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THE COUNTRY—NOW AND TOMORROW

AS all of us know—those, that is, who reluctantly read the newspapers, and disgustedly put them down—we live in worsening times. The news is almost all bad, whether about foreign affairs, domestic corruption, or financial disaster. *Organized* bad news is more useful—if that is the word—than the random collection provided by the papers, each item apparently independent of all the others, since getting it in generalized form saves the reader's time and brings various reports into a single focus. For this sort of material we usually wait for the *Washington Spectator,* which comes out every week, and in which Tristram Coffin, the writer and editor, weaves a variety of reports into perturbing unity.

For example, the last June 1 issue starts out with the fact that retail stores around the country, not doing enough business, are selling out and closing. Then comes a generalization:

> This is a symptom of the hangover from a giant spending spree, most of it on the cuff and unproductive. The U.S. Government squandered billions of dollars and scientific talent on military junk and frippery. (Military bands cost more than the appropriation for the Peace Corps, which brings hope to despairing Third World people.) Industry instead of investing in new technology, gobbled up smaller companies. Consumers bought color TV sets, many of them Japanese made. Japan was able to leap into our markets because U.S. technological talent went to the military and its contractors. Banks, licking their lips at high interest rates, made loans recklessly.
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> Now the time has come to pay the piper. . . .
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> Two thousand family farms are foreclosed every week. . . . Farm "failures are due to high interest rates, falling land values, expansionist government incentives in the early 1970s, and pricing policies set by the government and multinational buyers." (*Quaker Service Bulletin.*)

Coffin quotes from Allan Meltzer, economist on the *Washington Post:*

> The U.S. today is a country with a chronic debt problem and the unpleasant Third World options of inflation or austerity are precisely what we face in the next decade.
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> America's main economic problem is that as a nation we consume too much relative to what we produce. The government spends mainly for consumption . . . and very little on investment. Privately, the share of spending for consumption remains near the highest rate we have experienced while net investment remains at a very low rate.
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> To maintain spending in excess of production, we sell assets and borrow abroad.

Now comes another generalization by Coffin:

> The truth is that the U.S. economy is at a flash point. Any untoward event, such as default on debts owed U.S. banks by foreign nations, could plunge the economy into real trouble. Or we could edge through crisis after crisis until some sort of stability is reached.
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> A time-honored remedy for an ailing economy—the lowering of interest rates to spur fresh buying—is not in the cards. If interest rates go down, foreign buyers of U.S. bonds will take their money elsewhere, and we will be stuck with our $2.3 trillion government debt and no money in the till.

Meanwhile we buy more than we sell, and more than we can pay for. Says Coffin:

> So we have a staggering $170 billion trade deficit. It is the difference between the money received for our exports and what we pay for a growing list of imported goods.
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> Economist Allan Meltzer writes: "America's main economic problem is that as a nation we consume too much relative to what we produce. . . . In the past four years, we have borrowed so much that, instead of owning net foreign assets of nearly $140 billion, as at the end of 1981, we had net foreign debts of more than $200 billion at the end of 1986., . . . By the end of the decade, we will owe foreigners between $600 and $900 billion. In just four years, we have wiped out the net accumulation of several generations." (*Washington Post.*)

Coffin adds: "The debt accrued under President Reagan is more than under all previous Presidents combined." He quotes from the Union of Concerned Scientists, which has said that the debt is "primarily due to the unprecedented peacetime military buildup—a more than doubling of defense expenditures . . . and a large tax decrease to corporations."

Finally, Coffin says:

> Overall in the banking picture, more than 10% of the U.S. banks are on the "troubled list" of the Federal Deposit Insurance Corp. This means that they require extra supervision because of so many loans that may not be repaid. This list includes 37 banks with assets of $500 million or more. Bank failures last year numbered 160, compared to 10 in 1982. More than 1,000 saving and loans have failed in the past five years, and an estimated 250 may shut their doors this year.

These are some of the effects of our central economic problem, which is debt. Coffin says: "The total domestic debt load is $8 trillion, 27% is Federal debt and the remainder is split among consumers, corporations and state/local governments." And according to the Aden Analysis Report, in 1960 the average debt per person was $3,347; in 1986, it was about $30,125.

