, and that all serious fictions are half-conscious dramatizations of what is going on in the world.

There they are, dramatizing the universally felt reality of the Entropic condition, but they do go on living, many of them quite comfortably. Their writing is no more than rhetorical efflorescence of the weakening side of life, and the time is almost upon us when, if they don't want to *really* die, they must saturate themselves with the other side of human reality: the anti-entropic potential. Actually, Miss Oates is putting in psycho-moral terms the same fundamental propositions that Eugene S. Swartz affirmed in his book, *Overskill* (Ballantine, 1972). He listed the self-condemning effects now evident in thought and action:

1. The technological process is undermining the premise of science that it is an independent enterprise that is free to discover the truths of the universe.
2. The technological process is undermining and destroying man's creative forces, which are the mainspring of science and technology.
3. The increasing complexity of techno-social problems in a finite and closed system tends to negate a "best" solution.

4. The efforts to control technology through prediction planning and assessment will hasten the decay of creative forces and increase human alienation without helping to solve the crisis of science and technology.

5. The organizational structure and institutions of science and technology impose constraints on their further development.

6. Technological civilization becomes counter-productive—wealth becomes anti-wealth, and technology becomes a victim of its own development.

7. The destruction of the creative forces generates a counter-revolution to stave off mastery of the machine over man.

A sizeable book could be written (or has already been) to document and support each of these propositions. Here we are interested only in the last. A twofold flow of recreative energy is already under way. It is fed, first, by those who have never been taken in by the acquisitive, self-serving doctrines of the age, and are at last obtaining a belated hearing; and, second, by a new and stronger chorus (stronger only because more numerous) of those who have recognized that nature herself has declared war on what we are doing.

Well, if we say things like this—and a great many people are saying them, these days—the skeptical stand-patters are likely to argue that such claims are no more than would-be intuitions supported by flimsy metaphysical structures. Are we, they will ask, expected to risk our fortunes and our lives—they don't say anything about their sacred honor—on mere guesswork?

The answer is that we've been doing just that for all our lives. Our "certainties" are no more than dressed-up speculations based on quite narrow assumptions. The scientific verities on which we set great store are abstractions which "work," but they have little or nothing to do with "truth" in the human sense. All our hopes, our longings, our conceptions of good and our feelings about human destiny reach far beyond the empirically verifiable. Scientific knowledge is a single wedge cut out of the pie of totality—a

collection of demonstrable abstractions which work the way gunpowder or dynamite or bicycles and sewing machines work, but which tell us nothing about the meanings of things. We make up our meanings to start with, and then make logical systems out of the facts that happen to fit with what we are trying to do.

Science, as Thomas Kuhn has demonstrated, is very largely the going consensus of scientists—a matter of the prevailing paradigm. Behind it are the big intuitions of geniuses like Newton and Einstein and the supporting calculations of some skillful scientific bookkeepers and other rationalizers. It is not and never was Gospel Truth. Basically, science is an elaborate how-to manual, not a scripture concerned with the world and its meaning. Yet we are always getting the two confused. During the Middle Ages the learned called Aristotle, who founded modern science, the "Master of those who know," but then they converted his doctrines into theology. Nor does Aristotle, sage as he was in some respects, make a good model for those who insist on scientific certainty before they act. As Frederick Lange says in his *History of Materialism*:

Aristotle everywhere attaches himself to tradition, to popular opinion, to the conceptions contained in the language; and his ethical demands keep as near as possible to the ordinary customs and laws of Hellenic communities. He has therefore always been the favorite philosopher of conservative schools and tendencies.

Of his method, Lange says:

. . . we speedily discover that his proceeding from facts, and his inductive mounting from facts to principles, has remained a mere theory, scarcely anywhere put into practice by Aristotle himself. At the most, what he does is to adduce a few isolated facts, and immediately spring from those to the most universal principles, to which he thenceforward dogmatically adheres in purely deductive treatment.

When it comes to controversy:

Aristotle himself introduces the opponents, makes them expound their opinions—often

inaccurately enough—disputes with them on paper, and sits as judge in his own cause. So victory in discussion takes the place of proof the contest of opinions the place of analysis, and the whole remains a purely subjective treatment, out of which no true science can be developed.

