VOLUME XXVII, NO. 23
JUNE 5, 1974

MEN AND SYSTEMS

A DRAMATIC illustration of the new life flowing into the social sciences is provided by Roy A. Rappaport's paper in the Spring 1974 *CoEvolution Quarterly*. An innkeeper turned anthropologist, Rappaport writes to challenge the idea that the "progress" of a society is measured by the amount of energy it is able to harness or control. His contention, couched in cybernetic language, is both brilliant and complicated:

> . . . thermodynamically larger systems are not necessarily better adapted nor more adaptive. Indeed, I shall argue that increases in energy flux may be maladaptive. Since it is indubitable that, until very recently, energy consumption has been rising for a very long time, this is to say that evolution may not be leading us onward and upward, but toward disaster.

This seems related to Ivan Illich's rule:

> Any social structure must disintegrate beyond some level of energy use. Beyond this critical level, education for bureaucracy must take the place of initiative within the law. . . . technocracy must prevail when mechanical power exceeds metabolic energy by a certain ratio.

And related, also, to a recent comment by Theodore Roszak:

> Work is something we want machines to do while we model white collars, initial memos, or finger paint at the university extension. . . . Machines are our slaves and the energy that feeds them is none of our concern if we can help it. *To a very large degree, the energy crisis is a work crisis in our culture. Having no joyful conception of physical labor, we fastidiously make ourselves ignorant of everything associated with it.*

These are statements or observations about the way human beings live in "advanced" societies, and concerning what they think is good or desirable. The belief that it is progressive to develop more and more energy to do our work for us is what Rappaport rejects. Letting this idea rule our decisions leads, he says, to "maladaptations." He discusses the result in terms of the feedback of cybernetic systems. Maladaptation makes feed-back ineffectual, inadequate, and sometimes misleading or false. With poor corrective feedback, the system moves toward breakdown and disaster. Effective feedback is the basis of intelligent adaptation to change and therefore essential to continuing function.

A society is a complex system made up of numerous subsystems. A machine is a system. An organism is a system. The corporation and the government are systems. A human being is a system. Rappaport discusses the subjective side of systems only indirectly, in relation to what he calls "regulative" systems such as economics, in which valuecharged conceptions such as "Free Enterprise" play a part. There are, however, other ways of relating subjective factors to these considerations.

Systems differ, and one range of differences is in degree of "coherence." By coherence Rappaport means the responsive relatedness to each other of the elements which make up the system. How tightly organized is it? Rappaport says:

> By "coherence" I refer to the extent to which a change in one system component affects changes in others; in a fully coherent system any change results in immediate and proportional changes in all components (Hall and Faga 1956). As no living system can be totally incoherent neither could it be totally coherent, for in a fully coherent system disruptions anywhere would immediately spread everywhere.

This seems a vitally important comment which is illuminated by considering it in relation to man, regarded as a system. We might call a coherent *man* a wise man who allows the intricate subsystems of his body, such as the endocrine glands, to run his organism in independent homeostasis: that is, he lets those systems alone,

having discovered by observation what sort of support they need to operate with a high degree of autonomy. He just fuels or feeds them. He is continually learning how to leave things alone, so that they work well without requiring his attention. In relation to man-made systems, Robert Hutchins' perfect administrator is a wise man whose crowning success is to work himself out of a job. He becomes free of the tasks of systems management and can turn to other things.

Well, what has happened, in this case? The wise man's "total coherence" is a subjective, not an objective reality. His wisdom is proved by relating at the right level a diversity of semi-autonomous systems which work best in comparative independence. His subjective coherence, in short, dictates various degrees of objective incoherence ("hands off") in relation to subsystems that work remarkably well by themselves—his stomach, his heart, the healing power of tissues. At another level would be the autonomous executives of an administrator's staff, who exercise freedom within the limits, according to a shared understanding, of a common objective. Here coherence is functional only at the consultative level.

This is not really a difficult way of thinking of human beings, from the "systems" point of view. Yet you won't often find this sort of analysis in discourses which have scientific pretensions. As another anthropologist, Edmund Leach, has said: "The very first basic assumption of any science is that the stuff he is studying is incapable of thinking for itself." What does this mean? It means that the scientist who follows this rule is a radical solipsist who insists that if there is any subjective coherence around, every bit of it is in *him.* For the most part, the progress of what is termed scientific knowledge has meant the successful elimination—in theory—from nature of all vestiges of subjectivity, autonomy and, in consequence, ambiguity.