What are we, the people, going to do about all this? The answer is nothing, because there is nothing that we *can* do, except read the papers and groan. That is, there is nothing that we can think of to do. Yet there are still ways of behaving that would make an entirely different pattern for our own lives—which, if enough people adopt them, would eventually make the foundation for a more natural community life that would give no place to the economic nightmares reported by T'ristram Coffin. In short there *are* things to do—hard to find, perhaps, but within reach of an active imagination. We are thinking, here, of the contents of the Spring 1987 *Land Report*, published three times a year by the Land Institute, 2440 East Water Well Road, Salina, Kansas, 67401. The founders of the Institute are Wes and Dana Jackson, whose goal is to discover and make known the practical means to sustain able agriculture. They have ten interns or apprentices who work with them (and are paid a subsistence wage). Their achievements are regularly recorded in the annual *Land Report Research Supplement* written by the interns and the staff. The articles in *Land Report* may include reports of this research, but just as likely will be a musing study of Thoreau or a piece which quotes Aldo Leopold and has the inspiration of his vision. In the Spring *Land Report*, for example, Dana Jackson writes about the evolution of a land ethic, quoting from Leopold, who said (in *A Sand County Almanac*): "Land, then, is not merely soil: it is a fountain of energy flowing through a circuit of soils, plants and animals." Dana Jackson goes on:

> In searching for a way to help people connect more responsibly to land, he used the expression "land community." With this human, sociological image in mind, he defined conservation as "a state of harmony between men and land." To have this harmony, humans must stop defining land solely in economic terms. The evolution of a land ethic depends upon making decisions about land use based on whether an action tends "to preserve the integrity, stability, and beauty of the biotic community." . . .
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> . . . How did we define land when this country was new and possessed an enormous frontier? What did our concept of citizenship bequeath to us and require of us? What new visions of land *and* citizenship do we need in order to continue inhabiting this section of earth called the United States?

In addition to the research and experiments carried on by the Land Institute, these are questions which have consideration in the studies there. In an article, "The Land Needs People," Wes Jackson says:

> If we are to place agriculture back on its biological feet in order to meet the expectations of the land and the bona fide needs of people, I believe we must help the farmers who are still on the land and who want to remain on the land to stay. Once we have reversed the exodus from the countryside, we need to make it possible for even more people to return to the land and to our rural communities.

There are two main reasons for having a high rural population: first of all, *the land needs lots of people,* and secondly, of equal importance, *the culture needs a large and strong rural population.*

The reason the land needs lots of people is that if the productive capacity of the land is to survive, farming cannot be an industry or even an ordinary business. Farmers are working with that which is potentially renewable and life-sustaining, while industry is dependent on a completely extractive economy. Most of the rules for the renewable economy are of a fundamentally different order from the rules of the extractive economy. Since sustainable farming falls outside the realm of industry, land is not a resource in the sense that chrome or oil or rock phosphate are resources. When the non-renewables are gone, if we have properly cared for the land, it can still sustain our civilization. If we are to begin to move farming away from the category of industry (again, not all at once), we will need to work toward what I have called elsewhere, a high-eyes-to-acres ratio. By this I mean we will need lots of people watching and working the land. Equipment will have to be scaled downward to accommodate the natural fertility of the land, its soil structure, rainfall patterns, contours and slopes. . . .

The land will need lots of people because the land will need lots of thought applied. Optimum crop rotation schemes will have to be worked out so that insects, pathogens and weeds can be controlled or managed and so that nitrogen fertility can be restored through biological means rather than by using gas as a feed stock for nitrogen fertilizer. None of these goals can happen soon, but as a matter of ordinary prudence, we can begin to work on a different trend.

I realize that what I propose may run counter to current economic considerations because the time required to work our fields has been reduced through the use of the industrial world: tractors, combines, pesticides, fertilizers and so forth. But while we have been saving time, insufficient attention has been paid to the fact that this time savings in our fields has resulted in serious ecological costs, most notably soil erosion and polluted soil and groundwater. . . . Maybe we could not have known in the past that the lens of economics is too flat, but we know it now and are beginning to learn that this loss of people from the land is more a failure than anything else.

A review article by an intern, Jess Ennis, examines critically the recent achievements and failures of agriculture in Mexico. "Decades of substantial growth," Ennis says, "have left the majority of Mexicans behind."

The cruel irony in the countryside is that nearly 90% of rural Mexicans, the traditional food producers, suffer from calorie and protein deficiency. It is hardly any wonder that these people are migrating to Mexico City at a rate of 1,000 arrivals per day.

But how can this be in a country that for many years exhibited one of the world's highest rates of agricultural growth? To answer that, one must look closely at the nature of that growth and examine the historical development of Mexican agriculture.