In short, the subjective element in science is as large and important as the subjective element in all other human deliberations and conclusions. The present, in other words, is a time of restoration for Man Thinking. The break-up of the world based on technological assumptions is at last making room for a world based on human assumptions. It is no coincidence that the conception of the peak experience and the discipline of self-actualization have become current just as the mechanistic style of life is failing on every front. The breakdown is not only death but also rebirth and transformation. Joyce Carol Oates asks:

What will the next phase of human experience be? A simple evolution into a higher kind of humanism, perhaps a kind of intelligent pantheism, in which all substance in the universe (including the substance fortunate enough to perceive it) is there by equal right. . . .

Far from being locked inside our own skins, inside the "dungeons" of ourselves, we are now able to recognize that our minds belong, quite naturally, to a collective "mind," a mind in which we share everything that is mental, most obviously language itself, and that the old boundary of the skin is no boundary at all but a membrane connecting the inner and outer experiences of existence. . . . This has always been a mystical vision, but more and more in our own time it is becoming rational truth. . . .

It is the lifelong accumulative statement of Abraham Maslow. . . . It is the unique, fascinating voice of Buckminster Fuller, who believes that "human minds and brains may be essential in the total design" of the universe. And it is the abrasive argument of R. D. Laing, the Freudian/post-Freudian mystic, who has denied the medical and legal distinctions between "normal" and "abnormal" and has set out not only to experience but to articulate a metaphysical "illumination" whereby self and others become joined. All these are men of genius, whose training has been rigorously scientific. That they are expressing views once considered the exclusive

property of mystics proves the old dichotomy of Reason/ Intuition has vanished or is vanishing.

These are accounts on the other side of the ledger, deposited to the credit of man as designer and creator—as first imaginer and then constructor of what may be.

## REVIEW

### PAUL GOODMAN—INCISIVE GADFLY

TWO things about the work of Paul Goodman make him worth careful reading. One is, on occasion, the depth of what he has to say. The other is the engaging, stumblingly original way he says it, often incorporating the vernacular in serious discourse, giving the one dignity, the other spice and bite. His most valuable contribution may turn out to be the renewal of humanist understanding of how works of the mind—literature—should be regarded.

*Creator Spirit Come* (Free Life Editions, \$11.95) is the third volume of his posthumously published works to have attention here (the other two are *Nature Heals*, his psychological essays, and *Drawing the Line*, presenting his social thinking). These three volumes were compiled by Taylor Stoehr, who apparently knew what to do with the writing of a man like Goodman. He edited with respect for Goodman's purposes, saying, "this edition is meant for use, not for the record," and explaining that he chose the strongest version of Goodman's work, when more than one existed, not "the last text corrected by the author."

In *Creator Spirit Come*—a phrase often used by Goodman—one essay is devoted to the interpretation of literary texts. Here Goodman cites the rule of a scholar that one must not neglect the plain meaning of what is said while looking for hidden significance; he allows the point, but then says:

Nevertheless, the professor's wise maxim cannot stand as a general rule of interpretation, for it misunderstands the nature of language. In all critical and historical studies there is a kind of regulative principle, namely, that those people made sense to us, they share our common humanity. And it must have been with them, as it is with us, that very often the meaning of a man and his situation is not expressed in speech and even less so in writing. Sometimes it is irrelevant to speak, sometimes one cannot or dare not speak. Sometimes the mere act of speaking is a lie. Sometimes speech is a systematic avoidance of meaning, and sometimes one must speak indirectly.

Sometimes speech is the beginning of conveying meaning, but the essential meaning occurs in some other action than speech. All these are commonplaces of ordinary experience, and a critic, coming afterward and looking for the historical, philosophical, or poetic essence of a situation, must bear them in mind as likely possibilities. Scholars tend to suffer from a fetishism of texts. To them it is the most obvious thing in the world that the truth and reality of men are conveyed in books. But if we go back to the origins of our Western academy in the Pythagoreans or Socrates, we seem to be told that this is neither possible nor desirable. In the tradition of Lao-tse even vocal speech is suspect.

