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AT THE HEIGHT OF OUR TIME

WHAT bearing does the life of the mind have on the life of the world? Whether or not what we think has importance in relation to what we do, we shall certainly go on thinking, because it is our nature to think. We can't help it. A fine logical case could be made for the effectiveness of thinking, but what we are most interested in is the possible effectiveness of *good* thinking. Making a case for this is much more difficult. It would be a lot easier to show that the modern world has been shaped mainly by the dilutions and corruptions of past good thinking. And to show that the expression of a really good thought nonetheless leads to its downfall. The sociology of religion, in contrast to religion itself, is sufficient evidence of this.

Well, there are other approaches. What sort of world would there be if the lines of order set out in good thinking were all withdrawn? We don't know. We can't imagine what such a world would be like. Probably it wouldn't be a world at all, but just a buzzing confusion. The notion of "a world" is after all a creation of thought. It may be a thought compromised and degraded by a lot of mindless action, but still a thought. We live in our minds—minds greatly affected by our bodies and bodily involvements—but still minds. From this reality we are led to an embarrassing fact—some minds are better than others. That is to say, not all books are worth reading, and some books should be studied, not just read.

Few will object to such propositions, although all such utterances are likely to be hedged by repudiation of the claims of "aristocracy" and the conceits of elitism. So long as the ground of human behavior is held to be self-interest, and only self-interest, any investigation of human distinction and excellence will be harassed by charges of this sort. Since Gandhi, however, another view of human nature has been gaining strength. The superior man, Gandhi declared, shuns privilege and rejects power. Good thinking is an endowment of the superior man. But clever and plausible thinking, which uses some of the forms of good thinking for purposes which may not be good at all, is possible for humans who have technical superiority, but only that, and this confuses the whole question.

There are other complications. Back in 1935, one of the most distinguished thinkers of our time, Lewis Mumford, said in a letter to Van Wyck Brooks:

> . . . I trust you are back in stride with more to show for the last few months than I can. At least you have not been spending your time in aimless Pullman cars, like a Thomas Wolfe hero, have not been dispersing yourself in unimportant lectures to vacuous people, have not been showing, as I have, latent capacities for mob oratory in addressing groups on War and Fascism. One is damned in one's work, not by the cohorts of Satan, against whom one is on one's guard; but by all the little Children of Light who bait one with their good intentions and make one surrender one's proper virtue in the interests of *their* virtue, as if, in the long run that could be more important. Henceforward, I shout to the heavens, I shall deliver no more lectures on behalf of good causes: I am the good cause that denies the need for such lectures. Avaunt! importuning world! Back to my cell. . . .

Born in 1895, Lewis Mumford is now a ripe eighty-five, with a mind undulled by the onset of years. He has written a number of books, some of them watershed studies of the meaning of our time, and has exercised an immeasurable influence on the intellectual life of the twentieth century, especially in the area of arts and architecture, and in the now growing field which seeks understanding of how machines and technology affect human beings. He regards himself, however, as essentially a writer—that is, a thinker who sets down what he thinks. It is fair and

necessary to call him an original thinker, which means that while he has absorbed all the major intellectual and moral influences of the age, he forms his opinions and convictions by consulting himself. This gives his writings a noticeable strength.

What is it to consult yourself? In this case the question is best answered by a reading of Mumford's latest book, *My Works and Days* (Harcourt Brace Jovanovich, 1979, $13.95), which is the story, he says, of his mind in the making—extracts from his works through the years, plus a lot of hitherto unpublished notes, and some commentary connecting things up.

A book like this leads to long thoughts about men such as the writer. They seem to belong to the Saving Remnant of mankind. They represent both the conscience and the vision of the age. They are children of our time—how else could they communicate with us?—but what they think and do seems in some measure guided by a timeless perspective, something we can only call insight, for lack of a better word. Some periods of history have more of such individuals than others—Periclean Athens, Florence under the Medicis, Elizabethan England, and the days of the Founding Fathers in the United States. They are harder to identify and list in the time of a Mass Society, but we have them today, scattered around, in various callings and roles. Gaetano Mosca spoke of them at the end of his classic, *The Ruling Class:*

> Every generation produces a certain number of generous spirits who are capable of loving all that is, or seems to be, noble and beautiful, and of devoting large parts of their activity to improving the society in which they live, or at least to saving it from getting worse. Such individuals make up a small moral and intellectual aristocracy, which keeps humanity from rotting in the slough of selfishness and material appetites. To such aristocracies the world primarily owes the fact that many nations have been able to rise from barbarism and have never relapsed into it. Rarely do members of such aristocracies attain the outstanding positions in political life, but they render a perhaps more effective service to the world by molding the minds and guiding the sentiments of their contemporaries, so that in the end they succeed in forcing their programs upon those that rule the state.

