

WORK

THE transformation of heroes into villains seems to take about three hundred years. It is hardly debatable that the great figures of the seventeenth century—Galileo, Newton, and Descartes—were the principal shapers of the modern mind, and they were certainly the heroes of Western thought and progress until quite recently. Today they are villains; that is, their influence is held responsible for the mechanistic habits of mind in science and psychology, and the view of the universe and man which resulted from their labors is regarded as a primary cause of the exploitive and dehumanizing tendencies of modern civilization.

The books and articles detailing the psychological and moral effects of the mechanistic philosophy are now legion requiring no citation. Lewis Mumford's *Pentagon of Power* is perhaps the best development of this criticism, and the general acceptance of his contentions—its most powerful critical sections first appeared in the *New Yorker*—is persuasive explanation of the change in outlook, now rapidly proceeding.

The central finding of all such analysis is the elimination by externalization of the human qualities of human beings. In *The Tower and the Abyss* (Braziller, 1957), Erich Kahler described how "the scientification and technicalization of our world and of our life brought about that impersonal collective consciousness inherent in our institutions and our techniques, tending to objectify all human relations and make man and all his outer and inner manifestations an object of impassible scrutiny and analysis." Kahler's comment:

The most frightening aspect of our present world is not the horrors in themselves, the atrocities, the technological exterminations, but the one fact at the root of it all: the fading away of any criterion, the disruption of the contents and substrata of human responsibility. There is a fatal correlation, a vicious

circle in which we seem to be caught: Without a human community there is no human responsibility of the individual, and without such responsibility, without true morality in this purely human sense, no human community can maintain itself.

How does this work out in practice? How does it affect people in their everyday lives? Speaking as an artist, designer, and educator, Lazlo Moholy-Nagy provided this answer in *Vision in Motion*:

Irresponsibility prevails everywhere. An advertising artist, for instance, makes a layout for the sale of a product. He is responsible for nothing but his own art, that is, his professional standard. The merchant sells the product which is advertised. But he is not responsible for its possibly inferior contents, as it is already packed before it reaches him. The manufacturer is not responsible either because he only finances the production; the formula comes from the hired staff of a research laboratory trained to produce results which will compete with the products on the market. Altogether, responsibility has been subdivided to the evasiveness of the microscope.

This represents, you could say, the technicalization, which means the demoralization, of responsibility at the professional level. How are these consequences traceable to Galileo and Newton's "world machine"? If we go back to the seventeenth century, to Louis XIV's France, the track of mechanistic influence becomes quite plain. In 1671, less than thirty years after Galileo's death, Colbert, Louis's minister of finance, decided to "reform" the teaching of architecture—the applied art that is parent to much of modern design—by establishing a new school of architecture to change the direction of planning in France. He wanted to take the initiative in design away from the guilds and place it in the hands of Enlightenment intellectuals. Division of labor began in the practice of the parent art with this change, and design according to a human scale—based on the symbolic correspondence between

the human body and the structure of wood or stone—was replaced by the rules of mechanics. In an article, "The Mechanical Body Versus the Divine Body," in the *Journal of Architectural Education* for September, 1975, Alexander Tzonis and Liane Lefaivre describe the far-reaching effects of Colbert's innovation:

Turning its back on the archaic form of training, the Academy offered a form of education which was theoretical. No training for manual work was included in its course. The teaching contained lectures on abstract topics, principles of euclidean rationality and empirical procedures advocated by Galilean mechanics. With the exclusion of practical manual skills, architectural education was to be limited to the learning of principles, plans, examples and application, disassociating the abstract field of pure design from that of labor. At the same time the laborer was exempted from any theoretical activities.

What has been said primarily with regard to the professional, educational and methodological development of the French Royal Academy of Architecture can be generalized as a broader phenomenon, occurring throughout all the states of Europe. Although there might not have existed academies or exact equivalents of the "diploma," it is a fact that in the countries of the so-called advancing bourgeois society, guilds were shut down, archaic methods of design shunned, "academic" courses adopted as the new vehicle for education and a new, rational, empirical methodology and conceptual framework developed and put into practice.

This change amounted to a practical destruction of the guilds. The guildsman not only knew how to build, but he was trained, also, in "the principles that linked architecture to the cosmological order of the world." The empirical approach put an end to this sort of thinking. Designers lost touch with the craft of construction and builders became mere laborers, shut out from theory and understanding.

