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IS PEACE "UTOPIAN"?

NEARLY all Utopias have two ingredients which, in varying degree, make them utopian. One is the tendency of the writer to portray an environment in which the material circumstances and facilities afford immediate satisfaction of human desires, although the people seem little changed in their habits and inclinations from what they are in the societies we are familiar with. We could describe these romances as the literary realization of adolescent dreams, with about as much likelihood of fulfillment. H. G. Wells was guilty of such constructions, as have been some of the later science fiction writers, and the eighteenth-century materialist and iconoclast, Julien De Lamettrie (1709-1751), declared in *L'Homme Machine* (1748) that if mankind would become atheistic, free of the deceptions of theology, "men would follow their own individual impulses, and these impulses alone can lead them to happiness along the pleasant path of virtue." One could even say that Robespierre instituted the Reign of Terror in 1793 as a means of providing "happiness" to the Paris mob, condemning to the guillotine all those who were selected for death by the sans-culottes according to their "impulses."

The other ingredient of Utopias presents the reader with a transformed humanity, a conversion to human goodness, strong character, and personal discipline so complete that the social arrangements and relations are all in frictionless harmony. The problems of order and government are reduced to zero by the magic of self-rule. That such a transformation of character would have this broad effect we may have little doubt, the difficulty being with so extraordinary a change in human nature: *How* was it accomplished? We may accept that the fundamental task in producing an ideal society is the reformation of character of the individuals involved, but that this change should be rapid or take place in our own time seems unbelievable.

Yet Bellamy, for one, in *Looking Backward*, relied upon such an alteration as the basis for his organic socialist society. As Dr. Leete explains to Bellamy's observer, Julian West, the people simply decided that the time had come to give up the profit motive in economic enterprise and to organize all undertakings for the common good. West is incredulous:

> "Such a stupendous change as you describe," said I, "did not, of course, take place without great bloodshed and terrible convulsions."
>
> "On the contrary," replied Dr. Leete, "there was absolutely no violence. The change had been long foreseen. Public opinion had become fully ripe for it, and the whole mass of people was behind it. There was no more possibility of opposing it by force than by argument. On the other hand the popular sentiment toward the great corporations and those identified with them had ceased to be one of bitterness, as they came to realize their necessity as a link, a transition phase, in the evolution of the true industrial system. . . . Thus it came about that, thanks to the corporations themselves, when it was proposed that the nation should assume their functions, the suggestion implied nothing which seemed impracticable even to the timid. To be sure it was a step beyond any yet taken, a broader generalization, but the very fact that the nation would be the sole corporation in the field would, it was seen, relieve the undertaking of many difficulties with which the partial monopolies had contended."

Apparently, this easy persuasion to socialism was quite acceptable to Bellamy's nineteenth-century readers of *Looking Backward* (published in 1888). A reviewer of that time declared: 'Men read the *Republic* or *Utopia* with a sigh of regret. They read Bellamy with a thrill of hope." William Allen White, famous editor of the *Emporia Gazette*, said: "The book had a tremendous influence on my generation. Young men in high

school and college, serious young men in those days, were talking about it." Half a century after its first appearance *Looking Backward* was still selling at the rate of five thousand copies a year.

In our own history, this period—the 1920s and 1930s—was the time of acceptance that the modern world had had enough of war. As Lawrence S. Wittner remarks in *Rebels Against War* (in a revised edition by Temple University Press, $9.95, covering the American peace movement from 1933 to 1983), the pacifist ideal began to take hold soon after World War I was over, "when a wave of disillusionment with that conflict swept across the country." Millions of Americans vowed "never again." The Christian pacifist Fellowship of Reconciliation had been formed in England in 1914 and later developed into one of the leading spokesmen for radical Protestantism in the United States. The War Resisters League was founded in New York in 1923 by Jessie Wallace Hughan "to unite political, humanitarian, and philosophical objectors to war." The Oxford Oath, originating in England, became popular in the United States, and a great many students pledged themselves to "absolute refusal to serve in the armed forces." The Women's International League for Peace and Freedom, founded in 1915 by Jane Addams and other reformers, expanded and became widely influential, with one hundred and twenty branches in the U.S. in 1937. There was also the pacifist Catholic Worker movement begun in 1933 by Peter Maurin and Dorothy Day. Meanwhile the service committees of the traditional peace churches, Quakers, Mennonites, and Brethren, and some others, came into prominence. Speaking of these and related bodies, Lawrence Wittner says:

> Although in no sense mass organizations, these groups exercised considerable influence during the mid-Thirties. Through a maze of supporting organizations and interlocking committees, and buoyed up on a cushion of favorable public opinion, pacifists were able to reach out to some forty-five to sixty million Americans. The American peace movement had reached its zenith. Yet probably after 1935, and certainly after 1937 the pacifist impulse began to ebb, its strength declining in direct proportion to the rise of European fascism.