To give this idea a wider setting, and to show that in distant epochs of history, this conception had currency, we quote from the Neoplatonic Christian bishop, Synesius (375-414 A.D.), who wrote in *Wisdom of the Egyptians:*

> For there is indeed in the terrestrial abode the sacred tribe of heroes who pay attention to mankind, and who are able to give them assistance even in the smallest concerns. . . . This heroic tribe is, as it were, a colony from the gods established here in order that this terrene abode may not be left destitute of a better nature. But when matter excites her own proper blossoms, to war against the soul, the resistance made by these heroic tribes is small when the gods are absent; for everything is strong only in its appropriate time and place.

In the opening chapter of *My Works and Days*, titled "Prologue to Our Time," Mumford wrote about some of the "proper blossoms" of matter—or materialism:

> On the bureaucratic side, Adolf Eichmann, the man who faithfully carried out orders from above, is the veritable Hero of Our Time; and a thousand other Eichmanns stand ready to wipe out not just the Jews but the larger part of the human race as soon as the order comes through from the Pentagon or the Kremlin. There are Hitlers in every war office, and Eichmanns in every rocket center, in every aircraft carrier and submarine, in every nuclear and chemical and bacterial laboratory, as the consistently atrocious practices of the American military forces in Vietnam demonstrated.
>
> Those of us who have lived to see this last transformation know the worst about our own countrymen—and so about the human race. The better world my generation grew up in was not wholly a complacent illusion, but we were scarcely equipped to reckon with the massive potentialities for evil that civilization, by its own dynamism and cold audacity, had expanded. . . .

The vigor of Mumford's response to this ominous spectacle, and his stance as a thinker, are reasons for reading him, as a member of the

"moral aristocracy" Mosca refers to, and perhaps one of Synesius' "tribe of heroes":

> From first to last, my own beliefs challenge those who think there is no turning back on the road that mankind is now travelling, no possibility of changing our minds or altering our course, no way of arresting or redirecting the forces that, if they are not subdued, will bring about the annihilation of man. For the last thirty years, then, I have been forced, much against my native interests and talents, to confront the suicidal nihilism of our civilization, for I believe that only those who are sufficiently awake to the forces that menace us and who have taken the full measure of their probable consequences will be able to overcome them. It is not as a prophet of doom but as an exponent of the Renewal of Life that I have faced the future. . . . For those who share this vision, life itself is the central good and the source of all other goods: life in all its organic manifestations, and even in its dismaying contradictions, its ultimate tragedies—life embracing not alone love, courage, human-heartedness, and joy but alienation, frustration, and pain.
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> Now what I mean by "life" cannot be packed into a single sentence or even a single book. Jeffery Smith, my onetime professorial colleague at Stanford, used to tell of a simple farmhand who had battled against odds all his life, raising a large family while barely able to keep his head above water. If any man had a right to be disheartened or bitter over his fate, it would seem to have been that man, yet he never despaired. Then, a little before he died, a visitor found him in a grievous condition, with an ailment that could no longer be fought off or grimly concealed. "Yes, my boy," he said. "My time has come. The feast of life will soon be over."
>
> *The feast of life!* This phrase, uttered by a man who had faced more than his share of the burdens and miseries of life and seemed to have had too little of its rewards, is an affirmation that should confound a thousand nihilisms. The spirit is at one with the faith Whitman proclaimed, in his acceptance of evil as well as good, in his readiness to count no aspect of life too mean, too vile, too repulsive to be reckoned as part of its meaning and value. And did not Plotinus say that it was better for even an animal to have lived and suffered than never to have lived at all?

While able to laugh at himself, Mumford took his work seriously. He was a man with a mission, and now, looking back over some fifty years, he is able to regard his life as a "work." The sense of mission comes out again and again in his letters. He wrote to Van Wyck Brooks in 1922:

> Did you see Pierre de Lanux's article on the founding of "La Nouvelle Revue" in the *Evening Post* last week? I am quite sure that we could establish a fertile center of ideas in America, too, if we could only find two or three capable people who are not afraid to live on short commons and look physical destitution in the face. The American notion that nothing can be done without a gross financial subsidy is a superstition: what we need is a spiritual subsidy, and there is quite enough capital in our Musical Banks to supply us with that!

