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THE PAIN OF CHANGE

EVEN change for the better brings pain. Involved for individuals is the personal pain of overcoming or altering habits, which can be acute, if endurable. Social change belongs to another order, producing pain that may be intolerable. Technological change, as we know, often throws a whole generation of people out of work. If they are too old or temperamentally unable to learn another trade or job, they waste away in the dustbins of society, feeling guilty and getting to hate themselves because they can no longer produce. That's a cost of progress, we say. It can't be helped.

Even a deliberately planned reform, Nicholas Hildyard, an editor of the *Ecologist,* argued in the January-February issue, is likely to cause pain, so long as people have to buy what they need to stay alive. His article is meant as a warning to appropriate technology reformers who suppose that if people are able to do for themselves at a local level, all will be well. This doesn't follow, he says, if the society has been distorted by dependence on the cash nexus.

> Once a society is enmeshed in the market economy (whether it is run on capitalist or socialist lines), the use of technology inevitably becomes subject to market forces—forces which can render the most "appropriate" technology inappropriate. It has been calculated, for instance, that the 60,000 biogas plants currently in use in India have probably saved over 160 million dollars in foreign exchange—largely through cutting down imports of chemical fertilizers. But, despite its technical advantages, the biogas plant has failed to benefit those whom it was intended to benefit. As Joseph Hanlon put it in the *New Scientist:* "Widely touted as a truly appropriate technology, biogas plants have so far been used only by rich farmers because of the high capital costs required and the fact that even the smallest plant requires the dung from two cows. Furthermore, biogas plants mean that dung [used as fuel by the poor] which was previously free, now has a cash value and landless villagers can no longer pick it up easily off the road." A.K.N. Reddy, the Indian scientist, goes further: "The villagers are in no position to buy biogas plants so they will end up with no fuel at all—in other words, their position will be worsened by the introduction of the biogas plants."

Such testimony is powerful, but is it really an argument against the use of biogas for both energy and fertilizer? Hildyard doesn't mention that a research team headed by Reddy, after a study of an Indian village (Pure) of fifty-six families which depend upon firewood for their cooking, decided that there was only one solution:

> ASTRA's scientists came to the conclusion that the means of solving a problem must closely correspond with the end. They figured out that in the long run the most effective answer would be a fuel forest. They calculated that a 5-acre plantation of quick-growing species such as Casuarina and kool-babool could provide, after a gestation period of three to five years, enough fuelwood to meet Pura's annual requirement of 217 tonnes. Now they have persuaded the villagers to raise such an energy forest on eight acres of fallow land around Pura.

The dung of the village's 160 milk cows is enough to operate a community biogas plant. The gas will be free to the villagers for cooking, the slurry which remains makes a better fertilizer than raw dung, and there will be enough gas to generate electricity for sale to small industry and to run irrigation pumps.

In principle, then, the need for dung as fuel will be eliminated by the wood of the fuel forest, while the village economy will be greatly improved by the biogas plant.

But Mr. Hildyard has only to point out that this balanced local economy exists (or is planned) for only one village, while there are 60,000 biogas plants around the country, using up the dung that was once the free fuel of the poor. So even widely distributed community biogas plants, while decentralizing the source of energy and

contributing to local autonomy, will for a time work even greater hardship on the already deprived segment of the population.

Can any society, Hildyard asks, develop "appropriately," however sound its technology, "so long as it is enmeshed in a market economy?" The market imposes a rigid pattern, preventing individual resourcefulness from saving people from actual hunger. He says:

> Indeed, such is the nature of the market economy that I am bound to wonder whether there is a single ecological problem that can be solved so long as we remain with it. Take for instance the influence that the market wields over our nutritional health. Until recently the peasants of Tabasco in Mexico were virtually self-sufficient in food. Convinced that the peasants in the region would be better fed if they were absorbed into the cash economy, the Mexican government established a series of collective farms. The result has been a nutritional disaster: as one woman put it . . . "Before we didn't suffer—it was better to produce what was needed—there was always food to eat." Whereas previously the peasant farmers of Tabasco had grown a wide range of foods for their own consumption, today they eat what they can buy—and more often than not it is of poor nutritional quality. The highly nutritional local drink (known as Pozol) has been replaced by soft drinks: tortillas have given way to sweet rolls, white rolls, crackers and biscuits; meat which used to be produced by most families is now sold only once or twice a week—this despite Tabasco being a cattle-raising area. Malnutrition is on the increase: meanwhile most of the beef produced in Tabasco is exported to central Mexico. Such is the nature of the market system.