Wittner explains:

> Ironically, and tragically, the renunciation of war by Americans coincided with Mussolini's seizure of power in Italy, the Nazi triumph in Germany, and the growth of Japanese militarism. But the discrepancy proved short-lived, for as the Axis powers began their series of military conquests—China and Ethiopia, Spain and Albania, Austria and Czechoslovakia—successive layers of the American peace movement broke away in anguished response. Moreover, those with an ethical revulsion to war could not fail to reserve a special shudder for the peculiar horrors of fascism. The destruction of individual liberty, the glorification of hatred, and, perhaps, the ugliest of all, a series of anti-Semitic attacks that raised the ancient pogrom to the status of a state religion, sickened American peace activists, and led many to conclude that war represented the lesser of two evils.

One by one, those who had been regarded as staunch pacifists withdrew from the ranks and declared that military violence had unfortunately become necessary. Among these sometimes reluctant converts to war was the eminent Reinhold Niebuhr, who had been chairman of the F.O.R. (Fellowship of Reconciliation), who not only decided that pacifism "is a very sentimentalized version of the Christian faith," but started a magazine "designed to combat pacifism and neutralism within the churches."

As might be expected, the armchair peace adherents melted away, but a substantial number of young conscientious objectors remained firm in their conviction and stand. Despite the prejudice and stubbornness of some draft boards, a total of 42,973 men were classified by the government as C.O.'s, suggesting to Wittner that "the number of absolute pacifists in the nation must have numbered in the hundreds of thousands." But commenting generally, Wittner says:

> War came as a rude shock to peace activists and left in its wake the depressing realization that traditional pacifism had failed to move nations from their violent course. For many in the pacifist hard

> core, especially within the peace churches, the war was simply another illustration of the "sinfulness" of this world but for others it stimulated considerable self-criticism. Pacifist poet Kenneth Rexroth observed: "Many people . . . feel that orthodox pacifism in the US has very little sense of the reality of the disaster which has swept mankind, and is content to dodge the issues by clinging to a philosophy of life which is really only official interbellum propaganda of the Have Nations". . . . Pacifists were in "a very compromising position," another pacifist [George Hauser] admitted, with neither "the power to effectively resist the war on the one hand, nor to effectively resist fascism on the other."

What Rexroth and Hauser were describing was really the dissolution of a utopian dream or expectation. Secure in their conviction that war was completely wrong, both a folly and immoral, many pacifists supposed that the "Never again" of post-war disillusionment would stand as a permanent decision against participation in another conflict. The second ingredient of utopian faith led them to believe that a sufficient number of their countrymen were likewise convinced of the futility of war and would stand firm against national policy moving in this direction. They actually thought they could *win*, that given the antiwar sentiment that had become so articulate in the 20s and early 30s—in novels, historical studies by revisionist historians, and even in the declarations of some political leaders—they *should* win. As late as 1937, when Americans were asked in a poll, "If another war like the World War develops in Europe, should Americans take part again?", 95 per cent answered "No."

But a realistic regard for the frailties of human resolve and the capacity for rationalization would have tempered if not abolished such optimism. Gandhi, when asked by C. P. Snow what the policy of a free India would be after independence was gained, made this reply:

> What policy the National Government will adopt I cannot say. I may not even survive it much as I would love to. If I do, I would advise the adoption of non-violence to the utmost possible extent, and that will be India's great contribution to the peace of the world and the establishment of a new world order. I expect that with the existence of so many martial races in India, all of whom will have a voice in the government of the day, the national policy will incline towards militarism of a modified character. I shall certainly hope that all the effort for the last twenty-two years to show the efficacy of non-violence as a political force will not have gone in vain and a strong party representing true non-violence will exist in the country. (*Harijan*, June 21, 1942.)

In another issue of *Harijan* in the same month Gandhi said that "twenty-two years are nothing in the training of a nation for non-violent strength," and that "my nonviolence is represented possibly by a hopeless minority, or perhaps by India's dumb millions who are temporarily non-violent." He went on:

> But there too the question may be asked: "What have they done?" They have done nothing, I agree; but they may act when the supreme test comes, or they may not. I have no non-violence of millions to present to Britain, and what we have has been discounted by the British as non-violence of the weak. And so all I have done is to make this appeal on the strength of bare inherent justice, so that it might find an echo in the British heart. It is made from a moral plane, and even as they do not hesitate to act desperately in the physical field and take grave risks, let them for once act desperately on the moral field and declare that India is independent today, irrespective of India's demand.