There are actually two agricultures in Mexico. There is the highly mechanized, capital-intensive, "modern" agriculture that produces export crops and accounts for the majority of the country's irrigated farmland. In sharp contrast is the agriculture of peasant farmers who operate in rain-dependent areas and produce mainly crops for their own subsistence, along with some surplus for the domestic market.

It was chiefly the Mexican government's economic and agricultural development strategy, along with the technological innovations developed and introduced in Mexico by the Rockefeller Foundation that molded Mexican agriculture into this classic bimodal system. Since the 1940s, Mexican government policy has been to follow the path of the world's rich countries and industrialize. The Aleman administration (1946-52) embarked on a program of import-substituting industrialization and designed various government measures to promote domestic manufacturing of consumer goods and replace imports.

The idea was through industrialization of agriculture to provide cheap food for the people in urban areas, so that wages could be lowered, and second, to earn foreign exchange by exporting farm products. The Rockefeller Foundation sent our agricultural specialists to Mexico, where they introduced high yield varieties of grain (known as HYV's). But—

The scientists developed these so-called "improved varieties" under highly controlled growing conditions in which water, synthetic fertilizers, and pesticides were applied as they saw fit. Thus, the HYV's were best suited to irrigated areas where stress from drought is not a problem and to growers who could afford chemical inputs. Unfortunately the

> scientists failed to consider the agroclimatic conditions and practices in areas without irrigation when they bred the new varieties. Under stressful conditions, the HYV's are usually not high-yielding at all, but in fact suffer more severely than traditional varieties.

So, as Ennis says, "the public investment and research, and the resulting growth in agriculture were not evenly distributed among Mexico's producers."

> Although roughly 90% of all public investment in agriculture was devoted to irrigation development between 1940 and 1965, 87% of Mexico's farmers had no access to irrigation by 1982 ... Perhaps it is not surprising that the commercial sector has developed to such an extent that, by 1975, large commercial farms, comprising a little more than 3% of the total number of farms in Mexico, actually produced 81% of the country's agricultural output.

Reflecting, Ennis says:

> First of all, it is probably not rational for a peasant family to adopt "Green Revolution," yield-increasing technology. Technological packages including seed and chemical fertilizers are better suited to irrigated areas. Given the proper amounts of water and nutrients, the improved seed varieties developed by the Rockefeller Foundation do outperform the local varieties raised in the same manner. During dry conditions, however, the performance of "improved varieties" drops drastically, and locally adopted varieties suffer less. Thus technologies with profound sensitivity to drought are far riskier for farmers who rely on erratic rainfall than for those who have irrigation. Crop failures for subsistence growers are likely to cut right into their food consumption, which may already be inadequate.
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> If Mexico is a typical example, as it appears to be in many ways, then developing, promoting, and subsidizing Western-style, "modern" agriculture in the Third World is probably an ill-advised strategy. Instead, greater attention could first be devoted to answering the question, "How is farming done there now?"

We go from this rather gentle conclusion to the fundamental research program carried on at the Land Institute. The goal is "uncovering principles of an ecologically sound agriculture and of contributing to a sustainable agriculture for the Great Plains prairie region." Peter Kulakow, a member of the staff, describes the present program as including study of the breeding and genetics of perennial sorghum, the patterns of seed yield in three herbacious perennials, a survey of insects in the prairie region, study of a perennial polyculture, the effects of plant disease on growth, and several related problems. The emphasis on perennials represents the basic theme of research, since the development of a food grain produced by perennial plants would require much less plowing and thus save the soil from erosion. Going into some detail, Kulakow says:

> Among our more ecologically oriented projects, several plantings at The Land have been established long enough for us to begin observing patterns of seed production over several years. This year we will harvest stands of Illinois bundleflower and maximilian sunflower for the third year. . . . Studies on the productivity and composition of the prairie will continue for the second year in an expanded form. . . . Each ag intern has selected an experiment to follow closely during the term [February through December]. At the season's end, the results will be presented in our annual *Research Supplement.*

It should be evident that the students and workers at the Land Institute are carrying on an enterprise in behalf of America and all the world. As the conditions described by quotation in the beginning of this discussion grow worse—and they can hardly do anything else—the positive engagements of people like the Jacksons, who already exist in various parts of the country, may well become the foundations not only of tomorrow's agriculture, but of the civilization of the future.

At issue is our fundamental relation with the earth—the earth, our planet, where we have since the beginning enjoyed the hospitality of a great range of intelligences which altogether constitute the very beinghood of the larger entity which supplies us with our bodies, our food, and the atmosphere which we breathe. Out of our enjoyment of these gifts natural obligations grow. The true agriculturists give these obligations definition.