The worst thing about the market system is its deadly uniformity. Under its rule the individual ingenuities of a subsistence economy are wiped out. Either you have money or you don't eat. Actually, Nicholas Hildyard's editorial is about the extreme difficulty of restoring, at the community level, the chief features of a subsistence economy, after the market economy has taken over. Even doing undeniably good things on a *social* scale is likely to prove harmful to people who have become totally dependent on the market system. In other words, constructive change takes *time*, meanwhile imposing pain and sacrifice on those least able to fend for themselves.

In this editorial Hildyard is more of a critic of the market system than an advocate of ecological reform; or rather, he is claiming that ecological measures may prove ineffectual so long as the market dominates economic relations. The market system, he argues, prevents American farmers from taking proper care of their land.

> A recent report by the Comptroller General of the United States points out that "More than one third of U.S. cropland is suffering annual soil losses in excess of the limit at which soil productivity can be sustained over time." Indeed, soil erosion in the U.S.A. is now worse than it ever was in the worst years of the dust bowl era. I quote again: "The United States is losing 4 billion tons of soil a year through water erosion, as compared to 3 billion tons in 1934. It would take a train of freight cars about 633,000 miles long to move 4 billion tons of soil—a train long enough to circle the earth 24 times."
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> It is a major problem. But it cannot be solved in a market economy: Time and time again, farmers have been asked to improve their farming methods—and time and again they have told soil conservationists that they cannot afford to do so. And this despite some 15 billion dollars spent in subsidies since 1936. . . .
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> So long as the market exists, can we really expect any better fate than the long-term collapse of our society and the wholesale degradation of our environment? I doubt it. History has proved all too often that the market has little to offer the Third World; it must trade the indispensable for the superfluous—its forests for cars, its food for nuclear power stations. Nor is the West any more favored: it too must make sacrifices at the market altar. Just as it is economic for Sri Lanka to export its top soil to Saudi Arabia, so is it economic for the West to pollute its seas with chemical and radioactive waste, to destroy its communities and to desecrate its cities.

Here the *Ecology* editor is appealing to the countries of the Third World. They have, he says, the power to break the shackles of the market system. And they can't adopt ecological methods of self-support and practice self-reliance unless they disentangle themselves from the meshes of the market economy. This would mean, of

course, great difficulty in obtaining foreign loans for "development." And if the people of those countries are envious of the apparent affluence of the "advanced" nations, the statesmen of the Third World would have a hard time retaining popular support.

Hildyard provides a convincing account of how technology, under the control of the market system, produces havoc in regions where subsistence has been the rule:

> All too often, technology is described as a "neutral tool"—that is, one which in itself cannot affect society. Yet, however simple a technology might be, its introduction into society inevitably changes the nature—and frequently the stability and viability—of that society. Willy nilly, it raises or lowers the constraints on society. And it *always* imposes its own set of constraints. Indeed, it is not for nothing that it has been said that if one wants to destroy Eskimo culture, one only has to give the Eskimo a pair of Wellington boots or a gun. Thus, once an Eskimo has a rifle, there is no longer any need to hunt caribou in groups of related families: instead, each family becomes independent, able to hunt themselves. The group structure breaks down, the nuclear family is all that's left—and the Eskimo's culture has effectively received a death-blow.
>
> So, too, we can see the effect that the introduction of the steel axe—let alone the chain saw—has had on the cultural lives of forest people. Not only can a man with a stone axe cut fewer trees (and thus do less environmental destruction) than a man with a steel axe or a chain saw, but the introduction of steel axes and chain saws irrevocably changes his society. He is no longer separate from the market system. The saw or the axe has to be produced, the steel it is made out of must be smelted, a distribution system must be set up to get the saw to those who don't live near the factory where it is manufactured. All of which entails a very different society from that in which a man can fashion an axe from materials readily available to him for free.

This analysis, however accurate, is devastating rather than appealing to people who invent and use better tools. Hildyard will of course say that he is reciting facts about the social impact of specialized tools, not insisting that we give them up. But the argument leaves unmentioned the distinction made by Jacques Ellul (in *The Technological Society*) between tools which amplify individual skills and machines which eliminate them. This is the point of Schumacher's emphasis on appropriate technology. The *right* technology generates patterns involving both self-reliance and cooperation, and while the impact of changes so introduced may create some difficulties, like all "growing pains," they can at least be borne.