It is of more than incidental interest that when Snow asked Gandhi if, when India was free, he would oppose a militarist policy with civil disobedience, Gandhi replied: "I cannot oppose Free India's will with civil disobedience. It would be wrong."

A reading of Gandhi and an understanding of the basis of his decisions and judgments helps in explaining the depression and disappointment of American pacifists as their numbers diminished and the nation moved toward war. They seemed to measure the "truth" of pacifism by how successful it was in preventing war. This was not Gandhi's criterion. For him, winning was not the vindication of refusing to harm others. Vindication lay in the inner attitude of non-

violence adopted and in its uncompromising practice, whatever the result. In the long term, he believed, it would be victorious, but basing his views on the *Bhagavad-Gita,* he shared with Krishna, the teacher, the principle of acting rightly, without regard for its fruit. For him the true victory lay in the faithful integrity of the actor.

Not so for the Americans, save for the truly religious pacifists and the handful of Gandhians in the West who understood the *Gita's* moral dialectic. Pacifism, to be true, Americans believed, had to work. When it didn't work, as in its failure to prevent America's entry into World War II, either the doctrine of peace or the pacifists were at fault. A. J. Muste, Christian pacifist leader and veteran commentator, did not adopt this view. After the first use of atom bombs on Japan he said: "Americans would do well to be less concerned about atomic bombs which may be dropped on them than about what the bombs they dropped on Hiroshima and Nagasaki did to them." What did Muste mean by "them"? He probably meant the Japanese. Gandhi, by such a statement, would have had the suffering of the Japanese in mind, but he would also have meant those who dropped the bomb: What had the act done to themselves?

The great question, for those who are determined to establish peace, is what to do about power. Power, in a current definition, is "the capacity to achieve one's will against the will of another." The will to power, then, is the fundamental cause of war. Gandhi's way of peacemaking was to abandon the use of power for any purpose. While he might speak of the "power of non-violence," this applies at another level of life. It is not competitive and refuses to do harm. The true use of power, in Gandhi's view, is in power over oneself. It is not to be exercised over others, who must come to the refusal to use power for themselves, not by being overcome with force. The Western, and American, conception of the control of power is quite different. One must use power to regulate its use by others. But there is no guarantee that the individual or nation possessing transcendent power will not abuse it.

This is the essential problem as set in a book which came out this year—*The Parable of the Tribes* (University of California Press, $19.95), by Andrew Bard Schmookler. He says:

> Imagine a group of tribes living within reach of one another. If all choose the way of peace, then all may live in peace. But what if all but one choose peace and that one is ambitious for expansion and conquest? What can happen to the others when confronted by an ambitious and potent neighbor? Perhaps one tribe is attacked and defeated, its people destroyed and its lands seized for the use of the victors. Another is defeated, but this one is not exterminated; rather, it is subjugated and transformed to serve the conqueror. A third seeking to avoid such disaster flees from the area into some inaccessible (and undesirable) place, and its former homeland becomes part of the growing empire of the power-seeking tribe. Let us suppose that others observing these developments decide to defend themselves in order to preserve themselves and their autonomy. But the irony is that successful defense against a power-maximizing aggressor requires a society to become more like the society that threatens it. Power can be stopped only by power, and if the threatening society has discovered ways to magnify its power through innovations in organization or technology (or whatever), the defensive society will have to transform itself into something more like its foe in order to resist the external force.
>
> I have just outlined four possible outcomes for the threatened tribes: destruction, absorption and transformation, withdrawal, and imitation. *In every* one *of these outcomes the ways of power are spread throughout the system.* This is the parable of the tribes.

We said above that this author sets the problem of peace in his book, and that is about all he does, although, in four hundred pages, he does it rather thoroughly. He says at the end that the parable of the tribes "has implications for how our systems must be redesigned," yet one would think that in so large a book he would offer a few suggestions along this line. Curiously, there is no

reference in either his pages or in his index to pacifists, Gandhi, and non-violence. One wonders why. There must be a reason. Mr. Schmookler notes in his final chapter that he hopes to write another book to offer some solutions. We shall wait for it with interest.