Here began the process of separation and sub-division which has given "alienation" its present-day meaning, although by a century later Adam Smith, whose *Wealth of Nations* was published in 1776, had seen enough of factory production in England to realize what was likely

to be the result. The man who performs a few simple operations, day after day, "has no occasion," Smith wrote, "to exert his understanding." Such a man was likely to become "as stupid and ignorant as it is possible for a human creature to become." Adam Smith's further comment reveals a point of view which was "enlightened" in his day, yet wholly unaware of the outlook of a deeper humanity which made William Blake write of "dark satanic mills." Of the eighteenth-century factory worker, Smith said:

The torpor of his mind renders him not only incapable of relishing or bearing a part in any rational conversation, but of conceiving any generous or noble, or tender sentiment, and consequently of forming any just judgment concerning many even of the ordinary duties of private life. Of the great and extensive interests of his country he is altogether incapable of judging. . . . But in any improved and civilised society this is the state into which the labouring poor, that is, the great body of the people, must necessarily fall, unless government takes some pains to prevent it.

Yet Adam Smith was so persuaded of the morality of acquisitive self-interest that he was able to call a society which generates such conditions for the majority—"the great body of the people"—"improved and civilized"!

Not quite a century later, a man of deeper concern for the great body of the people, Edward Bellamy, wrote of what he saw in a New England mill town on Decoration Day:

We saw them . . . squalid, bare-headed and bare-footed, ragged and meager, some of them crippled for life either from birth or accident. We almost felt that it were better to be dead than so alive. And where had these boys and girls come from? Out of the mills which had given them a few hours to run about and see the show. Any day at noon you can see them in dingy flocks, hovering along the sidewalks between their boarding place and "the yard." The mere sight of them; so old and worn and miserable to look at, yet so young, is proof enough that a great wrong exists somewhere among us which is inflicting a vast amount of barbarity, a positive cruelty of monstrous proportions upon these children and others like them in New England. This premature labor dwarfs them in size, so that when sixteen or eighteen years old,

they have the diminutive, puny aspect of a scant dozen years. It twists them into little knotted deformities out of which coming years will never untwist them. . . . Half-starved and overworked, cuffed and shoved about as though there were no room for them anywhere, they are considerably more in need than the omnibus and car horses of the protection of a society to prevent cruelty to animals. Ten, eleven, twelve hours a day in our mills, and sixteen to eighteen in other countries, is a heavier burden than any such young shoulders should carry. . . .

Bellamy did not exaggerate. In *Sunrise to Sunset* Samuel Hopkins Adams quotes from a mill broadside posted in the 1830s which announced the earliest opening time of the mill would be 4:15 a.m., and the latest closing, four hours after sunset. A skilled female weaver in those days could earn \$3.50 a week, while a child under ten made about \$1.25. "An intelligent girl of six was considered competent to run a Baxter loom."

No wonder Bellamy became a socialist! No wonder Marx wrote *Das Kapital* and spent his life inflaming European radicals with hatred of the exploiting class!

The crimes of early capitalism, committed with an appalling self-righteousness, are too well known to need further description. The moral principle behind capitalist thinking was the idea of freedom—freedom to pursue wealth, to acquire property, and to conduct profitable enterprise without interference. These were themes developed by John Locke and later given the form of coherent economic philosophy by Adam Smith and his successors. The labor movement which grew up in the nineteenth century, and the revolutionary movement brought to birth by Marx and Engels, did not challenge the basic psychology, the account of human nature in the economic philosophy, but insisted on justice in the distribution of the rewards of economic enterprise. The labor movement sought justice through the bargaining power of the unions, the Marxists wanted control of the political state to enforce it. As Robert Heilbroner put it recently, communism "is not so much the successor to but the *substitute* for capitalism," since it accomplishes for the

backward nations the transformation worked by capitalism in past centuries. In his essay, "The Place of Economics in Societies," Karl Polanyi points out that Marx, in his attack on capitalism, accepted the capitalist view that economic processes are the primary reality of human life. In this sense Marx was a revisionist, not a revolutionist. As Polanyi says:

Capitalist society, Marx argued, was economic society, and therefore it was ruled by the laws governing the economic system, i.e., the laws of the market. Marx, however, failed to emphasize (to put it at the least) that such a state of affairs existed only in capitalist society. The discovery of the importance of "economic" under a market economy induced him to overstress the influence of the economic factor generally, at all times and places. This proved a grave mistake. Although Marx himself insisted on the influence of non-economic factors in history, especially in early history, nevertheless Marxists made a veritable creed of the economic interpretation of history. This amounted to an assertion not only of the predominance of economic factors, but also of economic motives.