There is, in short, no perfect socio-economic arrangement, just as there can be no painless and hazardless human life. Development must be based on essentially human goals, not simply more production. Cost-benefit analysis is certainly in order, but in terms of human, not economic values.

There is a sense in which moving toward an ecologically balanced society is harder for, say, Americans, than it is for the people of Third World countries. In Africa and Asia there are still regions untouched by the imperatives of the market, while such places are almost impossible to find in the United States. Not only have our lands and institutions been pulled out of shape by adaptations to the market, but our minds, too, have been twisted into acceptance of these distortions. The good things of life, we have been instructed, are what you can count. Only what can be counted can be priced and listed by the market—stock or super.

So, taking these habits into consideration, our situation as a candidate for reform is much worse. Yet the inflexibility of our economic institutions seems somehow balanced by the personal qualities of the people—individual drive, inventiveness, and the tendency to look up and around. Americans—and Westerners generally—are still good at improvisation, at ad hoc adaptations to bad circumstances, and they are sometimes willing to experiment with marginal ways of life. There is poetic splendor in the fact that Sir Albert Howard first recognized the secret of "organic gardening" in the practices of peasants in India, and then, as a

scientist, figured out why they were good and worked so well, and *developed* what he learned into a body of knowledge which could spread around the world. No doubt, if we give the project close attention, we can learn a great deal from the Eskimos, from the Hopi and other Indians, the Africans, and the Maori, without finding it necessary to join the tribe. Our problem is not in absorbing know-how, but in seeing the point of doing it, and then persuading our friends and relations.

How do we do it? How can we interest people in experiencing a little pain? Mostly we talk and pass around articles and books, but we haven't any idea of what swings the balance of human decision in the right direction. Jane Addams, a biographer tells us, was led to undertake her beneficent career after watching a bullfight in Madrid, and if that's the way good things are made to happen, what is the use of attempting "education"?

Well, books and articles are one way of helping to get people ready for being horrified by a bullfight. Good writing about bad things has its effect. Good writing about the bad things we have been brought up to regard as good is even more effective. It may make an angry little vacuum in our lives, but vacuums, as we have heard, soon find tenants for action. A book filled with material of this sort is Joan Gussow's *The Feeding Web* (Bull Publishing Company, $11.95). We have seldom encountered so many well-told horror stories about food between two covers—bullfights of one sort or another. The book has lots of contributors, all good and some magnificent. The editor frames their work with introductions and comment, her own writing providing some of the best. One of her selections is from *Global Reach* by Richard Barnet and Ronald E. Muller. It begins with quotation from a Venezuelan "communications" expert, Evangelina Garcia, who describes the effect of American (U.S.) "values" on the people of her country after being schooled by advertising.

> Today in Venezuela, she notes, "the housewife measures her happiness by whether she has a refrigerator. . . . before, a woman s happiness was to have children, depend on her husband, even to have goods but not to show them." Advertising, she concludes, creates a psychological dependence. One's sense of self-esteem is determined by what one buys. In effect, they are saying, "My security—my emotional security—depends upon what I consume." Advertising is popular among the very poor in Latin America. While a few intellectuals and nationalist politicians worry about the effects of scientific huckstering, most people appear to accept the rationale which the advertising agencies give for their activities. The advertiser is like a friend who tells you about all the wonderful things in the world that you didn't even know existed. . . .

That's *worse* than a bullfight. The bull at least has horns, but these people are defenseless against the propaganda of consumerism, or so it seems. These authors continue:

> Global marketeers are not persuaded that there is anything wrong with spreading the thrill of consumption in poor countries. "The factory girl or the sales girl in Lima or Bombay (or the Harlem ghetto)," says Peter Drucker, "wants a lipstick. . . . There is no purchase that gives her as much true value for a few cents." The fact that she is in all probability malnourished and without a decent place to live does not mean that she is spending foolishly. Albert Stridsberg, an "international advertising specialist," writing in Advertising Age, says that we must rid ourselves of "the conventional range of ideas about what will minister to the poor man's physical needs. The psychological significance of his spending his money on a transistor radio may be more important than the physical benefit generated by spending the same money for basic foodstuffs." It is an interesting theory, especially when applied to a country like Peru where, it is estimated, a substantial number of all babies born begin life with serious, and possibly irreparable, brain damage due to malnutrition.

No reader of Joan Gussow's book can have a nice day after reading about what happens to "bottle babies" in Latin America and elsewhere in the Third World.

REVIEW
WE KNOW NOW. . .