But now and then a scientist finds himself led to arrange his observations of objective nature in a way that seems to make subjective (and moral or value-charged) implications inescapable. This, you could say, is Roy Rappaport's accomplishment. Fortunately, he doesn't hide it behind neutral language. So, back to his paper. Of the varying coherence in systems he says:

> Organisms are, and in their nature must be, more coherent than social systems, and social systems are more coherent than ecosystems. As a rule of thumb, the more inclusive the system and the greater the degree of relative autonomy of its subsystems the less coherent it must be. The less inclusive the system the more its internal orderliness and the effectiveness of its activities depends upon the fine coordination of its parts. An organism requires and can tolerate closer coordination of the activities of its parts than societies and societies more, at least from time to time, than ecosystems. Coordination depends upon centralization, hence progressive centralization in organisms and societies, but not ecosystems.

This is a richly suggestive paragraph. It has in it direct correspondence to most of the problems of management, education, and the quest for religious or philosophic truth. Students are part of the subsystems governed by teachers, but the educational situation is loaded with ambiguity because *some* students may turn out to be wiser than the teachers. What must you require of—put into—the table of organization to assure recognition of the student who has better coherence than the board of regents? If such an eventuality threatens to wreck the system, it was a bad system in the first place, since these things can happen. Is it possible to describe the sort of system that would have taken such splendid possibilities into account? And when would too much autonomy for the subsystems weaken the coherence of the larger order of things? In short, how many subjective unpredictables can a manmade system tolerate? There is mystery piled upon mystery here, yet now and then wise men and rare students get together to create a wonderful system of subjective consistency, and a great school—or even a high civilization—flourishes for a while. But also, sometimes a Grand Inquisitor manages to increase the coherence of the Army, the Navy, and the FBI,

and then all autonomy is frozen in the concrete of prescribed belief. An ill-natured critic might claim this to be the triumph of science, since Lévi-Strauss, still another anthropologist, has pointed out: "the ultimate goal of the human sciences is not to constitute but to dissolve man."

Rappaport considers at some length the crimes and misdemeanors of too much "coherence" (system-devised authoritarian rule) applied in the wrong places, which supervises and coarsens to eventual failure the sensitive infrastructures of numerous subsystems that once did quite well on their own. Another ill of social systems becomes endemic when a particular subsystem succeeds in controlling the larger order by its own narrow rules. We have examples of this in churches which retain advertising agencies to put "Christ's message" across to the people, and in Presidents who adopt the techniques of espionage in order to stay in power "for the good of the country." The illustration Rappaport gives is a familiar one:

> When particular individuals become identified with special purpose systems they tend to identify the special purposes of those subsystems with their own general purposes, i.e., with their own sunival, and attempt to promote those purposes to positions of predominance in the larger systems of which they are parts. As they become increasingly powerful they are increasingly able to succeed. The logical end is for a subsystem, or a cluster of subsystems, such as a group of industrial firms, financial institutions and a military establishment to come to dominate a society. This eventually is nicely summed up in the deathless phrase "What's good for General Motors is good for America." But no matter how public spirited or benign G.M. might be, this cannot in the long run be true because for a general purpose system, like the United States, to commit itself to what may be good for one of its subsystems is for it to overspecify or narrow the range of conditions under which it can survive, that is, to sacrifice evolutionary flexibility.

Shakespeare made this point a long time ago:

> O! when degree is shak'd
> Which is the ladder of all high designs,
> The enterprise is sick.

The sickness of G.M. and of lesser but still mighty colleagues in automobile production is now visible in the gradual loss of markets to the foreign car manufacturers who, in the present, at least, are making vehicles which are better for human use than the over-sized, over-powered, and over-designed Detroit monsters. Through their capacity to control buying habits—both "taste" and appetite—the American manufacturers lost all touch with common sense, meaning, in this case, a coherent relation to ordinary human wants and needs.

This, as we now see, is a costly way to learn the lessons of subjective and moral coherence taught in the world since the time of the Buddha. General Motors and most others in America preferred to accept Adam Smith's doctrine—that the satisfaction of desires is the basic law of human nature and the first principle of social management. Rappaport elaborates on the effects of this preference:

> The ultimate consequence of the promotion of the low order goals of industrialized subsystems to predominant positions in societies is not merely that the short-run interests of a few powerful men or institutions come to prevail, but that those of machines that even powerful men serve are ultimately dominant. Needless to say, the interests of machines and organisms do not coincide. They do not have the same needs for pure air or water, and being blind and deaf, machines have no need at all for quiet or for landscapes that refresh the eye. And whereas organisms have need of uncounted numbers of subtle compounds, the needs of machines are few, simple and voracious, and complex ecosystems are increasingly disrupted to satiate them. It is in accordance with the logic of a world dominated by the gargantuan and simple appetites of machines to tear the top off large portions of the State of West Virginia to extract a single substance: coal. Moreover, such abuse has become increasingly possible because high energy technology has freed men from the limits set upon ecosystem alteration by the need to extract energy for alteration from the system being altered.