REVIEW
"DISCIPLINE AND HOPE"

THE essay is a literary form which provides both affirmation and criticism. The best essayists of the recent past have been writers like Joseph Wood Krutch and Lewis Mumford. In the present, to our way of thinking, the best essayist is Wendell Berry. His work will bear and needs reading more than once. In 1981 he made a selection of essays from five previous collections and these were published by North Point Press with the title *Recollected Essays* 1965-1980. The longest among them was called "Discipline and Hope," in which we have been reading lately. From it we take a text that may serve, with other material, for the basis of review.

> The political condition in this country now is one in which the means or the disciplines necessary to the achievement of professed ends have been devalued or corrupted or abandoned altogether. We are offered peace without forebearance or love, security without effort and without standards, freedoms without risk or responsibility, abundance without thrift. We are asked repeatedly by our elected officials to console ourselves with that most degenerate of political arguments: though we are not doing as well as we might, we could do worse, and we are doing better than some.

This evaluation of our political condition seems entirely just, as comments by others made much more recently will confirm. For example, the executive editor of the *Washington Post*, Ben Bradlee, drawing on a book by an American admiral, revealed that the famous Battle of Tonkin Gulf never happened—it was a total fabrication by our military and political leaders. It led directly to the Tonkin Gulf Resolution, which was, as Bradlee put it, "the entire justification for the United States war against Vietnam." The facts behind this important resolution were simply "lies." (For the facts see Admiral Jim Stockdale's recent book, *In Love and War*.)

Berry finds the cause of such policies in "indiscipline," going on to say:

> But this political indiscipline is exemplary of a condition that is widespread and deeply rooted in almost all aspects of our life. Nearly all the old standards, which implied and required rigorous disciplines, have now been replaced by a new standard of efficiency, which requires not discipline, not a mastery of means, but rather a carelessness of means, a relentless subjection of means to immediate ends. The standard of efficiency displaces and destroys the standards of quality because, by definition, it cannot even consider them. Instead of asking a man what he can do well, it asks him what he can do fast and cheap. Instead of asking the farmer to practice the best husbandry, to be a good steward and trustee of his land and his art, it puts irresistible pressures on him to produce more and more food and fiber more and more cheaply, thereby destroying the health of the land, the best traditions of husbandry, and the farm population itself. And so when we examine the principle of efficiency as we now practice it, we see that it is not really efficient at all. As we use the word, efficiency means no such thing, or it means short-term temporary efficiency; which is a contradiction in terms. It means cheapness at any price. It means hurrying to nowhere. It means the profligate waste of humanity and of nature. It means the greatest profit to the greatest liar. What we have called efficiency has produced among us, and to our incalculable cost, such unprecedented monuments of destructiveness and waste as the strip-mining industry, the Pentagon, the federal bureaucracy, and the family car.
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> Real efficiency is something entirely different. It is neither cheap (in terms of skill and labor) nor fast. Real efficiency is long-term efficiency. It is to be found in means that are in keeping with and preserving of their ends, in methods of production that preserve the sources of production, in workmanship that is durable and of high quality. In this age of planned obsolescence, frivolous horsepower and surplus manpower, those salesmen and politicians who talk about efficiency are talking, in reality, about spiritual and biological death.

To whom is Berry speaking? We could of course say, to us all, but it might be more accurate to say that he is speaking to the members of the Saving Remnant, wherever they may be found, for it is always they who help to make the beginning of change for the better. The problem for a writer like Berry is to find a way to reach them. He may be actually reaching a great many of them, since good publishers have found that his books sell. He has a real audience, and let us be thankful for that.

From his critique of the popular meaning of efficiency he turns to a modern vice of technology:

> Specialization, a result of our nearly exclusive concern with the form of exploitation that we call efficiency, has in its turn become a destructive force. Carried to the extent to which we have carried it, it is both socially and ecologically destructive. That specialization has vastly increased our knowledge, as its

> defenders claim, cannot be disputed. But I think that one might reasonably dispute the underlying assumption that knowledge per se, undisciplined knowledge, is good. For while specialization has increased knowledge, it has fragmented it, and this fragmentation of knowledge has become accompanied by a fragmentation of discipline. That is, specialization has tended to draw the specialist toward the discipline that will lead to new facets of processes within a narrowly defined area, and it has tended to lead him away from or distract him from those disciplines by which he might consider the *effects* of his discovery upon human society or upon the world.