ONE who takes up Barbara Tuchman's *Practicing History* (Knopf, 1981) will find it filled with readable common sense. Here is also a sense which does away with partisan slogans. For example, in an essay (address) composed in 1972, "The Civilian versus the Military," she inquires into responsibility for the Vietnam War. For a start, she reports that (at that time) there were "defense plants or installations in 363 out of the 435 congressional districts in this country—in five-sixths of the total."

> Who benefits? Who profits? Who lobbies in Congress to keep them in operation or to attract new plants where there are none? If you say it is the Pentagon, do not forget the local merchants and manufacturers, the local unions and employers, and the local Congressman whom we put there and whom we can recall. Who pays for our military budget of $85 billion? The taxpayers—who also have the vote.
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> Traditionally, the American Army has considered itself the neutral instrument of state policy. It exists to carry out the government's orders and when ordered into action does not ask "Why?" or "What for?" But the more it is used for political ends, the less it can retain the stance of innocent instrument. The same holds true of the citizen. Our innocence is too flawed.
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> The fundamental American premise has always been civilian control of the military. The Vietnam war is a product of civilian policy shaped by three successive civilian Presidents and their academic and other civilian advisers. The failure to end the war is also, in the last resort, civilian, since it is a failure by Congress to cut off appropriations.
>
> And where does that failure trace back to? To where the vote is. I feel bewildered when I hear that easy, empty slogan "Power to the People!" Is there any country in the world whose people have more than ours?

By no means a pacifist in the Quaker meaning of the term, Mrs. Tuchman argues that the draft, resulting in a civilian army, works—or should work—as a corrective, a democratic corrective, of growing military influence. Citizens in arms, she suggests, are the "guarantor against tyranny and military *coups d'état."* Speaking of the Vietnam war, however, she says that the college deferrals made the draft a mockery.

> The deferral system was as anti-democratic and elitist (to use the favorite word of those who consider themselves equalizers) as anything that has happened in the United States. I may be happy that it kept my kin and the sons of some of my friends out of Vietnam, but I am nonetheless ashamed of it.
>
> We need to re-admit some common sense into conventional liberal thinking—or feeling—about the military. It seems to me urgent that we understand our relationship to the soldier's task free of emotion.
>
> I know of no problem so subject as this one to what the late historian Richard Hofstadter called "the imbecile catchwords of our era like 'repression' and 'imperialism' which have had all the meaning washed out of them." Those who yell these words, he wrote, "simply have no idea what they are talking about."
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> The role of the military in our lives has become too serious a matter to be treated to this kind of slogan thinking, or non-thinking.

The historian is one who not only reads history (a lot of us do that) but writes about it. Writing, if done at all well, has the effect of teaching the writer to assimilate what he reads. One of the things the historian learns is that there are *constants* in human nature—a lesson that makes judgments about past, present, and future fairly reliable. History, then, apart from the prudence it may inspire, is also a search for the minute changes in human nature which may be denominated "progress," although, for the careful historian, these may become increasingly difficult to find.

One essay by Mrs. Tuchman is devoted to showing the light given by history on the present. This is a time, she says, which the writers of the *Cambridge Modern History* decided to call "The Age of Violence." She sums up the justification:

> The physical aspects of our troubles—pollution, war, overpopulation,—you know all about that, and equally the intangible aspects—that is, the general discontent and uneasiness, dissatisfaction of the young, bewilderment of the old, crime and tension,

> collapse of standards, both aesthetic and ethical, the sexual wilderness and obsession with sadism, and so forth. The catalogue is long and very familiar and I need not run it down to the bitter end. My purpose is not to discuss the condition but to try, as a historian, to locate the cause.
>
> Doubtless some of you [she is speaking to college students] will think this a meaningless endeavor, on the theory that the past is unimportant and that what counts is today. I gather from occasional excursions to the campuses that the young are passionately concerned with the present and inclined to shrug off the past as irrelevant. They want to know all about Kafka but not Plato, Sartre but not Shakespeare, Black Power but not the French Revolution, and they believe that American history began with John F. Kennedy. . . . The advantage of history is knowing that there is as much relevance to be found in the Peloponnesian War as in yesterday's newspaper; more relevance in the Socratic dialogues than in some hastily concocted course in social psychology. What is relevant, after all, is human experience and this has been accumulating for quite some time. Any person who considers himself, and intends to remain, a member of Western society inherits the Western past from Athens and Jerusalem to Runnymede and Valley Forge, as well as to Watts and Chicago of August 1968.