Yet here and there are hints of the direction of his thinking. In one place he says: "Where men are brothers, the strength of love blocks the ruthless workings of the world's way." And in the conclusion of a chapter on "Power and the Psychological Evolution of Civilized Man" he says:

> How rich a life is man's birthright? My vision is that we—most of us, most of the time—realize but a shadow of our natural potential. Our life energy moves through us as if we had atherosclerosis of the soul. The life we were born to is much more deeply nourishing than what we have. It is also my perception that we are—most of us, most of the time--profoundly incapable of grasping the severity of our sickness of the soul. We are like the inhabitants of Plato's cave who mistake the shadow of ourselves for our reality, and never dream how illuminated our being could be. Chronic injury produces numbness, and chronic numbness creates amnesia of the natural strength of our life-force. Conventional consciousness, therefore, regards as deluded utopians those whose voices cry out that our growth as human beings is being stunted. Our day-to-day mundane existence is regarded simply as the way life is. Only when the wounds become visible in the actual shedding of blood is a problem recognized (though even here the reaction is often flat). Life in the cave. I have not been able to make my home in the full light of the sun, but the visits I have made there make me cling, even as I lapse back into the cave, to the more real vision of the natural fullness and richness of human life.

This writer's vision seems candidly utopian, yet his hopes may be founded on a more realistic perception of what is required in the way of inner development and the reformation of character than what is found in the utopias we referred to at the beginning. Mr. Schmookler's readers are likely to feel that he takes himself and his ideas very seriously. There may be reason to think that he should.

REVIEW
THE SECRET OF ECONOMIC GROWTH

JUDGING from their published theories and from newspaper reports of their opinions, professional economists believe that the wealth of nations grows or declines according to the amount of things people are able to acquire, and that the favorable or unfavorable economic processes are understood in terms of numbers which measure the total amounts of things involved. The manipulation of these numbers is held to point to the remedies needed in bad times, which amount to the manipulation of things or of the money by which they are represented.

Jane Jacobs, in C*ities and the Wealth of Nations* (Random House, 1984, $17.95), condemns such theories and doctrines as utterly missing the point. Not being a professional economist, but a writer devoted to the welfare of urban life, Mrs. Jacobs has never been obliged to think in conventional economic terms, and while from reading she is sufficiently acquainted with conventional theory, she is able to look at realities almost entirely ignored by the economists.

What makes for prosperity? Good times are produced, she says, by the resourcefulness, ingenuity, and improvisation of the people who live in cities, and are likely to be hindered rather than assisted by the manipulations of money and things by the managers of governments. She believes that economic growth is determined in cities and city regions where entrepreneurs are close enough to work together, making a loose unit of their region. She says that measurements of economic activity which are based on national figures conceal what is actually happening by averaging statistics all together instead of recognizing where growth is actually generated and takes place.

What is the secret of economic growth, according to Jane Jacobs? Her answer is quite simple. Usually a city begins by importing the things it needs—that is, the things nobody in the area knows how to make. If the people are satisfied with this arrangement and make no effort to replace imported goods with domestic manufactures, they do not enjoy economic growth, even though they may have a short or long period of prosperity earned through the export of raw materials to manufacturing countries. But if they begin to develop local industry, copying or inventing manufacturing techniques, small businesses and industries multiply, creating local wealth. The importing doesn't stop but the articles imported change, and then, if these new items can be made locally, they change to still other things. This is the path of economic progress. It isn't exactly a law, since so much diversity and special conditions are involved in each case, but it comes very close to being a law. Its operation is demonstrated from a number of illustrations in economic history.

Here we make use of the author's general statements, such as the following:

> Distinctions between city economies and the potpourris we call national economies are important not only for getting a grip on realities; they are of the essence where practical attempts to reshape economic life are concerned. For example, failures to make such distinctions are directly responsible for many wildly expensive economic debacles in backward countries, debacles which have resulted from the failure to observe that the all-important function of import-replacing or import-substitution is in real life specifically a city function, rather than something a "national economy" can be made to do. . . .
>
> To summarize briefly, once replacements start, they stimulate more replacements. When such an episode is over, a city must build up new funds of potentially replaceable imports, mostly the products of other cities, if it is to experience another chain reaction. The process vastly enlarges city economies as well as diversifying them, and causes cities to grow in spurts, not even and gradually. The growth is by no means all net growth, however. Much import-replacing, especially in already large cities, merely compensates for the loss of older work; some because some former customer cities take to replacing imports themselves and even become competitive producers of the items they formerly imported; some because well-established enterprises, after having first developed in

> the symbiotic city nest, transplant their operations to distant places . . . some because old work and many old enterprises, too, grow obsolete. . . .
>
> Economic life as a whole has expanded to the extent that the import-replacing city has everything it formerly had, *plus* its complement of new and different imports. Indeed, as far as I can see, city import-replacing is in this way at the root of all economic development.
>
> It is important, if we are to understand the rise and decline of wealth, for us not to be fuzzy about an abstraction like "expansion" but to be concrete and specific about how expansion occurs and of what it consists. The expansion that derives from city import-replacing consists specifically of these five forms of growth: abruptly enlarged city markets for new and different imports consisting largely of rural goods and of innovations being produced in other cities; abruptly increased numbers and kinds of jobs in the import-replacing city; increased transplants of city work into non-urban locations as older enterprises are crowded out; new uses for technology particularly to increase rural production and productivity; and growth of city capital.