What is "the gargantuan and simple appetite" of the machine? We know the answer. The machine has only one law, one *raison d'être,* one end in view, and one value: *Production.* To let

the necessities of the machine dominate our lives is to let the machine's mechanical coherence replace our thinking. Charles Reich put the matter well:

> Only such single-valued mindlessness would cut the last redwoods, pollute the most beautiful beaches, invent devices to injure and destroy plant and human life. To have just one value is to be a machine.

What could be more "coherent" than a smoothly running and well lubricated machine? What more obedient to Ockham's scientific rule of parsimony? The very hills now echo the scooters' harsh hymns attesting the common faith.

Well, there are other voices to be heard. For example Lewis Mumford's:

> Whatever the advantages of a highly organized system of mechanical production, based on non-human sources of power—and, as everyone recognizes, there are many advantages—the system itself tends to grow more rigid, more unadaptable, more dehumanized in proportion to the increase in its automation and in its extrusion of the worker from the process of production.

Such statements have all the diagnostic coherence they need, but not enough audibility. That is to say, the arguments put together by Mumford, Rappaport, and numerous others are sound and irrefutable, but their impact seems small. There is not much relation between the angry growls of dissatisfaction which come from the partially dehumanized and these coherently balanced critiques. Why?

Apart from the obvious deficiencies or the general lag of human nature, there may be a further explanation. For one thing, we get these diagnoses indirectly. That is, they are comments on human behavior *inferred* from conditions in the objective world. These inferences tell us that we have been doing things wrong. They don't inform us how we might have been able to avoid making mistakes on a gargantuan scale.

Consider, for example, a fundamental pattern in Roy Rappaport's scheme of criticism. Bad management results when authority is too centralized, when the natural capacities of local communities and regions are ignored and made impotent by external control. What is the basis of this assumption of centralized power? If we neglect the factor of egomania in taking power, we could say that power is claimed on the assumption that local people don't know enough to run their own lives and have to be told what to do. School administrators argue that teachers don't know enough about teaching and that lesson plans have to be made up by experts in Washington, D.C. Or that first-grade readers must be published in New York, for the whole country, in order to save money and to set high standards for backward states and communities. Of course, the less people do for themselves the less they are able to do, but things are so bad now that we can't take any chances. That's why we are going to keep control. It may be wrong, but we don't *dare* stop. Besides, we have the big picture in mind.

So, back of it all is a theory of man—and man, in practically all scientific theory, is the creature of forces that can be manipulated by those who are willing to treat him as an object. The world—the modern world—is *saturated* with this conception of the human being. Theologians are not much help. The Grand Inquisitor was a top-ranking theologian and, if you read what he said (in Dostoev*sky's The Brothers Karamazov*), he was absolutely sure that he knew more about human nature and human good than Jesus did. Jesus, of course, was no theologian. "Be ye perfect," he said, "even as your Father in Heaven is perfect." Could any theologian put up with that? It is a strangely pantheistic doctrine. Jesus wanted to allocate sparks of divinity (freedom) to everybody—men, women, and children. Jesus, apparently, believed in the potential godhood of human beings. The Grand Inquisitor, being a practical man, saw at once that if this idea were spread it would put the Inquisition out of business. He explained this to Jesus, as any good administrator would. Very coherent, he was.

Roy Rappaport's discussion of varying coherence leads to wondering about philosophies of life and how "coherent" they ought to be. The

most objectively coherent systems are the ones which low-grade man the most. The elaborate codes, the religions which have strong rules and weak principles, are all devised by the Grand Inquisitor.

The pantheistic doctrines are different. Because they leave room for autonomy they have objective incoherences. They can't be closed systems. They leave somewhat mysterious the relation between freedom and order, choice and determination, autonomy and integration. Freedom, choice, arid autonomy are subjective realities which achieve active existence only in minds.

Thus the human mind has two poles. One pole depends upon, is attracted by, ideas of order and predictability. How could we exist without such conditions? You need a rock to stand on, a familiar place to call home, if only so you can leave it now and then. Without some such predictable system to rely on we couldn't even put one foot in-front of the other. But then, if, liking the feeling of security, we extrapolate the predictable universe into the matrix of all possibility, we are driven to second thoughts about this scheme of total coherence. The idea of being controlled by outside forces is a frontal attack on human identity. We refuse to surrender our independence to either Jehovah or the genes of some ancestor. We are willing to have limits to our freedom, since limits are necessary for going to work, but we won't be told what to do.