A brief paragraph illustrates the content of this chapter—the writer's showing of how history informs us about ourselves:

> Nineteenth-century liberalism had assumed that man was a rational being who operated naturally according to his own best interests, so that in the end, what was reasonable would prevail. On this principle liberals defended extension of the suffrage toward the goal of one man one vote. But a rise in literacy and in the right to vote, as the event proved, did nothing to increase common sense in politics. The mob that is moved by waving the bloody shirt, that decides elections in response to slogans—Free Silver, Hang the Kaiser, Two Cars in Every Garage—is not exhibiting any greater political sense than Marie Antoinette, who said, "Let them eat cake," or Caligula, who made a horse his consul. The common man proved no wiser than the decadent aristocrat. He has not shown in public affairs the innate wisdom which democracy presumed he possessed.

Is there then no progress? Mrs. Tuchman *suspects* that there has been a little, but in this chapter is intent on locating the causes of our troubles. Learning why things happen as they do may make our time "seem less senseless and absurd."

"What Might Have Been?" would be a good title for the chapter which tells of an offer, made by Mao Tsetung and Chou En-lai in January of 1945, to come to Washington "to talk in person with President Roosevelt" about the future relations of China with the United States.

> What became of the offer has been a mystery until, with the declassification of new material [in 1972], we now know for the first time that the United States made no response to the overture. Twenty-seven years, two wars, and x million lives later, after immeasurable harm wrought by the mutual suspicion and phobia of two great powers not on speaking terms, an American President, reversing the unmade journey of 1945, has traveled to Peking to treat with the same two Chinese leaders. Might the interim have been otherwise?

This is a question which can have no answer, but is certainly worth asking. Mrs. Tuchman devotes twenty pages to reciting the facts of the American rejection of the Chinese overture, and ends by saying that if "wisdom in government eludes us, perhaps courage could substitute—the moral courage to terminate mistakes."

COMMENTARY
THE MARKET ECONOMY

AGAIN and again, writers concerned with health problems come up against the social and economic structuring of a society of people convinced that the right to make a profit eliminates any consideration for human needs. The "ethics" of acquisition long ago displaced the obligations of human fellowship, so that the latter are not even thought of in connection with the plans and projects of industrial and commercial enterprise. This was the bitter discovery of Norman Bethune, of Frances Moore Lappé, and, as the contents of *The Feeding Web* make plain, of Joan Gussow. (See page 7.)

Our business institutions reflect these habits of thought. How can they be changed? The question has an answer, but the implications of the answer are not easy to apply. They suggest a change in the attitudes of *all* the people, not only those who happen to be in business. Successful businessmen are merely the efficient and lucky ones of our society.

There is a good and sufficient reason why you won't find much about the virtues of spinach or fibrous greens in this book edited by a committed nutritionist. She discovered that most people don't really *want* to eat what is good for them. Americans are as much the victims of the sales appeal which lubricates the market economy as the people of the Third World. Joan Gussow asks:

> Creating and satisfying wants such as lipsticks and transistor radios while the basic necessities of life recede ever further perpetuates and compounds mass misery in poor countries. (In certain Peruvian villages a pathetic item is a piece of stone painted to look like a transistor radio. Peasants too poor to carry a real one carry it for status.) Global corporations have the enormous power to determine what does or does not give "psychological satisfaction." It is disingenuous to talk about the "dictates of the consumer" when the consumer is so thoroughly subject to the dictation of the modern technology of manipulation.
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> What happens to a commodity for which there is a fixed rational market in an economic system which requires continual and accelerating growth? . . .
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> First, over-consumption must be encouraged. And second, non-caloric food must be invented. These permit a sort of Dorian Gray approach to gluttony; aided by indigestible "bulking agents" like methyl cellulose, and non-caloric sweeteners like the cyclamates of fond memory, we can be tempted to consume far beyond need and yet avoid being as fat as our overindulgence would normally imply. . . Food is becoming more artificial simply because, in order to stay in business, manufacturers feel they must sell more and more complex, more and more inventive, more and more novel food items with a longer and longer shelf life, at greater and greater profits. It's the American way.

There are worse, far worse things described in this book. Reducing the power or finding a way out of the market system is the only remedy in sight.

CHILDREN
. . . and Ourselves

THE MEANING OF PROPRIETY

TO whom or to what are we responsible for what we do? Is this a question that has a place in education? On the assumption that inquiry into human responsibility has a place—the place suggested by omnipresence—in relation to every sort of action, we give attention to Wendell Berry's "Standing by Words," an essay first published in the 1980-81 Winter *Hudson Review*, and now available in a booklet issued by The Lindisfarne Press, R.D. 2, West Stockridge, Mass. 01266, $3.00 (also as a part of a forthcoming book of essays, North Point Press, Berkeley, Calif.).