The struggles of labor during the nineteenth and the first half of the twentieth centuries were for higher wages, union recognition, and better working conditions. Today the issues are rapidly changing. While wage increases are still an objective, other factors are beginning to assume greater importance. In *All the Livelong Day* (Doubleday, 1975), a book which tells about the monotony of the modern production line and the dull days of workers in canneries, cosmetic plants, lumber mills, and typing pools, Barbara Garson says in her foreword:

I have spent the last two years examining the way people cope with routine and monotonous work. I expected to find resentment, and I found it. I expected to find boredom, and I found it. I expected to find sabotage, and I found it in clever forms that I could never have imagined.

But the most dramatic thing I found was quite the opposite of noncooperation. *People passionately want to work. . . .*

At Lordstown, Ohio, General Motors runs the fastest assembly line in the world, manned by a work

force whose average age is twenty-four. At 101 cars an hour, each young worker has thirty-six seconds to perform his assigned snaps, knocks, twists, or squirts on each passing vehicle.

I visited Lordstown the week before a strike amid union charges of speed-up, company charges of sabotage, and a great deal of national publicity about "the new worker," "the changing work ethic."

While a young Vega worker and his friends argued in the living room about the strike and disciplinary layoffs, I talked to his mother in the kitchen. Someone in the supermarket where she works had said those young kids were "just lazy."

"One thing, Tony is not lazy. He'll take your car apart and put it together any day . . . the slightest knock and he takes care of it. And he never will leave it half done. He even cleans up after himself.

"And I'm not lazy either. I love to cook. But supposing they gave me a job just cracking eggs with bowls moving past on a line. Pretty soon I'd get to a point where I'd wish the next egg was rotten just to spoil their whole cake." . . .

I wasn't particularly surprised by the negative things I saw in factories: speed, heat, humiliation, monotony. I'm sure the reader will have guessed that I began this research prepared to expose and denounce "the system."

It was the positive things I saw that touched me the most. Not that people are beaten down (which they are) but that they almost always pop up. Not that people are bored (which they are) but the ways they find to make it interesting. Not that people hate their work (which they do) but that even so, they try to make something out of it. . . .

The crime of modern industry is not forcing us to work but denying us real work.

At the end of her book Barbara Garson repeats her conclusions, more or less verifying Adam Smith's predictions made two hundred years earlier:

Occasionally a new skill arises, like computer programming. And then a battle ensues in which the employees try to maintain their prestige as skilled workers while the employer tries to reduce the job to its simplest possible components.

Most of the workers I've interviewed have definitely lost that battle. Whether they work in factories or offices, whether their jobs are light or

heavy, they toil like horses wearing blinkers. Their vision of the beginnings and ends of their work is deliberately restricted. With eyes focused in one narrow line they move by putting one foot, one hand, in front of the other.

And they just "blank their minds," as one of lumber mill workers said. This is a policy which makes Frederick Taylor, who wrote *Scientific Management* (Harper & Row, 1947), a complete success. "All possible brain work," Taylor counseled his clients, "should be removed from the shop and centered in the planning or layout department." Colbert, all over again. Well, it works for a while, but as Mrs. Garson says:

The problem for management is that they must simultaneously suppress and yet rely on human judgment. They need human beings and yet they fear human beings. They respond to that fear with an intensified division of labor and increasingly costly supervision. In the end they create jobs that are far too complex for robots, but, on the other hand, far too regimented for chimpanzees. So they are stuck using human beings. That's always a danger. For them there is no final solution, only more and more costly controls. Eternal vigilance is the price of taking away other people's liberty.

And the people resist. When the jobs can no longer be borne, as at Lordstown, or in some other plant, something snaps and the people stop working.

What ought to have been the most decisive discovery of all in relation to the practical effects of a great many of the jobs in modern industry was put into a "maverick" book by Niall Brennan, an Australian who learned that during World War II, when most of Australia's manpower was being drafted into the armed services, the operators of factories there were able to take morons from institutions for the mentally defective and turn them into workers who were actually more satisfactory from an administrative and production point of view than "normal" employees. Brennan concluded that the methods of factory production were ideal for the employment and even the production of morons, and he spent five years of his life working in factories, mills, and stores to

verify this impression for himself. From this experience he found that "work which makes sub-human demands results cumulatively in the narrowing and finally the mutilation of human personality: and also that the continuous half-apprehended sense of frustration avenges itself by strange and disturbing means." His book, *The Making of a Moron* (Sheed & Ward, 1953), attracted little attention, but the facts he revealed seem indisputable. The subnormal girls who worked in the Australian plant of RCA, producing radio and electrical goods, performed so well that their work was judged equal to and in many cases better than work by "normal" girls.