Berry is valuable because he is getting at the *causes* of the present condition of the world. For those interested in an account of the effects he speaks of, the series of annual reports, *The State of the World,* by the Worldwatch Institute, would be good reading. But Berry links those effects with the attitudes of mind that have produced them, bringing a kind of understanding that is required for any lasting change to take place.

After a section on agriculture, the area of human undertaking in which he works, pointing to the disaster to which our current practice leads, he turns to our own early history:

> White American tradition, so far as I know, contains only one coherent social vision that takes such matters into consideration; and that is Thomas Jefferson's. Jefferson's public reputation seems to have dwindled to that of Founding Father and advocate of liberty, author of several documents and actions that have been enshrined and forgotten. But in his thinking democracy was not an ideal that stood alone. He saw that it would have to be secured by vigorous disciplines or its public offices would become merely the hunting grounds of mediocrity and venality. And so those who associate his name only with his political utterances miss both the breadth and the depth of his wisdom. . . . Jefferson wrote that farmers "are tied to their country, and wedded to its liberty and interests, by the most lasting bonds." And: ". . . legislators cannot invent too many devices for subdividing property . . ." And: ". . . it is not too soon to provide by every possible means that as few as possible shall be without a little portion of land. The small landholders are the most precious part of a state." . . .
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> On September 10, 1814, Jefferson wrote to Dr. Thomas Cooper of the "condition of society" as he saw it at that time: " . . . we have no paupers, the old and crippled among us, who possess nothing and have no families to take care of them, being too few to merit notice as a separate section of society. . . . The great mass of our population is of laborers; our rich . . . being few, and of moderate wealth. Most of the laboring class possess property, cultivate their own lands . . . and from the demand for their labor are enabled . . . to be fed abundantly, clothed above mere decency, to labor moderately. . . . the wealthy ... know nothing of what the Europeans call luxury." This has an obvious kinship with the Confucian formula: ". . . that the producers be many and that the mere consumers be few; that the artisan mass be energetic and the consumers temperate. . . ."
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> In the loss of that vision, or of such a vision, and in the abandonment of that possibility, we have created a society characterized by degrading urban poverty and an equally degrading affluence—a society of undisciplined abundance, which is to say a society of waste.

By this time the reader may be wondering, How are we to accomplish the changes—changes in every relation of our lives—that this criticism calls for? That is really the wrong question. If the picture of an ideal life that Berry and some others portray has a definite appeal, then the only thing to do is to move as an individual in that direction. When there are enough people applying these ideas—and this is not by any means impossible since there are families who are doing it—the happiness and security of their lives will begin to attract attention and others will begin to think about changing, too. And there will probably be other encouragements from history, as the existing system begins to break down much more seriously than it already has. Meanwhile, one may also read Berry's books, including *The Unsettling of America,* published a few years ago by the Sierra Club. Also the books of Wes Jackson, which will lead to the inspection of other good reading.

COMMENTARY
CONVERGENCE OF PUBLIC AND PRIVATE INTERESTS

IN addition to what Wes Jackson is quoted as saying on page 2—"The Land Needs People"—we might add that the country needs people who understand the needs of the land. Evidence of this is provided by Sandra Postel in her Worldwatch Paper No. 79, "Defusing the Toxic Threat: Controlling Pesticides and Industrial Waste," recently published at $4. In her conclusion she says:

> Current efforts in integrated pest management and industrial waste reduction only hint at the long-term potential of these two strategies to detoxify the environment. Pesticide use in agriculture could probably be halved and industrial waste cut by at least a third over the next decade. Experience to date suggests that farmers and industries would benefit economically, while threats to public health and the environment would diminish. Yet for society to realize these gains, policies and funding priorities need to actively promote these new methods of production in agriculture and industry, rather than undermining them.
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> Unraveling the near-total reliance farmers have acquired on chemicals will require much greater efforts from agricultural extension workers and researchers to advance nonchemical methods of controlling insects and weeds. Integrated Pest Management programs can take many forms, and not all of them will substantially reduce a farmer's dependence on pesticides. Many fit the definition of IPM because they incorporate the basic techniques of monitoring pests and setting damage thresholds, but they still rely on chemicals as the primary or sole means of pest control.

To reinforce her point Sandra Postel remarks that the "total direct funding in the United States for IPM research amounts to about $20 million annually—less than what is needed to commercialize one chemical pesticide, and a mere one-tenth of 1 per cent of the $26 billion paid to farmers in crop subsidies in 1986."