The use of language, Berry shows, reveals how a writer or speaker thinks about responsibility. Perhaps it would be more accurate to say, how he or she *feels* about it, since feeling about one's relations to others comes before thought or speech. Thus language is for Berry a diagnostic tool. He begins by saying that the present is characterized by two "epidemic illnesses," disintegration of communities and disintegration of persons, leading to moral isolation. Moral isolation means severance from responsibility. Berry's essay is concerned with the gradations of responsibility, which may be represented by concentric circles surrounding the individual actor—circles whose areas are determined by lengthening radii which extend the field of human action from the personal to the universal. Since we talk about what we do, why it was good or bad to do, and argue for what we intend to do, our sense of responsibility is disclosed in what we say. Berry observes:

> My impression is that we have seen, for perhaps a hundred and fifty years, a gradual increase in language that is either meaningless or destructive of meaning. And I believe that the increasing unreliability of language parallels the increasing distintegration, over the same period, of persons and communities.
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> My concern is for the *accountability* of language—hence of the users of language. To deal with this matter I will use a pair of economic concepts: internal accounting, which considers costs and benefits in reference only to the interest of the money-making enterprise itself; and external accounting, which considers the costs and benefits to the "larger community." By altering the application of these terms a little, any statement may be said to account well or poorly for what is going on inside the speaker, or outside him, or both.

Here accountability and responsibility have the same meaning.

In present-day discourse, accountability is invariably measured in terms of expanding self-interest. Accountability stops when we, directly or indirectly, are no longer affected (either sooner or later) by what we do. Totally lacking is the idea that humans are on earth in behalf of some Promethean errand—that we have a *work* to do.

The contrast is between what we are *able* to do, by reason of our technological intelligence and enterprise (also, interestingly, a Promethean gift), and what we *should* do—a naturally assigned responsibility, so to speak. The wonder, promise, and direction of our technological talents are summed up in a quotation from Buckminster Fuller—the true glory, he seems to be saying, of our species. Humans have this history, in his elaboration:

> First the humans developed fish catching and carving tools, then rafts, dug-out canoes and paddles and then sailing outrigger canoes. Reaching the greater islands and the mainland they developed animal skin, grass and leafwoven clothing and skin tents. They gradually entered safely into geographical areas where they would previously have perished. Slowly they learned to tame, then breed, cows, bullocks, water buffalo, horses and elephants. Next they developed oxen, then horse-drawn vehicles, then horseless vehicles, then ships of the sky. Then employing rocketry and packaging up the essential life-supporting environmental constituents of the biosphere they made sorties away from their mothership Earth and finally ferried over to their Sun orbiting-companion, the Moon.

Up and away! We've worn out the earth and it's time to move. Paul Goodman's musings (in the *New York Review of Books*, April 10, 1969) on the effect of this outlook do not seem exaggerated. He said:

> The young are quick to point out the mess we have made, but I don't see that they really care about that, as if it were not their mankind. Rather, I see

them with the Christmas astronauts flying toward the moon and seeing the earth shining below: it is as if they are about to abandon an old house and therefore it makes no difference if they litter it with beer cans. These are bad thoughts.

Berry takes from Faulkner's story, "The Bear," the explanation by Isaac McCaslin of his relinquishment of the ownership of land:

> He made the earth first and peopled it with dumb creatures, and then He created man to be His overseer on the earth and to hold suzerainty over the earth and the animals on it in His name, not to hold for himself and his descendants inviolable title forever, generation after generation, to the oblongs and squares of the earth, but to hold the earth mutual and intact in the communal anonymity of brotherhood, and all the fee He asked was pity and humility and sufferance and endurance and the sweat of his face for bread.