What is a man, then? A raw, unfinished godling? Words don't matter too much, but their feeling-tone is important. When we use the inflections of a word like "god," thought about the range of its meanings is desirable.

What should one say about "God"? Since far too much has already been said on the subject, we won't construct arguments but lay out what seem useful assumptions. First, the ultimate reality from which everything else is derived cannot be defined. *It* is the definer, the origin, the sourceless beginning. While nothing can be said of this primeval source, it has endless finite representation in the world. The world is filled with countless limited samples of reality. Generalizing, we name the objective contents of the world matter and form, and call the subjective side of being spirit and idea.

So far as the world is concerned, polytheism seems more reasonable than monotheism. If you are going to talk about the meaning of a word like "God" in relation to the world, what more can you say than that God *has* to be intelligence aware of itself, and therefore intelligence free within limits to make decisions about what to do next? Self-aware consciousness has creative power. Creative power is the obverse of destructive power; you can't have one without the other. Both exist in human nature. What then is man? A god who chooses the one, or a devil who chooses the other. What is the divine? The light of consciousness which is always creative—active on the side of growth for all forms of life.

Now this is a pluralistic pantheism, a philosophy for the road, not for heavenly stopping places. It is opposed to all managerial doctrine. If gods are the self-managed intelligences in the cosmos, then humans are occupied in a half-way house of evolution, a place where intelligence must create its own path.

REVIEW
FROM RAGS TO RECOGNITION

IF you want to find out what can be done by people of ability and persistence beneath the varnished and thinly rationalized surface of American life, *The Publish-it-Yourself Handbook* (Pushcart Book Press, Box 845, Yonkers, N.Y. 10701, $4.00), edited by Bill Henderson, is the book to read. After all that needs to be said about the System and its evil ways has been set down, there is still this other side to talk about—the loose, unorganized, susceptible-to-ingenuity part of our time and place. For there is still free space between the joints in the system, the interstices between worn and badly articulated cogs, allowing regions of freedom to be expanded by some unintimidated soul with sufficient imagination to make their dimensions real.

This is a very democratic book. It tells how a talented Chicano in E1 Paso, Texas, put himself and other Chicanos into print, and eventually won for himself an Anchor edition of his essays and poems—if that is really success. How Virginia and Leonard Woolf back in 1917 bought a small press they could operate on the kitchen table, spending about a hundred dollars for everything they needed; how they learned to run it from a set of directions and became the publishers of themselves and people like T. S. Eliot and Maxim Gorky, to name two of the writers whose early work reached print through the Woolfs' Hogarth Press. It tells about how two men in a New Jersey state prison—together doing time of more than a hundred years—managed to put out *Voices from the Big House* after collecting material and writing to printers from their cells. And it tells how Stewart Brand thought up, got together, and issued the first *Whole Earth Catalog.*

There are thirty chapters, most of them by people who managed to print their own books because there was no other way for them to get into print, but also contributions with good "how-to" advice and business sophistication counsel. There are lovely flights of irrelevance by non-business people going through business motions, incredible Walter Mitty success stories, and a fair amount of Good Soldier Schweik asides. One chapter which a MANAS reviewer cannot help but enjoy is the "Story of a Publisher" by Alan Swallow, who died in 1966, after giving first circulation to books like *The Man Who Killed the Deer* by Frank Waters and *On the Gleaming Way* by John Collier. A lot of delighting hidden facets of the "other America" are brought to light in this book.

A section from Anais Nin's *Diary* shows that even the obstacles encountered by writers who know nothing of mechanics can be overcome when other qualities are present. Publishers wouldn't touch two of Anals Nin's books (this was in the 1940's), so—

> For seventy-five dollars I bought a second-hand press. It was foot powered like the old sewing machines, and one had to press the treadle very hard to develop sufficient power to turn the wheel.
>
> Frances Steloff, who owned the Gotham Book Mart in New York, loaned me one hundred dollars for the enterprise, and Thurema Sokol loaned me another hundred. I bought type for a hundred dollars, orange crates for shelves, and paper remnants, which is like buying remnants of material to make a dress. Some of this paper was quite beautiful left over from deluxe editions. A friend, Gonzalo More, helped me. He had a gift for designing books. I learned to set type, and he ran the machine. We learned printing from library books which gave rise to comical accidents. For example, the book said: "oil the rollers," so we oiled the entire rollers including the rubber part, and we wondered why we could not print for a week.