This should not surprise us. Change in the methods of modern agriculture will have to overcome the powerful industrial interests that profit from the sale of chemicals, which have until recently had the support of government agencies. The only effective way to hasten the processes of reform is to urge upon the general reader the conclusions of men like Wes Jackson and Wendell Berry, whose books are known and available. As Jackson says in this issue (see page 2):

> I realize that what I propose may run counter to current economic considerations because the time required to work our fields has been reduced through the use of the industrial world: tractors, combines, pesticides, fertilizers and so forth. But while we have been saving time, insufficient attention has been paid to the fact that this time savings in our fields has resulted in serious ecological costs, most notably soil erosion and polluted soil and ground water.

Sandra Postel says:

> Making industries assume responsibility for more of the societal costs and risks associated with hazardous substances is crucial to fostering a transition to safer chemicals and products. Government regulators often bear the burden of showing that a substance causes unacceptable harm before they can act to restrict or ban it. If, instead, industries had to prove suspect substances safe, and if they faced strict liability for damages caused from the manufacture, use, and disposal of their products, risks would diminish throughout the chemical cycle. Risky substances would be weeded out in industrial laboratories, rather than by a regulatory agency after many years of use.

Sandra Postel concludes her pamphlet by saying:

> Voters in California overwhelmingly approved a referendum in 1986 that shifts at least some of the responsibility for chemical safety over to industry. It prohibits industries from releasing chemicals on a state list of those believed to cause cancer or birth defects in a manner that might allow them to enter drinking water. It also requires the labeling of products containing those chemicals, even in trace amounts. In court actions involving exposures to substances covered by the law, industry bears the burden of proving the contested exposure harmless. If rigorously enforced, the new law in California should provide substantial incentive for the manufacture and use of safer chemicals and products.

This is a heavy burden to leave to government. The best procedure would be to rely on enlightened public opinion to give force to the laws such as Proposition 65 (referred to above), passed recently in the state of California. As Sandra Postel concludes: "A unique convergence of public and private interests now makes it a ripe time to promote alternative pest control methods and better management of industrial chemicals."

CHILDREN
. . . and Ourselves
INTRINSIC LEARNING

WERNER JAEGER, in the introduction to his three-volume study of Greek education, *Paideia,* speaks of the determinnation of the Greeks to mould their culture "into a permanent form."

> At the earliest stage of their development they had no clear conception of the nature of this act of the will. But as they moved into ever clearer vision, along their historical path, the ever present aim of their life came to be more and more vividly defined. It was the creation of a higher type of man. They believed that education embodied the purpose of all human effort. It was, they held, the ultimate justification for the existence of both the individual and the community. At the summit of their development, that was how they interpreted their nature and their task. There is no reasonable ground for the assumption that we could understand them any better through some superior insight, psychological, historical, or social. Even the majestic works of archaic Greece can best be understood in this light, for they were created by the same spirit. And it was ultimately in the form of paideia, "culture," that the Greeks bequeathed the whole achievement of the Hellenic mind to the other nations of antiquity. Augustus envisaged the task of the Roman empire in terms of Greek culture. Without Greek cultural ideals, Greco-Roman civilization would not have been a historical unity, and the culture of the western world would never have existed. . . .
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> Perhaps it is not great praise to say that the Greeks created the ideal of culture. In an age which is in many respects tired of civilization, it may even be a disparagement so to describe them. But what we call culture today is an etiolate thing, the final metamorphosis of the original Greek ideal. In Greek terms, it is not so much paideia, as a vast disorganized external apparatus for living. . . . It seems, in fact, that the culture of the present cannot impart any value to the original Greek form of culture, but rather needs illumination and transformation by that ideal, in order to establish its true meaning and direction.

While, so far as we know, Jaeger does not appear among any of the works quoted by A.H. Maslow, Maslow was an omniverous reader and may have known *Paideia.* In any event, he undertook to do what Jaeger proposed as necessary for modern education—give it "illumination and transformation" by an ideal. This is clear from the twelfth chapter of Maslow's posthumous work, *The Farther Reaches of Human Nature,* which begins:

> If one took a course or picked up a book on the psychology of learning, most of it, in my opinion, would be beside the point—that is, beside the "humanistic" point. Most of it would present learning as the acquisition of associations, of skills and capacities that are external and not intrinsic to the human character, to the human personality, to the person himself. Picking up coins or keys or possessions or something of the sort is like picking up reinforcements and conditioned reflexes that are, in a certain, very profound sense, expendable. It does not really matter if one has a conditioned reflex; if I salivate to the sound of a buzzer and then this extinguishes, nothing has happened to me; I have lost nothing of any consequence whatever. We might almost say that these extensive books on the psychology of learning are of no consequence, at least to the human center, to the human soul, to the human essence.