These are words with only relics of meaning in the modern vocabulary. If we speak of "pity and humility and sufferance," it is only to tell about how humans once felt, in their unprogressive state. Is the ground of these feelings gone from our lives? What else, with their departure, has also been carried away? Berry comments:

> The only continuity recognized by Mr. Fuller is that of technological development, which is in fact not a continuity at all, for, as he sees it, it does not proceed by building on the past but by outmoding and replacing it. And if any other human concern accompanied the development from canoes to space ship, it is either not manifest to Mr. Fuller, or he does not think it important enough to mention.
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> The passage from Faulkner, on the other hand, cannot be understood except in terms of the historical and cultural continuity that produced it. It awakens our memory of Genesis and *Paradise Lost*, as *Paradise Lost* awakens our memory of Genesis. In each of these the human place in Creation is described as a moral circumstance, and this circumstance is understood, each time, it seems to me, with a deeper sense of crisis, as history has proved humanity more and more the exploiter and destroyer of Creation rather than its devout suzerain or steward. Milton knew of the conquests of Africa and the Americas, the brutality of which had outraged the humane minds of Europe, providing occasion and incentive to raise again the question of the human place in Creation. . . .
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> What we have in these two statements is an open conflict between unlimited technology and traditional value. It is foolish to think that these two are compatible. Value and technology can meet only on the ground of restraint.

The modern rejection of restraint grows out of the reduction of responsibility to calculations of mere prudence. Our place in the world is anywhere we can make some kind of profit. Or, as Berry says, humans "are necessarily confused about where they belong."

> Where does this confusion come from? I think it comes from the specialization and abstraction of intellect, separating it from responsibility and humility, magnanimity and devotion, and thus giving it an importance that, in the order of things and in its own nature, it does not and cannot have.

How can the power of moral tradition be restored to our lives? By adding, Berry suggests, the factor of religion, in the sense of our mysterious connections with all that we know, or cannot know, with a consequent sense of humility and restraint, "so that the initiative to act would always imply a knowing acceptance of accountability for the results."

> The establishment and maintenance of this limit seems to me the ultimate empirical problem—the real "frontier" of science, or at least of the definition of the possibility of a *moral* science. It would place science under the rule of the old concern for propriety, correct proportion, proper scale—from which in modern times, even the arts have been liberated. . . . Judgment could then begin to articulate what is already obvious: that some work preserves the household of life, and some work destroys it. And thus a real liberation could take place: life and work could go free of those "professional standards" (and professional languages) that are invariably destructive of quality, because they always work as sheep's clothing for various kinds of ontogenetic [selfish] motives. It is because of these professional standards that the industries and governments, while *talking* of the "betterment of the human condition," can *act* to enrich and empower themselves.

We need, in short, to find and use language by which we no longer deceive ourselves, or anyone else, and to stand by it.

FRONTIERS

The Rise of the Self-Employed?

THE time is coming—it may be here—when more people will begin to think differently about being "gainfully employed." We have the habit of regarding anyone who doesn't work for somebody else as either a loafer or a dimwit. The rite of passage for a young man or woman who has completed schooling is the instruction: "Go out and get a job." This has been going on for at least a hundred years. Having and holding a job is the basic sign of good character. Little by little, however, not *needing* a job is coming to be a better sign. What sort of world would we have if everybody, or nearly everybody, was self-employed?

Such a world existed in the past, and there are cultural reformers who want it to exist again. An editorial in *Science for Villages* (May) by Devendra Kumar begins with a Hindi proverb which declares that the best life is working on one's own land, the middle course is being self-employed, while the worst is being somebody else's wage servant. The monthly, *Science for Villages* (Mayan Sangrahalaya, Wardha 442001, M.S. India), is devoted to applications of technology that contribute to village autonomy, showing that scientific invention need not lead to centralization of economic power, but can be aimed in the opposite direction.

Kumar quotes from Ivan Illich's recent book, *Shadow Work:*

> Until the late twelfth century, the term poverty designated primarily a realistic detachment from transitory things. The need to live by wage labor was the sign for the down and out, for those too wretched to be simply added to that huge medieval crowd of cripples, exiles, pilgrims, madmen, friars, ambulants, homeless that made up the world of the poor. The dependence on wage labor was the recognition that the worker did not have a home where he could contribute within the household.

The effective change in attitude came between the seventeenth and the nineteenth centuries, Illich says. "Instead of being a proof of destitution, wages came to be perceived as a proof of usefulness." In the eyes of those who paid them, wages came to be viewed "as the natural source of livelihood for a population." There were of course causes of this change, among them the enclosure of the commons and the rise of the industrial revolution. The factories needed the workers who were driven from the land. "Wage labor," a French scholar exclaimed in 1777, "is the natural source of enrichment for the poor." The subsisting poor who wanted to support themselves resisted, but the dominant tendencies of the age were against them. As Illich says:

> The bourgeois war on subsistence could enlist mass support only when the plebeian rabble turned into a clean living working class made up of economically distinct men and women. As a member of this class, the man found himself in a conspiracy with his employer—both were equally concerned with economic expansion and the suppression of subsistence. Yet this fundamental collusion between capital and labor in the war on subsistence was mystified by the ritual of class struggle.