The two books were produced, and word got around through the help of Frances Steloff, and of Edmund Wilson, who praised one of them in the *New Yorker.* Notably, newspapers and magazines ignore small press publications, but Wilson, being indifferent to such conventions, launched Anals Nin. Well, she sold out her two editions and reprinted them with the help of a loan. Then she quit printing because it took months to set a book

by hand, leaving no time for writing. Yet the experience, besides making her known, was valuable:

> . . . more important than anything else, setting each letter by hand taught me economy of style. After living with a page for a whole day, I could detect the superfluous words. At the end of each line I thought: "Is this word, is this phrase absolutely necessary?"

This is the aspect of craft that division of labor leaves out of human experience. Self-printed books would be better; self-typed manuscripts get better; personally researched data are used more critically. There is endless argument in favor of do-it-yourself. What you do in the diverse grain of many occupations leads to associations that seldom reach the expert or the specialist. The spark is no respecter of technical roles. Then there is this reason given by Anaïs Nin:

> I regretted giving up the press, for with the commercial publishers my troubles began. Then, as today, they wanted quick and large returns. This gamble for quick returns has nothing whatever to do with the deeper needs of the public nor can a publisher's selection of a book be considered as representative of the people's choice. The impetus starts with the belief of the publisher, who backs his choice with advertising disguised as literary judgment. Thus books are imposed on the public like any other commercial product. . . . My early dealings with commercial publishers ended in disaster. They were not satisfied with the immediate sales, and neither the publishers nor the booksellers were interested in long-range sales. But fortunately, I found Alan Swallow in Denver, Colorado, a self-made and independent publisher who had started with a press in his garage. He adopted what he called his "maverick writers." He kept all my books in print, was content with simply earning a living, and our common struggles created a strong bond.

This book may create true believers along the lines of "anybody can publish himself," but a careful reading shows that the successes were all unique combinations of much talent, very hard work, and a willingness to live on bread and cheese. Originality and talent are probably the most important ingredients, since all the victories seem inherently improbable. There is the sailor who made a success out of publishing his own manuals on how to sail; he checked every sentence, year after year, for its accuracy, clear communication, and value, and improved the books all the time. And there is the tailor who does books on how to remodel clothes, and writes poetry on the side, or maybe the tailoring is on the side. He did his own illustrations, which were good, and developed a substantial market among tailoring students, finding them through schools.

An item that jumped up for attention has to do with General Grant's memoirs. From Howard Meyer's book on Grant, *Let Us Have Peace* (reviewed in MANAS, Jan. 25, 1973), we learned that in his last years Grant worried about what his wife would live on after he died, so he wrote his memoirs to provide her with an income from royalties. He completed them forty-eight hours before he died. Now, from the *Publish-it-Yourself Handbook,* in the editor's Introduction, we learn that Mark Twain, who became a self-publisher to get *Huckleberry Finn* into print, formed a publishing company and in later years issued the work of other writers:

> His most important project was Grant's *Memoirs,* which sold 312,000 sets at nine dollars a set. Twain gave Grant's widow a whopping 70 per cent royalty. Perhaps because of such generosity, Twain's publishing experiment ended in disaster in 1894. Twain labored four years on a world tour lecture ciralit to pay off his debts.

Bill Henderson gives most of his space to listing the eminent writers who began as self-publishers. Tom Paine was one of them, and his first effort got him fired from his exciseman job in England. Paine's *Common Sense* was also self-published, and, as Henderson says: "Six months later, largely because of this pamphlet, the Declaration of Independence was signed." William Blake produced and published "almost his entire life's work by himself and with the help of his wife, Catherine."

The book contains a lot of slams at conventional publishers, and a few kind words. Mostly, after a writer gets known, he lets the

conventional publishers issue his books. Blake didn't of course, but Blake was more than a fine writer and engraver—he was a great man, and great men seldom fit into any conventional mold. Their resistance isn't so much "virtue" as organic necessity, which is a good rule to go by, especially for people who suspect themselves of greatness without sufficient cause.

So you could say that, by and large, the establishment institutions are the available facilities; they are there to be used, but they should never be allowed to rule the domain of arts and letters. As rulers, they tend to ruin. The do-it-yourself heroes and pioneers keep the establishment cut down to size, or try to, and often reduce it—for themselves, at least—to proper facility status.

It is difficult to imagine a society without an establishment. An avant garde with no mediocrity to reject! What is the establishment? The part of the social tree that has gone to wood, that's no longer growing. But then, a tree without wood couldn't stand up in the forest.

COMMENTARY
WHICH "NATURE" KNOWS BEST?

THIS week's "Frontiers" article speaks of "the natural limits provided by nature."