How, in literature, what *should be* is distilled out of what *is*—by the magic of a human being who has educated his feelings through observation is the subject of the concluding passage of this essay:

We are here touching on one of the most puzzling, never finally resolvable, problems of the human condition, the relation of knowledge and ethics. There is no doubt that the thinking of prophets, scientists, and artists has been powerfully normative for behavior. Nevertheless it is a fair challenge to ask how any proposition about reality can possibly be normative; how can we get from "is" to "ought"? Modern logicians tend to deny the possibility and to hold that ethical sentences are ultimately, not propositions but commands or expressions of feeling. There is a pathos in this positivism, for these philosophers are dedicated to natural science, yet their logic makes it unthinkable to develop a naturalistic ethics. Then the search for truth and the searchers for truth are at the moral mercy of any kind of venality fanaticism, bullying, or caprice.

Why, one wonders, call such people "philosophers"? They cannot be lovers of truth since they bar its possibility. And what if the "normative"—what is good, right, true, and the thing we must do—is actually the very essence of human reality? What if movement toward the Good is the stuff of which we are actually made, and at the core of all human things?

Then shutting it out (which can't really be done) is abdication from humanity. There is the Grand Inquisitor's way of shutting it out, the

scientific mechanist's, and the technical scholar's, and none of them really works. The impudence of attempting it invites the nihilism of total revolution.

Goodman, however, argues more pleasantly:

But the case is less desperate if, as we have been urging, there is always a complex relationship between act and truth between speaker and speech. Logical validity depends on what we take sentences to be, how much is to be included in the meaning of a sentence. For instance, the statements of scientists are behaviors of a character of men, and that character has very often been, we know historically, normative in the most crucial matters, hostile to superstition, humble and loving toward nature, and frank to publish for the consensus of all observers. Whether or not we can logically ground ethical sentences depends on how complexly and humanly we take our primitive propositions, how much of the speaker and his behavior we want to include in our meaning. Further, it is certainly false that feelings and emotions have no cognitive value; they are structures of the relation of the organism and environment, and they give *motivating information* (how else would the animal survive?). And even more, by the working up of feelings and emotions into articulate literary speech—which is a storehouse of perceptions and memories, nicely discriminating and structured from beginning to end, and, not least, embodying the social wisdom of the vernacular—we are given ethical premises grounded in the nature of things. Indeed, if we consider the human sciences, we may say that the concrete "complex words" of stories, plays, and eloquence are more adequate observations and hypotheses of reality than any formulae and samplings of psychologists and sociologists; but besides, they are exemplary and moving. In brief, students of poetry, history, philosophy, and natural philosophy, do not *in fact* find the gap so unbridgeable between "what is the case?" and "what ought we to do?"

Today the physical sciences may be added to the human sciences (in their literary expression), for after reading the Smithsonian volume, *The Nature of Scientific Discovery*, the British astronomer, Bernard Lovell, asked:

Are physics and astronomy returning us to a belief in the partnership of the mind of man in the foundation of the universe? It is a question asked and debated in this volume.

Where lies the foundation of ethics? Is ethics created by man for the sake of survival, or is there a fundamental ethic in our existence in the universe? . . . One ends this volume with these questions uppermost and with a feeling of entreaty and hope that man will survive so that the genius of a future Copernicus can penetrate the heart of darkness. (*Science*, March 29, 1976.)

There is a sense in which Paul Goodman was like Simone Weil. Both were determined to apply their thinking in the part they played in the world. This is evident from Simone Petrement's biography of Simone Weil, and it is equally plain from Goodman's book, *The Society I Live in Is Mine*. As for social planning and arrangements, in *The Need for Roots*, Simone Weil had some wonderfully bizarre proposals to improve the moral life. For example, she thought a court to try scholars for misrepresentation of historical truth would be a good thing. Goodman, in turn, after showing how the mass media filter out the originality and dull the cutting edge of works of art, calls "such an atmosphere of uniform thought and feeling, and potential brainwashing" a cultural crisis making it "impossible to carry on a free, rather than a mass democracy." For a possible solution he proposes:

Therefore, to meet this constitutional and cultural crisis let us look for a new principle in the structure of the danger itself, and let us suggest that *it is the responsibility of the mass media themselves to support, freed from their own direction, a countervailing force of independent and dissenting media of all kinds*. Since it is mainly the size of the common-denominator audience that constitutes the peril, conceive of a graduated tax on audience size—of the broadcasting stations and networks, big newspapers and chains, national magazines, Hollywood, the publishing combinations—to *create a fund earmarked exclusively for the support of countervailing small media*: local newspapers, little theatres and magazines, unaffiliated broadcasters. The tax would be collected by local, state, or federal government as relevant; we shall discuss the administration of the fund below. The constitutional virtue of this proposal is that it provides for the danger of brainwashing to generate its own antidote. Moreover, it is altogether in the spirit of the American principle of built-in checks and balances,

applied to technical and economic conditions where free competition cannot work, where, indeed, there is a semi-monopolistic private government paralleling or interlocked with public government.

While not likely to be applied, such measures are at least conceivable. They would amount to candid recognition that an Establishment needs to learn to be suspicious of itself and to provide its own checks and balances. An arrogant establishment is the first big step toward authoritarian rule. While, for us, a self-critical establishment may seem almost unimaginable, there have been a few examples in history. The Danish educational establishment, for one, realized that it needed critical contrast with an independent mode of education and supplied the Danish Folk-school movement with funds to set up its adult education program for rural youth.

Even if establishments are not necessary, they seem to be inevitable. They are like the dead wood of a tree. They just stand there, having stopped growing, but through their dependable inaction they maintain stable structure and provide ample surfaces for the cambium layer in which active life and growth carry on. An establishment which recognizes its own limits and need for fertilization by many sorts of deviations will at least not die of bureaucratic malnutrition. These are the services of the artistic and literary community to the established order, and they are essential to its vigor and continuity. Goodman understood this, and he also understood the large responsibilities of the artist.

## *COMMENTARY*

### THE MAN-MADE ENVIRONMENT

AN item in the *Saturday Review* for May 15 describes the research which led to the report on the effect of one kind of rock music (see page 2). Dr. John Diamond, formerly of New York's Mount Sinai Hospital, noticed the debilitation in himself:

He first experienced rock's weakening effect, he says, while standing in a record shop that was reverberating with driving, pounding rock sounds. His later researches on the subject involved close analysis of about 20,000 rock, pop, and classical recordings. Although the study showed that Bob Dylan and the Beatles are harmless to the human frame, Diamond found that you can be made weak as a kitten by many Rolling Stone numbers—and by some non-rock numbers as well, like Stravinsky's "The Rite of Spring" and Ravel's "La Valse"!

If Dr. Diamond's conclusions are correct—and there seems no reason to doubt them—we may ourselves conclude that if music critics fail to sense the anti-life quality in some musical forms, eventually the physiologists will report its impact at a grosser level. Serious environmentalists have their work cut out for them! The sounds we hear may be as much of a threat as the air we breathe or the water we drink.

The effects of rhythm or vibration reach us by eye as well as by ear. In the June *Mother Jones* John Rothchild reports at length on the findings of John N. Ott, a specialist in slow-motion photography who noticed the effects on both animals and human beings of artificially produced colored light (see his Pocket Book, *Health and Light*). A radio station developed personnel problems after switching from white to deep pink fluorescent light (to brighten the studio surroundings). Everyone became irritable and began making mistakes. Restoring white light ended the trouble. Experiments on an Illinois mink farm showed a similar effect on animals. Daylight through deep pink glass made the minks "increasingly aggressive, difficult to manage, and in many instances actually vicious." Changing the

glass color to blue transformed the animals into friendly and docile creatures in thirty days. Mr. Ott's account of the effect on human beings of wearing colored sun glasses opens up a large area for environmental research.