The growing prosperity of Taiwan makes one of Jane Jacobs' illustrations. In the early sixties distant manufacturers were seeking cheaper labor and built branch plants on Taiwan. Mrs. Jacobs calls these plants "transplants." The Taiwanese who worked in these plants learned how to set them up, how to run them. This happened mostly in Taipei, the capital city, where "these experiences and skills were now brought together with indigenous capital; men who first gained experience in transplants managed workshops and factories capitalized by the new local investors in light industry." Some of them did subcontract work for exporters in Hong Kong, others began to compete with the transplants, getting local workshops to help out with processes they hadn't yet learned.

> In this way they stimulated not only the work of local shops but also the formation of new ones, which ramified and multiplied. And in this way, as fast as new niches opened up, Taipei was developing a real foundation for symbiotic and versatile production on its own behalf. The networks of symbiotic enterprises became capable not only of supplying one another, and exporters as well, but also of replacing with their own production some of the producers' goods being imported, as well as some consumers' goods.
>
> As an import-replacing city, which it was within fifteen years, Taipei boomed. Like any import-replacing city, it began generating a city region of its own, and like any import-replacing city it also began generating capital at a great rate. Not only was the economic development paying for itself as it proceeded, it was generating a surplus. Some of that capital helped afford Taiwan means of financing heavy industry (and much else) in a second city, Kaohsiun—which has also taken to replacing imports, including of course, and most significantly, imports from Taipei.

Ironies develop, too. Taiwan is no longer a good place for transplants from America or other "advanced" nations. Mrs. Jacobs quotes:

> "We had a lovely little operation running there for over a decade," an American toy manufacturer complained to a Canadian newspaper correspondent in 1979, "but we had to close it down last year because we couldn't get anyone to work for us. The place has become too damn industrialized and they want too much money."

Why don't the conventional economists explain about the importance of import-replacing? Again, the answer is simple. To replace imports requires ingenuity, invention, and persistence. These are human qualities, sometimes identified with "creativity," and you can't make numbers out of them. Economists don't know how to handle incommensurable realities, and the factors which make for health—whether of body or an economy—can't be fed into a computer. Least of all can you write textbooks about these realities or qualities, although some people try. Mrs. Jacobs, however, succeeds pretty well. Following are some of her statements, pieced together from the second half of her book:

> Development is a do-it-yourself process; for any economy it is either do it yourself or don't develop. . . Apart from the direct practical advantages of improvisation, the practice itself fosters a state of mind essential to all economic development, no matter what stage development has reached at the time. The practice of improvising, in itself, fosters delight in pulling it off successfully and, most

> important, faith in the idea that if one improvisation doesn't work out, another likely can be found that will. Invention, practical problem solving, improvisation and innovation are all part and parcel of one another. . . . cities are uniquely necessary to economic life. Their vital functions are to serve as primary developers and primary expanders of economic life, functions that work not in the least like perpetual motion. They require continually repeated inputs of energy in two specific forms: innovations, which at bottom are inputs of human insight; and ample replacements of imports, which at bottom are inputs of the human capacity to make adaptive imitations. The usefulness of cities is that they supply contexts in which those inputs—insights and adaptations—can be successfully injected into everyday life. . . .
>
> "Industrial strategies" to meet "targets" using "resolute purpose," "long-range planning" and "determined will" express a military kind of thinking. Behind that thinking lies a conscious or unconscious assumption that economic life can be conquered, mobilized, bullied, as indeed it can when directed toward warfare, but not when it directs itself to development and expansion.

What will get us out of our economic mess? Little short of an economic earthquake, Mrs. Jacobs believes. She is almost certainly right.

COMMENTARY
PEACEMAKERS

THERE are two sorts of people who work toward or contribute to peace. One includes all those who declare themselves pacifists or peace-makers and who argue with the rest of the world about what is necessary to put an end to war. There has been a little progress along this line, since no one now claims that war builds character and brings out the best in human beings. But the opposition still maintains that peace is a vain dream. As Andrew Schmookler suggests in *The Parable of the Tribes* (see page 7), the idea that "Power can be stopped only by power" is the common belief of mankind at present, and it seems obvious to most of us that the only way to end wars will be for the good people to get the most power and use it to control the bad people. But we don't carry this argument to its next step, which is that the good people become like the bad people by adopting their methods.