The idea of "Nature" as a guide is no doubt valuable, but defining the "natural" can become extremely complicated. Which "state of nature" will you accept as authoritative? The Wilderness? The American Indian Way of Life? Nineteenth-century New Englanders? As one of Ivan Illich's colleagues said: "The question as to what is natural will be answered differently by different people."

No doubt we can obtain lots of hints from "nature"—as for example Dr. Nelson's comments on diet, which are based on study of healthy organisms—but the basic problem lies in our lack of motivation for setting limits. There is in man an admirable drive to go "all out" in some direction. This is the heroic mode and we wouldn't amount to much without it. In Eastern tradition it is the absolute commitment of the *Kshatriya* to his calling and duty, and for the teacher it is total devotion to truth and its pursuit. Quite evidently, we have misapplied this drive. For beings who do not "live by bread alone," its general aim should be toward transcendence, but we have turned it toward getting bigger and better bodies, houses, cars, armaments, aircraft, with their accompanying vanities and egotisms. Limits, for human beings, can only be set in the light of a compelling and absorbing ideal.

Humans are natural beings, too, and their highest and best qualities ought not to be excluded from "the natural order of things" to which we refer for guidance.

The *CoEvolution Quarterly* (see lead article), which gets its name from a current biological theory, has much of the sprightly inventiveness that made the *Whole Earth Catalog* so great a success. Yet it can hardly achieve the same popularity, since the material in the *Quarterly* requires considerably more of its purchasers than spending their money in forward-looking and righteous ways. Now they are being asked to *think*, as the articles by Howard Odum and Roy Rappaport demonstrate. This is all to the good, and the resulting limitation on circulation is no doubt obvious to the publishers. Meanwhile, we feel obliged to say that we are not equally enthusiastic about some of the other contributions to the first issue, which may have been included to attract more "liberated" than thoughtful readers.

CHILDREN
. . . and Ourselves
ON RIGHTEOUS CAMPAIGNS

A LETTER from a reader recalls a story told by Dorothy Canfield Fisher in *Vermont Tradition.* The scene is the town of Strafford, where a "brass-lunged, hell-fire-predicting revivalist" was holding forth, back in the early nineteenth century when the evangelical movement swept the nation. The hoarse-voiced speaker fixed his eye on an old Vermonter who had wandered into the meeting out of curiosity:

> "Brother, have you got religion?" To which the Strafford man called back with brisk pride, "Not any to boast of, I can tell ye."

A little of this mood, our correspondent thinks, would leaven the hot-gospel environmentalism of the day:

> The self-consciousness and artfully contrived stance of many environmentalists are a sign of the times. We are so far removed from nature that there is an artificiality even about the commitment to the "saving of the land." There is a professionalism about what ought to be a basic way of life. Clubs, groups, and organizations composed of people dedicated to stemming the misuse and pollution of the environment require specific projects rather than develop a daily life style in which respect and love for nature become part of one's existence.
>
> We are deluged with information and have little time to reflect, to sort out, to weigh and assimilate. In this sense, there is indeed "an affluence of opportunities . . . to see, read, to be informed," and abundance becomes sterile.

This reader speaks of the "promotional" activities of conservation groups, one of which is putting on travel trips to parts of the globe which are not easily accessible—

> It reminds me of a program on television whereby a so-called naturalist, under the aegis of an insurance company, takes camera crews, etc., to distant breeding places of birds and animals. I suppose this is an attempt to combine entertainment and information, but I feel there is a kind of knowledge to which we ought not to be privy. . . . What we need is a modern day Thoreau who would be rightfully critical of these well-meaning persons, intent on being "informed," with their correct outdoor garb and their technologically dried, tasteless rations.

The danger in programmed piety is obvious enough. The defending argument will be that such organized efforts are needed to awaken a lethargic public, and if gimmickry is all that can be understood at the beginning, a little of it may be necessary. Well . . . this is an appeal that excites no enthusiasm since it reveals why the reforms of one epoch tend to grow into the abuses of the next. "Managed" righteousness may be a much worse thing than we suppose. It starts out with built-in weakness because it depends for much of its motivation on the manipulation of unemployed moral emotion, offering packaged, purchasable substitutes for individual effort and invention.