How, indeed, could there be either a labor movement or a revolutionary proletariat without wage-earners for recruits?

Devendra Kumar draws a parallel between the pre-industrial economy of Europe and the village economy of India:

> Thus we find in India, as well as in Europe, the self-subsisting occupations that were the rule, and which the industrial wage-earning civilization usurped. This civilization created the classes—the master and the servant—much more definitely. The more sophisticated the machines of production, the more centralized their coordination and the larger and more capital-intensive their economy, and the greater the gulf between master and servant, rendering, in the process, the individual more helpless.

Speaking of today, Kumar asks:

> Could science and technology, arbiter and abettor of this process, be made to bring about an economy in which individuals as self-employed economic units are related to each other in balanced interdependence, with a symbiotic relationship with

> Nature's bounties? . . . With the new knowledge of the physical and social sciences, this need should be fulfilled.
>
> Of all the countries in the world, India still has the largest number of people, forming 60% of the population, who are nobody's servants nor anybody's masters. We should, therefore, make an asset of our self-employed occupations by supporting, improving, and enhancing them through scientific means.

A feature story in the May *Science for Villages* describes research by the Friends Rural Center in Rasulia (established in 1888 by some English Quakers). They have found that cross-bred cows are more prone to ills and difficult to maintain than pure-bred Indian cows. The native animals give almost as much milk and their care is well within the ordinary farmer's capacity. The writer draws a moral:

> The propaganda for cross-bred cows has tended to reinforce the false and damaging stereotype that all foreign things are superior to their Indian counterparts. Examples of this same stereotype abound in agriculture also: tractors rather than bullocks, Mexican rather than local wheat, chemical fertilizers and pesticides from international companies rather than farmyard manure. The Center feels that the time has come to challenge these stereotypes and experiment boldly with methods relevant to the poor. Workers at Rasulia are now able to do all agricultural work by human and bullock power, and plan to sell the tractor and the heavy machinery that goes with it. They wish to reduce even further the use of fossil energy and machinery in agriculture, e.g. wheat sowing by broadcasting results in tremendous saving of time and energy, and excellent germination. They plan to sow paddy [rice] in the same way during the next season. If it is successful, cost of production will be greatly reduced. They have planted five varieties of wheat, including good local ones, instead of Mexican dwarf alone. These varieties are not only less dependent on irrigation and manure, but are also known to be more nutritive, disease-resistant, and tasty.

A news section in *Science for Villages* reports on a low-cost thresher for both wheat and rice developed in Bangladesh, a windmill built in Japan by a group known as the Association To Generate Electricity by Natural Means, and a copra drier which burns waste coconut husks and can also be used to dry corn, peanuts, rice, and coffee. In cooperation with the Belgian government the Kenyans are growing weeds (*euphorbia*) which are then turned into charcoal briquettes for fuel. This project, it is said, could allow Kenya "to produce its own energy and generate a technology that it could sell to other countries." Thailand has found a way to make charcoal from dried corncobs, burning the cobs in an empty oil drum.

Another feature story tells about the experimental cultivation of Subabul, a tree native to Mexico which does well in hard acidic soil. A fast grower, Subabul is able to provide fuel, fodder, food, and fertilizer. The researchers want to determine the plant's response to agro-climatic conditions in India, and especially in the semi-arid tropical belt extending from north to south in central India. The report says:

> We are passing through the age of crises and the most crucial of them is that of energy. The supply of wood fuel which provides 90% of the energy requirements for one and a half billion people in developing countries, is also seriously threatened. In fact, the firewood shortage is going to be as serious as the petroleum crisis.

This recalls a paragraph by John Quinney in the *New Alchemy Quarterly* for the Winter of 1981-82. He is speaking of the Model Farm project:

> In analyzing the structure and function of New England forests, we have been impressed with the array of goods and services they provide. Forests control erosion, moderate seasonal pulses in hydrologic flows, buffer climatic extremes and provide fuel, food and wildlife habitat. Farms can be designed to provide similar diverse yields. These "agricultural forests" will include elements with multiple functions. Thus poultry not only provide meat and eggs but also contribute to pest control, . . . The forest has become our design model. This is significant because forests are the dominant landscape in New England. Ironically, New England agriculture has always been based on the destruction of forests rather than their preservation or modification.

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R. M. LAW, Mgr.