Brennan drew this conclusion:

Most revolutions designed to uplift the underdog have shown only too pathetically how much easier it is to pull down the topdog instead. There is something like the law of gravity in social relations. If equality is all that is aimed at, it is almost invariably achieved on the lower rather than the higher level. And when equality has been established, we must ask on whose level before the celebrations can begin. When morons can be fitted into industry on an immediate parity with the normal employees, the question, on whose level has this equality been achieved, must also be asked. It may be good to discover that in a modern industrial plant there are conventional processes which can be performed by a boy with a mental age of less than eight years, and a severe lack of muscular coordination. But what were the "normal" adults doing in this same process before the crippled and retarded boy came along to do it for them? No really normal person can afford to ignore the frightening implications in the discovery that many "normal" men and women are working in jobs at which subnormals are equally and sometimes more efficient.

What is the responsibility of those who recognize what this means for human beings generally?

REVIEW

A SORT OF ELIXIR

WHAT is the best use of a book like *Speaking for Nature* by Paul Brooks, published in paperback by the Sierra Club for \$8.95? Reading along in this account of the American writers, from Thoreau to Rachel Carson, who have been articulate in celebrating and defending the natural world, we began to feel that the book affords a skillful and inviting portraiture of an "other" America, perhaps the best America that exists or that we may become. It is, then, a tool for cultural education.

What is cultural education? It is the gradual generation of a field of moral and intellectual influence—influence, in Henry Beston's phrase, "on the side of life." The strength of that field lies in patterns of work and behavior, in thinking and activity, which show human beings at their best, providing a "sense of reality" of lives so lived. The individuals involved are men and women who, fairly early in life, embraced ideals and goals which the majority seldom think about, and who then proceed to prove in practice, sometimes very much against the grain of the times, that ideals need not remain remote dreams but can have a practical realization, and they will often set the tone for movements which make the world a better place for everyone.

Is there a keynote for this idea? The one we return to, time and again, is sounded in the concluding passage of Book IX of Plato's *Republic*. There Socrates explains to some young men that the philosopher is one who formulates his conception of what is good and right, and then lives by it, as best he can, no matter what other people do. Socrates insists that the philosopher will put his vision into practice, even though he may be unable to find any city where living according to a vision is common practice. Perhaps, Socrates says, "there is a pattern of it laid up in heaven for him who wishes to contemplate it and so beholding to constitute himself its citizen. But it makes no difference

whether it exists now or ever will come into being. The politics of this city only will be his and of none other."

The people Mr. Brooks tells about in his book belong to this order of humans. They gave animation and form to a social and ecological ideal which gathered strength and application through their efforts. They changed the world, or some part of it, in ways others considered fanciful or impossible. These individuals, or some of them, were themselves quite imperfect. They proved that you don't have to be perfect to do a lot of good. Sometimes they reached far beyond themselves in what they accomplished. In a way, their very imperfections are instructive; however they may have impeded, they did not block the thrust of constructive lives. Bringing out the authentic good in other people is probably the highest form of educational influence, and Mr. Brooks tells dozens of true stories about how this works. The idea of truer America comes out of reading them; it comes out as a living reality in our history—a splendid generalized answer (with numerous individual examples) to the question: What shall I do with my life?

Who are these people? In the back of *Speaking for Nature* the writer lists the Americans he has told about in order to suggest further reading. They start with Thoreau and Emerson. Then come Burroughs and Muir, followed by persons most readers haven't heard of but should know about. Others we have read or reviewed are Frederick Law Olmsted (who designed Central Park in New York), Thomas Wentworth Higginson, Sidney Lanier, George Perkins Marsh, John Wesley Powell, and Louis Agassiz—all nineteenth-century figures. They make the foundation for similar work during our own century—the foundation and the initial architecture. There is no way to get a feeling of how these writers gave objective reality to their ideal America or United States except by reading the book. Here all we can do is offer a metaphor or two for what they did.

One of the first who spoke for nature in the twentieth century was Theodore Roosevelt. He was, you could say, a Manifest Destiny man, and so quite imperfect from our present point of view, but a purely political conception of him is a gross distortion. If you read the long quotations Brooks gives from Roosevelt's writing, and find out his dreams and how he tried to fulfill them, you will be almost certain to decide that we were very lucky to have him for a President, warts (inconsistencies) and all.

In the present century, Henry Fairfield Osborn was an early prominent figure. He was a founder and president of the American Museum of Natural History in New York, making it, as a colleague said, one of the greatest in the world. Brooks says of Osborn:

In preaching conservation, he used arguments and concepts that he shared with men like Muir and Burroughs, and that have since become commonplace, such as the recognition of wilderness values as a part of our culture. "We no longer destroy great works of art . . . but we have yet to attain the state of civilization where the destruction of a glorious work of Nature, whether it be a cliff, a forest, or a species of animal or bird, is regarded with equal abhorrence." As for the cost of conservation, he points out the total investment in animal preservation would be less than the cost of a single battleship, which will soon be obsolete anyway. (So a half-century later the Sierra Club estimated that the cost of an adequate National Redwood Park would be equal to that of three days of highway construction.) . . .