Another excuse for environmental "promotions" is the need to raise money to defray the costs of high-powered lobbying for good causes. It may be admitted that various legislative reforms have been achieved by such campaigns, with lovely areas preserved from the ruthless forays of the Army Engineers and from the multiplying pressures of technological progress. Yet such righteous achievements nonetheless need evaluation in terms of long-term objectives, which by no stretch of the imagination will ever be reached by a spotty succession of organizational triumphs. As our correspondent says, "specific projects" are no substitute for the respect and love for nature which "become part of one's daily existence." Wendell Berry put this well in *The Unforeseen Wilderness:*

> The conservation movement has become almost exclusively a matter of power struggles between agencies and corporations and *organizations* of conservationists. The agencies and corporations are motivated by visions of power and profit. The conservation organizations are motivated by principles which very largely remain abstract, since the number of people who can *know* a place is necessarily too small to protect it, and must therefore enlist the aid of people who do not know it but are willing to protect it on principle.

> I should make it clear that I recognize the need for the conservation organizations, and that I am emphatically on their side. But the organizations, by themselves, are not enough. If they are to succeed at all, their work must be augmented by an effort to rebuild the life of our society in terms of a decent spiritual and economic connection to the land. That can t be done by organizations, but only by individuals and by families and by small informal groups. It will have to be done by leaving the cities and the suburbs and making a bond with some place, and by living there—doing the work the place requires, repairing the damage other men have done to it, preserving its woods, building back its fertility and its ecological health—undertaking, that is, the labor, the necessary difficulty and clumsiness of discovering, at this late date and in the most taxing of circumstances, a form of human life that is not destructive.

We might argue that a society that entrusts its future to various well-informed specialists as reformers is a society well on the way to failure. The "good" society is one where each one does his own reforming, involving the moment-to-moment application of intelligence to the unfolding of experience. Yesterday's good may be less good today, and the thoughtful response of individual intelligence cannot be replaced by the formulated programs of organizations, which are not only inflexible, but too easily become the vehicles of self-righteousness, cant, and complacency.

On the other hand, organizations are necessary, as Wendell Berry says. *Why* are they necessary? The question is crucial, since there is more than one answer. The first and legitimate answer is that organizations are tools for doing jobs that people can't do individually. So they unite their strength to do the things that require common effort. The illegitimate answer is that people need to be prodded into awareness, and that the power and prestige of organization are useful for this purpose. The trouble with the "prodding" theory is that it has no self-limiting principle. Even when the law of diminishing returns sets in, when prodding is less and less productive, the tendency is not to recognize what has happened but to increase the pressure on people. The incredible degradation of the spoken and written word in our culture—noticeable mainly in advertising and politics—is directly traceable to faith in this doctrine of "getting things done." Its basic assumption is false—the idea that some people know what other people ought to do.

There is a paradox, here, of course. Some people are wiser than others. Educators do need to reach people. Information should be spread around. Who would want to abolish the Civil Liberties Union? Reformers are necessary.

It is an irony that, objectively, trying to make a poor society better requires a sort of behavior that is different from what would be natural in an ideal society. An illustration: In a society of wise men, nobody would find it desirable or necessary to talk about wisdom. The realized ideal needs no discussion; in a perfectly moral society the subject of virtue would not come up. But in a society where ignorance is common and morality ignored in many collective actions, it becomes urgent to talk about wisdom, saying that it ought to be pursued, and to point to the contrast between moral man and immoral society. It is useful, for example, to note, as Richard Goodwin did recently, that corporate behavior typically results from the action of only *parts* of human beings. Responsibility has been fragmented.

In such circumstances, what is the thing to do? The man who talks about wisdom is likely to be ridiculed (does *he* know?), and the man who talks about morality is likely to be resented. Meanwhile, people who borrow and compromise the language of these efforts by using the methods of the manipulators seem to win friends and influence people. So paradoxes are all about. Can there be any guiding rule? Dozens of them, probably, could be given, all imperfect and some misleading. But one that might apply to all efforts for human improvement would be this: Never give or accept any counsel that can be followed without being understood.

FRONTIERS

Since the War

BACK in 1971, in the April *Environment* of that year, Barry Commoner pointed out that since 1945—the post-war period—pollution of air, water, and soil greatly increased, not only because of increased industrial production, but also because of the *kind* of technology that was then more widely applied. Agriculture, for one thing, turned increasingly to the use of nitrogen fertilizer, which tends to drive "nitrogen out of the soil and into surface waters." While Americans eat about as much as they used to, per capita, their food "is now grown in ways that increase pollution." A major factor in air pollution has been the increase in total horsepower of automotive vehicles—by 260 per cent from 1950 to 1968. Land pollution results from the large increase in synthetic manufactured articles which, when discarded, do not fit into nature's disposal systems. Many of these articles require high-temperature processing, diminishing fuel resources as well as increasing the pollution caused by power generation. Mercury is a catalyst often required by the "numerous synthetic compounds that have been massively produced during the last thirty years."