## CHILDREN ... and Ourselves PAIDEIA TODAY

WE often speak here of *Paideia*, the Greek name for the total educational community. It means a community in which every one is a teacher, thinks of the teaching activity as basic in human life, and does whatever he does with this idea in mind. The young, in such a community, learn wherever they go. It is a way of community life which reduces to a minimum the need for institutions. So, *Paideia*, as a word, is the symbol for an educational ideal. Its modern usage for this purpose probably dates from publication of Werner Jaeger's two-volume study of ancient Greek life and culture, titled *Paideia*. In a few words Jaeger sums up the spirit of the Greek community:

It is a mark of the close connection between the productive artistic and intellectual life and the community that the greatest Greeks always felt they were its servants. This attitude is well known in the East also: it seems to be the most natural in a state where life is organized by quasi-religious rules. Yet the great men of Greece came forward not to utter the word of God, but to teach the people what they themselves knew, and to give shape to their ideals.

Paul Goodman put it somewhat differently:

There is a line of critics from Lao tse to Socrates to Carl Rogers who assert there is no such thing as teaching of either science or virtue; and there is strong empirical evidence that schooling has little effect on either vocational ability or citizenship. . . . in all societies, both primitive and highly civilized, until quite recently most education of most children has occurred incidentally. Adults do their work and other social tasks; children are not excluded, are paid attention to, and learn to be included. The children are not "taught." . . . In Greek *paideia*, the entire framework of institutions, the polls, was thought of as importantly an educator.

Can there be *paideia* today, when children have to be herded in sightseeing groups simply to have a brief encounter with the work of the world, when they almost never see their parents during

working hours, and when street play or suburban fun and games make up most of their "incidental" education?

Gandhi was speaking of *paideia* in his plan for Basic Education when he stressed the local economics of the region where the children live as vehicles of learning. But this becomes impractical in industrialized countries where productive activity is organized around the devices of high technology. Athens and Florence were natural examples of *paideia*, but what community today can offer such arrangements?

Well, it can be done. *Paedeia* can be brought into existence wherever its spirit has animating strength. Andrew Jamison, who teaches at the University of Copenhagen, begins an article in the January/February *Environment* by saying:

Until General Electric or Saab build one that's bigger, the world's largest windmill stands, for the moment, at the entrance to the campus of the three schools that make up the little community of Tvind on the Danish West Coast. Built largely by untrained volunteers, the Tvind power-plant has become something of a symbol in Scandinavia, not just for the viability of wind-power, but for a new way for people—"non-experts"—to become involved with technological change. The development of "natural" renewable energy sources has become a kind of social movement in Denmark, striking a responsive chord in a country beset by economic difficulties and looking to assert its national "independence."

The story of how a windmill became associated with education is a bit complicated. It started in 1970 with the development of a Traveling Folk High School using renovated old buses which went on far-reaching trips. Two years later, some Danish schoolteachers, impressed by the achievements of the Traveling High School, set up a four-year experimental college to train teachers, and they and the Traveling School found headquarters at Tvind (on some abandoned land). Both teachers and students went out into the world to work on farms and in factories. The students run a publishing business at Tvind, take care of the Tvind farm and the fishing fleet. Building a windmill came next:

The windmill project has been a natural outgrowth of this learning-by-doing approach to education. Partly motivated by an interest in saving the costs of oil heating and electricity for the community which now consists of some 800 people, and partly by an interest in energy as a political issue, the Tvind teachers decided, in 1974, to apply their educational methods to the problem of energy production. The building of the windmill would be an experiment that the entire Danish society could participate in. Its construction would be in the hands of volunteers working for their room and board, its technical aspects would be shared and disseminated at every stage—nothing would be patented. After every research agency that was asked had refused to provide financial support, it was financed out of the pockets of the Tvind teachers, whose salaries from the state are pooled collectively.

It should be remembered, as said at the beginning, that these "amateurs" set out to build the biggest windmill in the world, and they did it with "private" financing!

And so the adventure began. By May 1975, 300 people, shovels in hand, began to dig the giant hole in which the iron-reinforced concrete foundation and tower would be built. On the first of July the tower began to rise and, as a visiting journalist later noted, "the only common denominator the workers shared was that none of them had ever built a windmill before." In fact, they shared a commitment to a project that seemed important. Technical expertise was sought early, and was provided by engineers from Denmark's Technical College and various other institutions in Denmark and Germany. The blade-design for the fiberglass wings was devised by experts at RISØ, Denmark's atomic energy agency.