Maslow now turns to what he regards as a radical change in the idea of learning. He calls it "humanistic philosophy," of which, with one or two others, he was largely the author. He says:

> Generated by this new humanistic philosophy is also a new concept of learning, of teaching, and of education. Stated simply, such a concept holds that the function of education, the goal of education—the human goal, the humanistic goal, the goal so far as human beings are concerned—is ultimately the "self-actualization" of a person, the becoming fully human, the development of the fullest height that the human species can stand up to or that the particular individual can become. In a less technical way, it is helping the person to become the best he is able to become.

This goal, he says, requires "serious shifts in what we would teach in a course in the psychology of learning." The conventional method relies on the association of ideas, on rote memory, for acquiring certain desirable habits, as may be useful, say, in driving a car, and which

have importance especially in a technological society. Then he says:

> But in terms of becoming a better person, in terms of self-development and self-fulfillment, or in terms of "becoming fully human," the greatest learning experiences are very different.
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> In my life, such experiences have been far more important than classes, listening to lectures, memorizing the branches of the twelve cranial nerves and dissecting a human brain, or memorizing the insertions of the muscles, or the kinds of things that one does in medical schools, in biology courses, or other such courses.
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> Far more important for me have been such experiences as having a child. Our first baby changed me as a psychologist. It made the behaviorism I had been so enthusiastic about look so foolish that I could not stomach it any more. It was impossible. Having a second baby, and learning how profoundly different people are even before birth, made it impossible for me to think in terms of the kind of learning psychology in which one can teach anybody anything. Or the John B. Watson theory of "Give me two babies and I will make one into this and one into the other." It is as if he never had any children. We know only too well that a parent cannot make his children into anything. Children make themselves into something. The best we can do and frequently the most effect we can have is by serving as something to react against if the child presses too hard. . . .
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> If one thinks in terms of the developing of the kinds of wisdom, the kinds of understanding, the kinds of life skills that we would want, then we must think in terms of what I would like to call intrinsic education—intrinsic learning; that is, learning to be a human being in general, and second, learning to be *this* particular human being.

We need to stop here and to recognize the kind of education Maslow is hungering after and acquired more or less for himself, and take note of the fact that not everyone has this yearning. He made his own aspiration for wisdom and full humanness the *norm* of the psychology of learning that he developed. He knew—or came to know—that not everyone has the longings that he felt, that not everyone would accept the postulates to which his desire for wisdom would lead, but he was so convinced of their reality and truth that he had no choice. There are those who are indifferent to his objectives, those who explain them away in terms of less visionary goals, and those—a few—who respond in the same terms as his and study him seriously. How, one may wonder, can we have an educational philosophy based upon what amount to Platonic and Socratic ideals, when so few have realistic feeling for them?

But should education set goals founded on what the "average" person will find acceptable, or should the .goals or ideals reach beyond commonplace objectives? This is the great question Maslow's thinking raises for us all. He says:

> Our conventional education looks mighty sick. Once you start thinking in this framework, that is, in terms of becoming a good human being, and if then you ask the question about the courses that you took in high school, "How did my trigonometry course help me to become a better human being?" an echo answers, "By gosh, it didn't!" In a certain sense trigonometry was for me a waste of time. My early music education was also not very successful, because it taught a child who had a very profound feeling for music and a great love for the piano *not* to learn it. I had a piano teacher who taught me in effect that music is something to stay away from. And I had to relearn as an adult, all by myself.
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> Observe that I have been talking about ends. This is a revolutionary repudiation of nineteenth-century science and of contemporary professional philosophy, which is essentially a technology and not a philosophy of ends. I have rejected thereby as theories of human nature, positivism, behaviorism, and objectivism. I have rejected thereby the whole model of science and all its works that have been derived from the historical accident that science began with the study of nonpersonal, nonhuman things, which in fact had no ends.

How does one teach in the way that Maslow recommends and advocates? You don't—you don't because you can't—but you may be able to get a bewildered child over some pretty rough bumps, and perhaps be able to help him to aim himself in the right direction.