We don't believe that we, for example, could ever become bad, and we regard as pretty bad the persistence of pacifists who bring evidence that we have already gone pretty far in that direction. We say it is unAmerican to dig up such unpleasant facts, and that those who collect them seem to think more highly of our enemies than they do of their own country. Our leaders, they say, are doing the best they can. Yet these facts are now getting more numerous, more obvious, and more upsetting, and it is harder for the leaders to talk around them.

The other approach to the problem of war is illustrated by the people who don't call themselves pacifists, don't speak much about ending war, but who behave in ways that could never lead to war, simply from natural inclination. It often seems evident that unless we develop more people of that sort, there will never be peace, no matter how the argument about stopping war goes.

Gandhi, of course, was both kinds of peacemaker. He talked about it and he lived in peaceful ways. This double course may be necessary when the threat or likelihood of war reaches crisis dimensions. Which is to say that the non-talkers need to become talkers, too. Sometimes, oddly enough, even though they are unpracticed in argument, what they say becomes the most convincing.

* * *

An unhappy mistake occurred on page 1 of the Oct. 31 issue. In the middle of the first column the word scientific appears in quotation marks. The quotation marks were intended, but the word should have been "scientistic," in contrast with "scientific." We much regret this lapse in proof-reading.

CHILDREN
. . . and Ourselves
THE MEANING OF EDUCATION

YEAR by year, we have assumed that *Finding His World: The Story of Arthur E. Morgan,* by Lucy Griscom Morgan, first published in 1928, is out of print. Since this book seems the best possible answer—if there is *any* answer—to the question which Morgan spent an entire lifetime trying to understand, we are now delighted to announce that we have been mistaken. The book is available, probably in the original edition, from Community Service, Inc., P.O. Box 243, Yellow Springs, Ohio 45387, at the ridiculous price of $3.00 postpaid. We are ordering two copies for ourselves, to add to the one we have read and used for years, for lending to friends. The information as to its availability was in the July-August issue of *Community Service Newsletter,* in a review by Betty Crumrine. As she explains, the book was put together by Lucy Morgan, Arthur's second wife and the mother of three of his children. It is mostly extracts from his diary, with some additional material contributed by Lucy, and an epilogue by Morgan. The entries cover the period from his fourteenth to his twenty-second year. They are the adventures and reflections of a youth who would become a great educator and the country's leading flood control engineer.

What was his early life like? The reviewer summarizes:

> After Arthur graduated from high school, he taught school and then, seeing no future in St. Cloud, built a raft and floated down the Mississippi. His adventures in the West intrigue the reader; he worked husking corn and in a dairy and even applied for a chambermaid's job, but didn't get it. In 1898 he was in Denver and the journal entries reflect a restless searching for the path he should follow. He took jobs ranching, woodchopping, setting type, trimming grapes, and collecting ferns and selling them. . . .
>
> In 1899 he started taking courses at a university but failed most of them. He peddled great literature in a cart, convinced that miners and woodcutters would read it if they could get the books. For almost four months he traveled around trying to sell fifty thirty-cent copies of Ruskin, Carlyle Goethe, Emerson and Kipling, but at the end of that time he'd read them all and sold none! He worked in a coal mine a lumber camp, apiary, orchard, mowed alfalfa ran a library and in 1900 returned to Minneapolis; eventually, he went to work for his father who began to teach him about surveying. In 1902 he got a job as surveyor of pine lands on the Chippewa Indian Reservation. In 1904 he married his first wife, and his son, Ernest, was born in 1905; the young mother died of typhoid fever and Arthur took the infant home to live with his parents. Soon he began studying drainage and flood protection and, in 1907, he took the U.S. Department of Agriculture's civil service exam, passed and was made "supervising engineer."

That's how Morgan got started on a career in which he ended up organizing and running the Tennessee Valley Authority (TVA) in the 1930s. The two books by Morgan we return to most frequently are *Finding His World* and *The Long Road.*

* * *

Last year, writing in a paper called *Katallagete* (Fall, 1983), Wendell Berry turns his account of a meeting of citizens with some nuclear power representatives (which he attended) into an occasion for discussion of education, but we need to tell about the meeting to make the point of his discussion clear. The nuclear people were from Public Service Indiana, which was building a nuclear power plant at Marble Hill, Indiana. The citizens were people who lived close enough to the plant to be upset. The meeting, Berry says, was "typical."