During about the same period, the foods eaten by the American people were altered by chemical innovation. In *The Chemical Feast*, James Turner reported:

> . . . between 1950 and 1965 the food industry went through its period of fastest growth almost completely unmonitored. In that time a brand-new series of problems—including the hazards involved with the chemical environment through the use of food additives, the threat of food contamination becoming nationwide through a modern mass-distribution system, the monitoring of dangerous pesticide residues, the introduction of brand-new synthetic foods made up entirely of chemicals—developed without serious attention from the FDA [Food and Drug Administration].

Now comes a comment on the American diet by some leading nutritionists (*Los Angeles Times*, April 25). Speaking at a nutritionist conference at Carmel, Calif., George M. Briggs, professor of nutrition at the University of California in Berkeley, warned that the loss of fibers in diet through the refinement of foods is a growing threat to health. Important trace elements, not mentioned in the dietary recommendations of the National Academy of Sciences, are increasingly lacking, while sugar and fats are being added .Similar warning was made by Dr. Ralph A. Nelson, head of clinical nutrition at the Mayo Clinic in Rochester, who also attributed the reduction of fibers in diet to the increasing consumption of refined, processed foods. The *Times* reports:

> According to Dr. Nelson, societies consuming fibrous foods have practically no problems with constipation, appendicitis, benign or malignant tumors of the colon and rectum.
>
> At present there are no nutritional guidelines for fiber in foods, but it is easy for the consumer to increase foods which contain higher quantities of fiber than most refined foods, such as all-bran, raw carrots, cooked Brussels sprouts, dried prunes, potatoes, raw apples, frozen peas, dried peaches and figs.

Dr. Nelson is convinced that Americans eat too much—a habit euphemistically termed "overnutrition" in the *Times* account. Citing experimental evidence that obesity shortens life and that calorie and protein reduction protects against cardiovascular and central nervous system diseases, he said: "Studies of agriculturally oriented societies where people live to well over 100 years old have revealed that these aged people eat about a third as many calories and about half as much protein as currently recommended for Americans." Dr. Nelson pointed out that eating less protein results in a reduction of kidney diseases, and he reproached coaches who encourage children and young athletes to eat more to become "stronger." Excess protein, he said, doesn't increase muscle tissue and the young who acquire habits of over-eating will pay for it later on.

Another speaker at this conference, Dr. Lloyd J. Miller, Jr., pediatrician at the University of Iowa College of Medicine, approved the present trend back to the breastfeeding of infants, observing that bottle-fed babies are often overfed, sometimes because mothers don't like to "waste" the formula and force the baby to use it up. In this way, babies sometimes get ten to fifteen per cent more calories than they need, which may predispose them to obesity. He also said that oral contraceptives taken by nursing mothers interfere with the growth of babies.

Judging from the prominence given this conference by the *Times*, nutritionists are at last getting a hearing and may be able to exert wider influence in the future. For basic reading on the subject, a good book to begin with would be *Toxemia Explained* (1926) by John Henry Tilden. While the concept of toxemia is not readily acceptable from a rigorously scientific point of view, this may be accounted for by the complexity of the problem and the numerous "variables" which enter into all questions of nutrition and general bodily health. The fact remains, however, that intelligent attention to diet is probably the chief non-psychological factor in maintaining good physical condition. Dr. Nelson drew attention to the sensible eating habits of certain "agriculturally oriented societies," and counted among these would certainly be the Hunza people who live on the northwest frontier of Kashmir. (See J. I. Rodale's *The Healthy Hunzas*, and for a general comparison of the effects of primitive and modern diets, see *Nutrition and Physical Degeneration* by Weston A. Price [American Academy of Applied Nutrition, Los Angeles, Calif. 1945].)

Looking at the various conditions we have briefly reviewed, we might say that the American people are rapidly being overtaken by the ill-effects of what Herman Daly diagnosed as "growthmania." As he put it, "Given finite stomachs, finite lifetimes, and the kind of man who does not live by bread alone, growth becomes undesirable long before it becomes impossible." Another diagnosis might suggest that a technology-admiring society loses touch with many of the natural limits provided by nature, and that without these built-in regulators the technological principle of "always more" takes over and dominates our lives.

Well, how can we replace the controls we have lost? It is difficult for anyone but the young and sturdy to "go back to nature" in a literal sense, and the adaptation of many millions of people to comparative dependence on technology makes change or re-education for change a long-term affair. Simple suggestions such as that by Nicholas Johnson ("Start doing as much as you can for yourself") and by Theodore Roszak ("Notice what you can healthfully do without, and then manage without it") are probably the best, so far as many individuals are concerned. For group undertakings and social planning, books like *Blueprint for Survival* might help to show the way.