Osborn and Muir—the one a self-assured, somewhat bristly embodiment of the Establishment; the other a wanderer at home only in the wilderness—enjoyed a relationship as happy as that of the cactus with the cactus wren. Not the least of Osborn's contributions to the literature of conservation was his kindness in providing Muir in his later, productive years with ideal writing conditions in a cottage on the Osborn estate at Garrison-on-Hudson. Here, during the summer of 1911, Muir (then seventy-three) struggled to finish both his autobiography and his book on Yosemite before leaving for the Amazon. . . .

Osborn's museum (for that is the way his staff thought of it) has nourished a variety of scientists

who, as Theodore Roosevelt put it, can take the facts of science and make them into literature. And who can guess how many of the millions of children who have swarmed through its halls got there a first glimpse of man's place in the great chain of life? As Robert Cushman Murphy, a former curator of birds, has written, "(Osborn) carried many profound discoveries of a scientific epoch into homes and schools throughout the world, changing 'dinosaur' from a high-brow to a household word and making Mesozoic dragons almost as familiar to children as the creatures of Noah's Ark. . . ." Some of those children would grow up to be scientists themselves. Countless others would, as Osborn hoped, learn to recognize the works of nature as no less precious and worth preserving than the works of man.

Whatever the impressions gained by children of "man's place" in natural history from the sculptures of his supposed apish "ancestors" displayed in the Museum, Osborn's contributions to anthropology are on the other side of the ledger. He was one of the first to push the antiquity of man back to millions of years ago, and in his classic article in *Science* for May 20, 1927, he showed that long ago the anthropoids and the proto-humans were pursuing separate and distinct lines of evolution.

A large part of the charm of this book lies in accounts of the friendships of the campaigners for conservation, and of the natural divisions of labor among them, according to capacity and concern. What comes out above all is the personal influence they had on each other, the mutual support, along with sometimes extreme differences of opinion. The real strength of the conservation movement, it seems clear, grows out of human conviction, born, no one knows exactly how or why, in rare individuals. The organizations formed as a result of their efforts have had their place in accomplishing the reforms of the past century or so, in the form of legislation, yet without the support of a constituency enlightened by the fiery appeals, reasoned arguments, and inspired response to the wonders, beauties, the extraordinary interdependencies found in nature, little progress would have been made. It is as though readers had each adopted a personal

version of Thoreau's credo, set down in his journal: "I should like to keep some book of natural history always by me as a sort of elixir, the reading of which would restore the tone of my system and secure me true and cheerful views of life." From Mr. Brooks' book one gets a feeling of the tangible reality of the gradual emergence of an actual alliance devoted to the welfare of the community of life and to a human community resolved to live in understanding and harmony of life.

The scores and even hundreds of writers who provide his subject-matter have, Mr. Brooks says, "played two roles, which in practice frequently overlap."

One is essentially tactical: the creation of an informed public to confront a clear and present danger (as Rachel Carson did with *Silent Spring*) or, more frequently, to save some specific area from destruction. In so doing they are challenging what might be called the myth of the expert: the assumption that technical science matters, whether they involve private enterprise or government, lie beyond the grasp of ordinary citizens and had better be left to the professionals. The other role may be seen as strategic, in the broadest sense of that term. Our greatest nature writers have not necessarily been consciously promulgating any special doctrine or arguing on behalf of any specific cause. But in expressing their profound joy in nature—their observations, their experiences, their insights—they have sharpened our perception of what is at stake and strengthened our resolve to fight for its survival.

For many years an editor with Houghton Mifflin, Paul Brooks has served the cause of conservation throughout his life.

COMMENTARY

A MATTER OF RESPONSIBILITY

THE considered opinion of Adam Smith was that the typical factory worker, who performs a few simple operations, day after day, is likely to become "as stupid and ignorant as it is possible for a human creature to become." And "Of the great and extensive interests of his country he is altogether incapable of judging." (See page 2.)

If we mourn the quality of contemporary politics, the misfortune of our foreign policy, the routine jingoism which defends it, and the unimaginative character of the familiar doctrines of industrial progress, we can largely blame ourselves for not listening to Adam Smith more closely. If he is quoted today, someone may say that industry is much more humanly intelligent today than it was in the eighteenth century, but then have a look at the two books we quote in the lead article—Niall Brennan's *The Making of a Moron*, and Barbara Garson's *All the Livelong Day* (1975). The latter work came out two hundred years after Adam Smith's *Wealth of Nations*, and what Mrs. Garson saw on the assembly line at Lordstown shows that the cultural influence of the industrial mode of production has not substantially changed.