> The fears, objections, questions, and complaints of the local people were met with technical jargon and with bland assurances that the chance of catastrophe was small. In such a confrontation, the official assumption apparently is that those who speak most incomprehensibly and dispassionately are right; and that those who speak plainly and with feeling are wrong. Local allegiances, personal loyalties, and private fears are not scientifically respectable; they do not weigh at all against "objective consideration of the facts"—even though some of the "facts" may be highly speculative, or false.

Well, the nuclear people won, Berry says, and are still-winning. But an episode during the meeting was worth repeating:

> A lady rose in the audience and asked the fifteen or twenty personages on the stage to tell us how many of them lived within the fifty-mile danger zone around Marble Hill. The question proved tactically brilliant, apparently shocking to the personages on the stage, who were forced to give it the shortest, plainest answer of the evening: *Not one.* Not a single of those well-paid, well-educated, successful, important men would need to worry about his family or his property in the event of a catastrophic mistake at Marble Hill.

Berry suggests that the nuclear plant builders (and defenders) are "itinerant professional vandals" who are "now pillaging the country and laying it waste."

> Their vandalism is not called by that name because of its enormous profitability (to some) and the grandeur of its scale. If one wrecks a private home, *that* is vandalism. But if, to build a nuclear power plant, one destroys good farmland, disrupts a local community, and jeopardizes the lives, homes, and properties within an area of several thousand square miles, *that* is industrial progress.

How does one qualify as a professional vandal? Well, you need what is called "higher education" to get jobs like that. As Berry says:

> Many of these professionals have been educated, at considerable public expense, in colleges or universities that had originally a clear mandate to serve localities or regions—to receive the daughters and sons of their regions, educate them, and send them home again to serve and strengthen their communities. The outcome shows, I think, that they have generally betrayed this mandate, having worked instead to uproot brains and talents, to direct them away from home into exploitive careers, and so to make them predators of communities and homelands, their own and other people's.

Now comes the passage on education, broadening its meaning:

> Education in the true sense, of course, is an enablement to *serve* both the living human community in its natural household or neighborhood and the precious cultural possessions that the living community inherits or should inherit. To educate is, literally to "bring up," to bring young people to a responsible maturity, to help them to be good caretakers of what they have been given, to help them be charitable toward fellow creatures. Such an education is obviously pleasant and useful to have. That a sizeable number of humans should have it is probably also one of the necessities of human life in this world. If this education is to be used well, it is obvious that it must be used some *where;* it must be used where one lives, where one intends to continue to live; it must be brought home.
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> Where educational institutions educate people to *leave* home, then they have re-defined education as "career preparation.' In doing so, they have made it a commodity—something to be *bought* to make money with. The great wrong in this is that it obscures the fact that education—real education—is free I am necessarily well aware that schools and books have a cost that must be paid, but I am sure nevertheless that what is taught and learned is free. None of us would be so foolish as to suppose that the worth of a good book is the same as the money value of its paper and ink, or that the worth of a good teacher is equal to his or her salary. What is taught and learned is free. Priceless but free. To make a commodity of it is to work its ruin, for when we put a price on it, we both reduce value and blind the recipient to the obligations that always accompany good gifts: to use them well, and to hand them on unimpaired.
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> To make a- commodity of education, then, is inevitably to make a kind of weapon of it—to dissociate it from the sense of obligation, and so to put it directly at the service of greed.

This is an invitation by Berry to rethink the fundamental meaning of education.

FRONTIERS

Ancient Irrigators

IN the past we have drawn attention here to the superior quality of ancient engineers who practiced what is now called "appropriate technology" in a variety of ways, a good example being the use of the waters of the Nile by the Egyptians. In *The Earth as Modified by Human Action* (Scribner, 1874). George Perkins Marsh tells how "the industry of the Egyptians in the days of the Pharaohs and the Ptolemies carried the Nile-water to large provinces, which have now been long abandoned and have relapsed into the condition of desert." Unlike the performance of the Assuan High Dam built by the Soviets for the Egyptians, two miles long, which withholds the silt from the flow of the river, the "mixed system of embankments, reservoirs and canals built by ancient engineers in Egypt," Marsh says, diffused the soil and increased the productiveness of the arable area of "not less than 11,000 square miles." It has been deduced from borings to great depths, he adds, that this system of irrigation "is probably more ancient than the geological changes which have converted the Mississippi from a limpid to a turbid stream, and occasioned the formation of a vast delta at the mouth of that river." By the gentle direction of the gravity flow of the waters the Egyptians for ages saturated their soil and were able to conduct them "over other grounds requiring a longer or second submersion, and, in general, to suffer none of the precious fluid to escape except by evaporation and infiltration." Among the ancient authorities Marsh quotes are Diodorus Siculus, Plutarch, and Pliny the Elder.