FRONTIERS

News From Abroad and Home

A LETTER by John R. Sisley in *Fellowship* for last June begins with a description of the Heifer Project International (Box 808, Little Rock, AR 72203), a worldwide development organization that gives livestock to families who are anxious to work their way out of poverty. The recipients of the animals promise to "pass on the gift" by giving the first female offspring of the livestock to another qualified family. This activity has been carried on for the past forty years, providing animals to people in 106 different countries and twenty-six of our own states. Sisley says:

> When I visited a small Honduran farm on the border of Nicaragua, I met formerly landless peasants who had laid claim to a portion of the large cattle ranch where they had been day laborers. The owners had taken the cattle away, and with them the only source of income the people had. Now the peasants had the land, and were receiving Heifer Project cattle, sheep, chickens and bees.
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> A young father shook my hand excitedly, and through tears of joy said, "Thank you! Because you have come, my daughters will not die in my arms!" I was shocked and startled, but as the story unfolded I realized that I had played at least a small part in the drama. When the young farmer's daughter was diagnosed as malnourished, he obtained a "pass on the gift" goat from a neighboring farm. Goat's milk brought her back to full health. Infant mortality among the rural poor in the area is astronomical, but this father would fear no more.
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> As we toured the farm, I was impressed with the pride people expressed as they showed me "our sheep, *our* land!" The Nicaraguan contras, who camp uninvited on the peasants' land, were firing that day into Nicaragua, perhaps half a mile away. The Honduran Army came rushing up in big trucks, to resist the Nicaraguan Army should it decide to invade Honduras to silence the contra guns. In the middle of all this, the people pointed with pride to "our bees!"

A writer for *Asian Action* (May-June), newsletter of the Asian Cultural Forum, recently visited some of the rural areas of China and set down his comments. He begins by saying that Chinese application of appropriate technology, using inexpensive methods and home-made tools, could be adopted by the rest of rural Asia. He goes on:

> A deep sense of self-reliance, together with a determination to find answers to the problems of community life have combined with the innate genius of the Chinese people to produce effective and inexpensive ways to meet the challenges of life. The developing countries which have got involved in the complex tangle of imported multinational hardware which run on imported energy could benefit immensely from the success story of self-reliance of the Chinese people.

Transport is a basic problem for farmers—how will they get their produce to the market?

> The Chinese farmer has his own simple device of a light cart fitted with adapted bicycle wheels and straps tied on to the shoulders of the person walking ahead. It is a common sight to see the farmer and his wife walking to market with the straps of the cart clipped on to their shoulders. Where the road is on an incline, one would push from behind while the other pulls.

All the carts of the Chinese are now fitted with rubber tires, which are easy on the roads and on the men or animals which draw them.

One of the editors of the *Ecologist*, Nicholas Hildyard, in a recent issue, described the Sandoz warehouse fire, which discharged a vast amount of poisonous chemicals into the Rhine, killing outright half a million fish. Such terrible accidents, he said, make "nonsense of the whole thrust of current pollution controls." He recommends legislation that will force industry to move away from rivers and other watercourses to prevent pollution from happening. He continues:

> Such a policy—albeit in limited form—has now been introduced in California under a new law known as Proposition 65. Passed by a two-to-one majority in a state referendum, the Proposition requires the Governor of California to publish a list of chemicals which are known to cause cancer or birth defects. Under the new legislation, it will become illegal knowingly to allow "significant" amounts of any of the listed chemicals into any source of drinking water. Not only will ordinary citizens have the right to sue companies which they suspect of infringing the

new regulations but, in sharp contrast to previous legislation, it will be up to the accused companies to prove their innocence. The burden of proof has thus been shifted dramatically.

The implications of Proposition 65 for the siting of factories and waste disposal facilities are far-reaching. In particular, the new law will force industrial plants away from watercourses and hasten the end of landfill as a means of disposal. Hopefully, it will also promote the adoption of "low-waste" production processes and encourage companies to cease producing those chemicals which are either proven or suspect carcinogens or teratogens. . . . It must be made abundantly clear to our legislators that we do not wish any carcinogenic or teratogenic chemical produced or stored—in any quantities—near any water supply.

We solicited the comment of an attorney and a MANAS reader, Keith Pritsker, who is active in the Los Angeles City Attorney's office in prosecuting polluters and disposers of hazardous wastes. He said:

Proposition 65 was passed by two-thirds of California voters despite the fact that industries opposed to the measure outspent its proponents by more than three to one. It requires notice to persons who are exposed to toxic substances and restricts their discharge into drinking water. It is unique in that, for the first time, the burden of proving such a substance non-harmful is placed upon those who dispose of toxic materials.

A growing distrust of industrial "progress" is now reflected in law. Many battles regarding implementation of Proposition 65 are yet to be fought, and whether its provisions will be gutted by clean-up legislation sponsored by chemical and industrial interests remains to be seen.