Are we, as yet, capable of feeling responsible for the kind of work that other people are obliged to do? If we are beginning to feel such a responsibility, what can we, as perhaps ourselves some sort of wage slaves, do about that? Well, we can begin to be more careful from whom we buy, giving our economic support to suppliers who have something of a community spirit. For a useful generalization, this means buying locally, patronizing small farmers and craftsmen whenever we can, and can afford it. It means adopting the do-it-yourself principle wherever practicable. Ralph Borsodi's *Flight from the City* is filled with instruction on how much a family can do on its own, and what is accomplished in this way. The less external organization there is of people's lives,

the more effective their lives, the more resourceful they are, and the better qualified to live in a democracy. Until the work people do is a training-ground for practical human decision, they are hardly qualified for self-government.

Life is a time of character-formation. When we recognize this, and begin to shape our lives accordingly, a great many problems will dissolve, and we'll be able to cope with those that remain.

CHILDREN ... and Ourselves

MAKING GOOD THINGS HAPPEN

A GOOD thing for all young people to know about is the Honorary Alternative Nobel Prize—an award conceived by the Swedish journalist, Jakob von Uexkull, and first made a reality in 1980 with the prize going to the Egyptian architect, Hassan Fathy (who died earlier this year), for his work in restoring traditional ways of building with mud brick. To the architect who kept insisting on modern Western construction he said: "What you are doing is murder, because you are killing the children of Egypt. In a mud brick house in 24 hours there are hardly any temperature variations at all, but under a corrugated iron roof it gets so hot during the day, hotter than outside, that the children and babies die from the heat."

We found this report in an interview by Satish Kumar with Jakob von Uexkull in *Resurgence* for January-February of this year. Kumar, the *Resurgence* editor, asked Uexkull why he called the award the "alternative Nobel Prize," and the journalist answered:

The Nobel Prize is regarded as the summit of recognition. It symbolizes the present system of awards and honors. As I am Swedish, I saw that there was a need for an alternative to the Nobel Prize, because I see the irresponsibility and irrelevance of some of the knowledge and some of the people who have received the award in recent years. The alternative Nobel Prize is an attempt to get a value debate going. We need to show a different value system. Our choice of people given awards will clearly show that. Although this Award has become known as the Alternative Nobel Prize, its official name is the Right Livelihood Award. Right Livelihood of course is an old concept, it means taking responsibility even in the way we choose our livelihood. Living lightly on the earth; not taking more than our share of the earth's resources. This Award is presented in Stockholm, the day before the Nobel Prize Awards, which is why the media have named it the Alternative Nobel Prize.

This year the Award went to Leopold Kohr, Austrian economist, author of *Development without Aid, The Over-Developed Nations, The Breakdown of Nations*, and the utterly delightful but hardly known *City of Man* (published by the University of

Puerto Rico in 1976). The reason given by von Uexkull for honoring Kohr is that his "writings on the functions of small units has inspired a whole new movement."

He is one of the most important theoreticians and the grandfather of the Small is Beautiful movement. (E. F. Schumacher called him "a friend and teacher from whom I have learned more than from anyone else.") It's astounding how widely recognized this has now become. The person who nominated him for the award was a former Senior Policy Advisor in the White House in Washington. One theme of this year's award is that small autonomous units can and do work. The main problem we have today is that the institutions and work units are so large that nobody can foresee the consequences of what they are doing and therefore you cannot even ask the right questions and therefore you cannot get any sensible answers. . . . One more exciting aspect of Kohr's work is what he wrote on the overdeveloped nations. The concept of overdevelopment is totally alien to us. People think only of underdevelopment and that everybody must become developed. But Kohr is the man who has shown that we might have too much of development.

In 1981 three people received awards: Bill Mollison, founder of Permaculture; Patrick Van Rensburg, an exiled South African who, working in Botswana and Zimbabwe, devised an education system which benefitted the majority of people; and, third, the workers at the Lucas Aerospace factory in Great Britain, represented by Mike Cooley.

Here you have workers of a multinational corporation with seventeen different factories and thirteen different trade unions who got together, formed a committee in their own spare time and drew up a plan for this company, which survived mainly on military production, to change from military to socially useful production. The workers came up with a detailed list of 150 different products the company could produce and still remain profitable.

The company rejected the plan, but others are now making some of these products.