Now comes similar news concerning Libya, part of northern Africa adjacent on the Mediterranean to Egypt, which is now mostly desert. A large portion of this region was the bread-basket of the Roman Empire in the time of Nero, it now being assumed that the area enjoyed a much wetter climate in those days, but it has recently been discovered by archaeologists that this was not so, but that it was occupied by some three thousand farming centers which combined dry farming with local irrigation. Occasion for this discovery was the recent decision of Col. Gadaffi (ruler of Libya) to build a vastly expensive pipeline over 600 miles of desert, carrying water from 270 artesian wells sunk to tap the underground reservoirs in the desert to the coastal area between Bengazi and Sirte. The archaeologists pursuing this research are Barri Jones of Manchester University and Graeme Barker of the British School in Rome. After three years of preliminary surveying 10,000 square miles of desert, they fully excavated one of the farming settlements. Col. Gadaffi is said to have initiated the research program himself. According to the *London Times:*

> One feature of Roman desert farming uncovered by the survey was the elaborate system of small walls built to channel water onto the silt-rich cultivable floors of wadis (driedup water-courses). The layout of farming settlements made it clear that the Romano-Libyans exploited what rainfall there was by studying local runoff characteristics—how the topography determined where and how precipitation collected. As a result, in wadis now stony and barren, there once flourished barley, olives, pomegranates, and possibly vines. And it is hoped that present-day agriculture will benefit as more is discovered about the dry-farming techniques they used.

The focus of the research was on the completely excavated site—Wadi Lamout, 120 miles south of Tripoli, where a large olive press was found, capable of producing more than 350 gallons of olive oil a year. "This is obviously a much greater quantity than one family would need," said Barri Jones. "They were producing the surplus for a market economy. And the Roman market system would have given them the incentive to exploit their farming methods." This farm was in production, he said, by 60 or 70 A.D.

The *Times* report continues:

> Indeed, it even appears that the Romano-Libyans were not the first successful farmers in the area. The preliminary report by Barker and Jones found that: "The technology of wall-building to control water and soil is probably of great antiquity in

> the study area, perhaps for three or four thousand years." Roman times saw agricultural expansion rather than wholesale innovation.
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> The Wadi-Lamout dig also turned up fragments of pottery covered with Roman writing that may prove to be the farm's records, but these await translation. "But at last we've got some figures with which we can calculate output," said Jones. The amphorae (tall pottery storage jars) in which the oil was stored and transported apparently came in two sizes, holding 11½ and 23 gallons. "The bigger ones are huge," said Jones, "goodness knows how they moved the stuff about. They're too big even for camels."

The pipeline planned by Gadaffi will have a total length of 1300 miles and will take seven years to complete. The idea is eventually to extract 900,000,000 gallons of water a day from the aquifer under the north African desert—more water than is now used daily by the city of London.

Since Tripoli is named in this story we began by looking it up in the eleventh *Britannica*, which has three full pages on the region. It was once a thriving Neolithic culture where a great variety of megalithic structures—dolmens and circles like Stonehenge, cairns and underground cells excavated in live rock, barrows topped with huge slabs, and step pyramids—have been found. In historical (?) times it was a Phoenician colony, later inhabited by Greeks, then by Romans, who named it Libya. In the seventh century the country was overrun by Arabs. In the nineteenth century Tripoli was the capital city of the larger area, and in 1951, by decision of the United Nations, the region became the "independent and sovereign state of Libya."

Meanwhile satellite photographs and pictures taken from the air are revealing the agricultural (ecological?) talents of other ancient peoples, especially in the New World. A story in the *Smithsonian* for last March tells about photographs of the jungle area of Guatemala, including Belize in Honduras, which show that it was once covered with a network of canals constructed by the Mayans to irrigate land which fed a population estimated at two million. Archaeologists believe the canals were installed fifteen hundred years ago.

Then, a writer on the *Los Angeles Times* (June 18), George Alexander, tells of an aerial picture of a region which appears to be the site of the lost Mayan city of Oxpemul, showing farms and fields. There are signs of complex structures suggesting urban developments in a strip forty miles long and three miles wide, including "house mounds" with numerous adjoining plots of walled fields. This area is in Mexico, near Campeche and Quintana Roo.