The "educational" effect seems immeasurable:

The 53-meter [174 feet] high tower was completed by the end of 1975, and, as the work moved on to the construction of the three four-and-a-half ton wings and the gear system and electric transformer that would turn the power of the wind into electricity, the message began to spread. During 1976, as the tower stood there looking like a misplaced rocket launching site, over 100,000 visitors came to Tvind. Many of them came with technical advice, many came *for* technical advice. A full-time energy office was set up in a little shack near the mill to provide assistance to others interested in renewable energy equipment. Drawings of the windmill's technical details were made available and widely

distributed. Representatives from Tvind were frequently asked to come and lecture about their experiences throughout the country.

What will the windmill do? It will produce, Mr. Jamison says, "3.6 million kilowatt-hours of electricity per year, or the equivalent of 400 tons of oil." But more important, perhaps, has been its influence as inspiration:

Nor was it just the big windmill that was built at Tvind. When a new group of houses was constructed in late 1976, students from the Traveling High School built a solar heating panel on the roof of one and set up a smaller version of the windmill in the middle of the housing complex. They also interviewed many of the Danes, primarily in Jutland, who were building windmills, solar roofs, and methane-gas systems on their own. The book they published at the Tvind press was, like most of the writings emanating from Tvind, a popular book entitled (approximately) *We Are Well Underway*, recounting the builder's experiences. . .

There is this musing comment by Mr. Jamison:

The Tvind approach does raise questions about how a social movement for alternative energy technology should carry out its activity. Experiments with solar and wind energy at some of the smaller folk high schools and at the "island-camps" held each summer are even less sophisticated than those at Tvind. But by involving people in an active way, by introducing them to the technical side of alternative energy, the "movement" does spread a certain rudimentary know-how and understanding throughout society. Perhaps most importantly, such activities demystify technology.

In fact, one could call what happens at Tvind an application in an industrialized country of Gandhi's program of Basic Education.

## FRONTIERS

### Amnesty—A Good Institution

IT would be difficult to think of an organization or institution more naturally above suspicion of partisanship or self-interest than Amnesty International. This effort to gain freedom for "prisoners of conscience" around the world was begun in 1961 by some "well-intentioned amateurs" (as described by Amnesty's present Secretary-General, Martin Ennals), and has grown to a large professional organization with an annual budget of \$2.5 million. Its activities have expanded to a general program of promoting fair trials and seeking an end to torture and all executions. Today there are branches and committees in many cities. A local group may consist of a handful of people who "adopt" and work (write a lot of letters) for the release of prisoners (jailed by reason of their nonviolent moral conviction).

Amnesty International has grown because of its immediate human appeal and its successes. Since 1961 its workers have secured the release of 10,600 persons. How do they do it? "The avalanche of mail is the biggest single headache we give to most governments," a spokesman explained. Amnesty is now big enough to adopt about 6,000 prisoners at a time, and work for their release. But there are probably hundreds of thousands, perhaps millions, who could qualify for Amnesty's help as prisoners of conscience, languishing in prisons.

In the *Progressive* for April, Christopher Hanson discusses the problems and hazards brought by Amnesty's comparative success in freeing the adopted prisoners. He points out that these achievements have won much attention from sympathetic journalists and suggests that "the organization is now falling victim to a journalistic compulsion first to overinflate and then to puncture the public reputation of a recently 'discovered' newsmaker." It is argued that Amnesty should spread its benefits more widely.

Amnesty, critics contend, focuses mainly on prisoners in Chile, South Africa, and Iran, while neglecting victims in Uganda, Cambodia, and North Korea. Mr. Hanson comments:

The assumption behind the charge is that Amnesty *could* aid political prisoners in those places if it were to redirect its energy. But Amnesty leaders claim their organization is not nearly powerful enough to provide such aid. Amnesty has been helpless in such states as Cambodia, Ethiopia and Uganda, which are xenophobic and indifferent to Western pressure, and where adopting prisoners might actually do them harm. In North Korea, the organization could not even obtain sufficient information to adopt prisoners.