In 1982 awards went to Petra Kelly in recognition of the link of the Green Party in Germany with the peace movement; to a group working in Sri Lanka to help the farmers to set up cooperatives—called PIDA, the Participatory Institute for Development Alternatives, neither Marxist nor capitalist. A third award went to Anwar Fazal, a Malaysian who "set up the most successful

consumers group in the Third World," including a "global citizen alert network to alert people about hazardous waste products being exported from one country to another." The fourth winner of a 1989 award was Sir George Trevelyan, for establishing the Wrekin Trust which is devoted to bringing doctors and scientists and mystical thinkers together to "develop a new common vision, a new world view, a more holistic world view than the very reductionist and separate vision we have at the moment."

The recipient in 1983 was Eric Dammann, a Norwegian "who lived in Samoa and came back and set up a movement ("The Future is in our Hands") which aspires to help the Norwegians to reduce their consumption habits and material standard of living and channel the surplus to the Third World by linking directly with self-help projects there."

Award winners besides Leopold Kohr in 1984 were Amory and Hunter Lovins, for their persuasive demonstrations of the advantages of the renewable, decentralized, soft energy path, as opposed to nuclear. "Their statistics have often been challenged but nobody has been able to disprove them." Another recipient this year was Manfred Max-Neef, a "barefoot economist" in Chile who "left his academic career to go out into the jungles and small communities of Latin America and work among the victims of the growth of urban slums," to revitalize small communities. Another of this year's winners is High Chief Ibedul of the Palau Islands in the Pacific, where the people are said to have a religion "very close to nature" and a sense of the holiness of "everything in nature." Some years ago the Japanese wanted to use the Islands as a dump for nuclear waste and the United States thought this Territory would make a good site for a military base. High Chief Ibedul helped his countrymen to draw up their own constitution "declaring Palau to be nuclear free and banning the import or transit of nuclear, chemical, bacteriological weapons or nuclear waste." Against U.S. opposition, the Palauans voted to keep this Constitution, and the award money will be used to strengthen their case in negotiating with the U.S. government.

The total prize money each year, von Uexkull explained, is about £30,000. It is usually divided

among several recipients to show that "projects and people seemingly separate are in fact part of the same vision, part of the same struggle."

As far as the amount of money is concerned for the alternative groups, in the Third World especially, even £10,000 is quite a lot of money. To somebody like Bill Mollison who has lived with the Aborigines on £35 a month, having £10,000 can be of great help. Also the publicity which the award gives helps them to get other funding.

A large part of the money, he said, comes from the sale of rare stamps in von Uexkull's collection, and there are donations and grants to the Right Livelihood Foundation from other sources. Asked how he got the idea of an alternative Nobel Prize, he said that while there was much talk about "new alternatives and new vision," not much was actually happening in the way of change.

. . . I saw that the mainstream society was breaking down all over the place and what was really needed was to bring out these alternatives, these new realities, these practical and multipliable solutions. There are so many good people doing very good work but nobody knows about them. I thought, in order to do this, we must recognize, honour and reward these people. We must create our own system of honours and rewards.

Other articles in the January-February *Resurgence* are of equal interest and value—two or three discussions of the West German Green Party, on its origins and goals and diverse membership, a splendid "Letter from America" by Kirkpatrick Sales, mostly about the work of the Neighborhood Open Space Coalition which makes gardens and parks out of waste land in the devastated South Bronx in New York City, planting trees and operating farmers' markets. (Back issues of *Resurgence* are available at \$3.00 from Subscription Department, Worthyvale Manor Farm, Camelford, Cornwall, PL32 9TT, U.K.)

FRONTIERS

Stories from America and Bangladesh

THE mood of the opening editorial in a late 1983 issue of *Small Farmer's Journal* (issued quarterly from 3890 Stewart St., Eugene, Oregon—\$12.50 a year) captures attention here. The writer, Lynn Miller, who admits to being thirty-six years old and to having dreamed of having his own farm since he was five years old, begins:

There are many readers of this magazine who do not live with cows or ducks or rows of vegetables or fruit orchards or chickens or work horses. They live with the "someday" dream of those things. I feel a strong empathy with these dreamers. I know, first-hand, the pervasive wonder that comes with their imaginings. A wonder that includes "what if's," "if only's," and "will it ever's." A wonder that elates and depresses, but most of all persists. The dream, out of necessity, leads to practical questioning. And at that point the strength and character of the dream becomes threatened. It doesn't need to be.

The rest of the piece might be titled "The Making of an Editor." Miller got an education and was working as an art instructor, but the dream took more and more possession of him.

It engulfed me. In any spare moment I did things to feed the dream. I was always drawing little sketches of barns sheds and farm houses. I drew plot maps of farm field plans with everything figured in, including where the rhubarb went. I read books, asked careful dumb questions and waited. The waiting was eased by vegetable gardening and chickens. I was attending college by day, bartending for a living at night and growing a garden and a dream all during my dream.

Well, he finally rented a 25-acre farm while working for his degree and got his feet wet and his hands dirty. While he doesn't now own a farm—the duties of an editor claim too much time—he lives on one and has some horses and cows. The readers of *Small Farmer's Journal*—judging from the Letters page—are like-minded people, with a warm-hearted, tough-minded enthusiasm for their life. The articles and illustrations (magnificent photos of draft horses and farm scenes, plus well-done woodcuts)

generate a strong sympathy for and interest in farm life in America—even the one about what to feed a pregnant mare has its fascination—and you can tell from how the writers talk that the farms they describe are going concerns. A letter from Wendell Berry, who raises Belgian mares when he isn't at the typewriter, endorses this view, saying in a letter to the editor:

We must assume, I suppose, that apologists for industrial agriculture will continue their opposition to the use of draft animals on farms. They have, however, one unshakable fact to contend with: draft horses and mules continue to be used, conservatively and profitably, on American farms.

This brings to mind an article by Bob Orskov, an agricultural specialist at the Rowett Research Institute (Aberdeen), in *New Scientist* (Jan. 19, 1984), on farming in Bangladesh, and how replacing bullocks and cows with tractors has impoverished small farmers. Real aid, he shows, would not radically change traditional methods of farming with draft animals but would "upgrade the established systems rather than disrupting them." Moreover, introducing European breeds of cattle can lead to disaster. Researchers now know that European cattle cannot live on the coarse forage available in Bangladesh—their stomachs aren't big enough to digest it—while Bangladesh cattle and buffaloes with much larger gut content "can consume larger amounts of poor quality roughage . . . and appear to be able to gain weight, albeit slowly, and give a small amount of milk on feeds on which most European cattle would starve." The right way to help, Orskov says, is to develop methods of treating the coarse roughage (rice straw, etc.) with urea (from animal urine), which makes the straw "30 to 40 per cent more digestible." In Bangladesh there is no land available for growing better fodder crops, nor is it likely to become available. The goal is to make existing systems more efficient. The author summarizes:

Step one is to find out how the traditional system works—and then upgrade it. In Asia, cattle are for power (1) as well as for milk. Straw becomes good feed if laced with urea (2). Overall the aim is to

make better uses of wastes (3). Animal excrete is still used for fuel—but is fermented for biogas, and not simply burnt; so a nitrogen-rich slurry remains that can nourish fish in ponds. Urea upgrades straw; and cows, which give milk, may replace bullocks for draught.

Dr. Orskov ends on a critical note:

Developments of [this] kind, which emphasize exploiting resources and participation by village farmers, are cheap. Indeed they are often too cheap for large aid agencies to contemplate; aid is more often channelled into large engineering projects whose final effect may deprive the poor even further. . . . It is a sobering thought that the thousands of tons of milk powder sold or given as aid to Bangladesh could probably be replaced by a much lower quantity of appropriate protein for the protein-deficient animals, allowing them to supply all the milk required with added benefits to economic activity.

Efficient use of local resources must also include the human resource. Labor-saving technologies are more often than not inappropriate. Thus unwanted surpluses such as milk powder, given as aid, are often sold in competition with locally produced milk, which depresses the local economy. Such "aid" may be of more benefit to the producers of the donor country than to the recipients, and is often of little lasting benefit to the poor.

Thinking of this sort is gaining strength in dozens of ways. Some day, one hopes, it will take the place of the endless debate about GNP and inflation, and the threat of nuclear war, engaging the interest and attention of more and more people who long for a restoration of community life. Two catalogs illustrate the resources of this trend. One is *Books by Post—Intermediate Technology* 1984, issued by a division of the group which E.F. Schumacher founded thirty years ago—Intermediate Technology Publications, 9 King Street, London WC2E U.K. Listed are many books for use in both developing and industrialized countries—works on general economic policy, agriculture, water, fish culture, construction, cooperatives, and numerous books on alternative sources of energy. Schumacher's books are of course included, and related books by his associates in the Intermediate Technology Development Group in London. The vigor of the

ITDG publishing program is impressive and encouraging, showing the diverse strengths of this movement for constructive change. The other catalog is *Bountiful Gardens*, published by Ecology Action (2225 El Camino Real, Palo Alto, Calif. 94306), containing much useful information on gardening, where to get seeds, methods of growing vegetables, and tools for the gardener. The catalogs of ITDG and Ecology Action are both a dollar.