Another criticism was heard in England, where Amnesty was founded and maintains the research staff that locates and selects prisoners for "adoption":

Following the Nobel Award [1977 Peace Prize], a BBC commentator asserted, "The bitter irony behind Amnesty's peace prize is that in 1977 . . . the number of prisoners of conscience has grown; the more successful Amnesty has been in pressing governments into releasing prisoners . . . the more sinister and devious governments have become in repression of dissenters."

This almost senseless comparison—as though Amnesty's efforts really increase repression—brought a terse rejoinder from an Amnesty spokesman: "It's a dangerous assertion that you shouldn't stop a man from beating his wife in the street because he'll only beat her at home."

Mr. Hanson objects to this sniping at Amnesty for the reason that the organization's only tool or "weapon" is its high reputation, which makes its efforts persuasive. Hurt that reputation and you weaken its power to persuade. A discredited Amnesty could not influence any government at all.

Another criticism has been that Amnesty is not really "international." This is accurate but virtually irrelevant:

"The overwhelming majority of our membership," laments an Amnesty spokesman, "is still in Western Europe. But the vast bulk of the

political prisoners is in the Third World." Resentments of the West, stemming from the colonial legacy and racial and ideological differences, all hurt Amnesty's effectiveness. . . . "Africans will take more notice of the informed public opinion of other Africans than that of Europeans."

Part of the problem is that there is little "informed public opinion" in most of the Third World. Amnesty recruits are usually from the educated middle class, so the pool from which new members can be drawn is much smaller in developing countries than in the West. There are also cultural and political barriers to recruitment. . . . "Many Third World Cultures are 'oral.' People aren't accustomed to writing any letters, let alone political appeals. To get them to do so requires building up a great deal of commitment."

What is the most important thing to say about all this? While good public relations experts might be able to think up some sage advice to give to Amnesty, its workers probably know better than anyone else how to shape and publicize their policies. It would save them much effort and time if there were general understanding of the origin and limits of institutional action. In the first place, practically all such remedial institutions would dissolve as unnecessary if it were not for human indifference. These institutions exist—indeed are *necessary*—to compensate for the widespread human failure to act justly and react compassionately. But when you act for others, you act under limitation. You are coping with ignorance and moral insensibility, trying to undo in particular cases evils which are almost commonplace in some parts of the world—yet often bitterly cruel, and even lethal in their effect on individuals.

It follows, then, that such institutions are inspired *substitutes* for the diminished moral tone and awareness of entire populations. They can do only so much, and usually their limitations are not their own, but built into some of the more discouraging facts of human nature.

Another—quite different—institution in New York City, the Vera Institute, which tries to salvage young people from criminal careers by

getting judges to suspend sentence on offenders willing to take jobs located for them, found that this program could help only a very small proportion of all violators:

Most women defendants are arrested on drug or prostitution charges. We are not equipped to deal effectively with drug problems and we doubted we could have an effect on women charged with prostitution who were accustomed to an income many times that of any job we might refer them to. Other changes are excluded because of our assumption that we cannot successfully work with the defendants: we do not accept gamblers, pimps, and others who make good money in the street economy because we cannot compete financially with their accustomed income. We exclude all defendants who are charged with public intoxication on the assumption that most will be alcoholics. Alcoholism, like drug addiction, is beyond our capability to treat.

In short, all institutions formed to do good are subject to adverse conditions which limit their possibilities. Most of the time, they offer not solutions but stopgaps, while their thoughtless critics expect them to do *everything* that needs to be done. They do help some people' but their most important task is to help to create the sort of society in which they won't be needed. Some institutions are doing that, too. Doing it may be the hallmark of a *good* institution.

Meanwhile, in our upside-down society, the good institutions need help. The work of Amnesty International is entirely supported by individual contribution. Being resolutely apolitical, it takes no money from governments and rarely accepts foundation grants. In practically every city there are Amnesty groups needing both volunteer helpers and gifts of money. The U.S. headquarters address (for information and publications) is Amnesty International, 2112 Broadway, Room 405, New York, N.Y. 10023. The London headquarters: International Secretariat, 10 Southhampton St., London WC2E 7HF, England.