Again to Brooks in 1936:

> Now war is as grim as the assembly line of a Ford factory and as relentless as a financier: the morals of the rattlesnake are everywhere. Sometimes I am tempted to stand up on my two legs and preach one last desperate sermon to my friends and brothers: one frantic gesticulation toward safety before some putrid fool touches off the dynamite. When we were young we could ask ourselves: What can we conquer? Now we can only ask: What can we save?

Earlier, it was asked, What does it mean to consult oneself? A passage Mumford wrote for the *Saturday Review* (May 10, 1930) suggests an answer:

> Instead of beginning with a portentous sterile physical universe, and finally discovering man, with all his aims and values, as a pathetic, ludicrous by-product at the end of it, let us begin with the human personality itself. The abstraction of an "independent world" from the ego itself is the result of a long difficult process which begins in the cradle; and while this abstraction is a genuine aid to growth, the present convention of regarding the human personality as merely an insignificant fragment of that world is quite as false as the infant's original hallucination of creating milk and warmth out of the void merely by crying for it. We find ourselves, at the very beginning of our adventure, in a state of complicated interdependences which unite us not merely economically and spiritually with other men and societies, but to remote parts of the world and to physical conditions which were established long before human forms appeared upon the earth. Value and significance are the specific marks of human society: hence our task is not merely that of

maintaining or reproducing the species, but of enlarging the domain of value and significance.

Mumford is one of those responsible for calling attention to the central importance of symbols in human life (others who did this earlier were Ernst Cassirer and Carl Jung). He reproached the anthropologists for studying only the tools left behind by primitive man, while ignoring the symbols and beliefs of which there is ample evidence throughout antiquity. Man as thinker is fully as important as man as builder—or more important, as a comment on architecture (written in 1926) will show:

> What hinders the development of a symbolic architecture, which will do for our own age what Chartres did for the thirteenth century, is, primarily, the fact that we live in a spiritual chaos. There are scarcely any values that a Catholic and a Ku Kluxer and an honest atheist, a scientist and a stockbroker, a Californian and a New Yorker hold together and deeply respect. For the sake of conventional agreement we have turned toward the past, particularly during this last century, in order to conceal our own spiritual barrenness and timidity; but a formal rehash of the past, without love, faith, or understanding, has not even the virtue of self-deception. And we are not in much better shape now when we take the lowest common denominator of our life today, and attempt to worship the machine. We can, in a fashion, symbolize dynamos and airplanes, by structural forms that are subtle repetitions of these contraptions, but this is a crude and insufficient source of inspiration; for genuine symbolism is the translation, not of a fact, but of an idea. Eric Mendelsohn has designed a hat factory that has the outlines of a hat, and Raymond Hood has designed a Radiator Company Building which has the suggestion of a radiator; but neither of these efforts gives any hint as to how we shall build a library, a theater, or a school. One trembles at the prospect of a Library in the form of a book.

Mumford reads architecture as others read books. He said in a letter to Waldo Frank (1938):

> It is for lack of some vivid sense of what life is worth living for that the revolutionary cause has gone astray: its courage wasted, its hopes deflated. I do not listen to the Trotskyites, for their speech bears the same accents as their Stalinist enemies. But I believe my eyes and I was frankly horrified by the architectural exhibition that the U.S.S.R. has been showing in Detroit. Nothing that Trotsky could say against Stalin's regime is half as eloquent as the self-confession of this architecture: the same bastard classicism that the financiers and imperialists of Nineteen Hundred in America conjured up as emblem of their power. Only one thing was more sickening than these dead forms: the dishonest apologetics that accompanied them. The whole show stank; alongside it, Napoleonism, coming in the wake of the French Revolution, had a noble vitality. My nightmare now, which I scarcely dared confess to myself a year ago as even a possibility, though in my heart I knew it existed, is that Stalin's Russia and Hitler's Germany and Mussolini's Italy may form a block. Perhaps the chief obstacle to this, the only thing we can count on, is Hitler's invincible, demonically inflated irrationality. A pleasant thought. . . .

Mumford's social criticism is of a piece with his organic conception of human life:

> My principal quarrel with the Russian communists, for example, is not so much over their ruthlessness in achieving the new order, as over their acceptance of half the fallacies of the mechanistic system of thought which happened to be dominant when Marx formulated his revolutionary dogmas. This Communist ideology subordinates all human values to a narrow utilitarian scheme, as if production had no other end than production, and the result is a caricature of both society and the human personality. The orthodox communist has not escaped the mechanistic prison by taking possession of it and assuming the duties of a jailer; nor does the jail look more inviting when it is called a Proletarian Palace.

Lewis Mumford has written, counting this one, twenty-six books, and there is another work to come, his autobiography. What should one read? One might begin with *Pentagon of Power*, the second volume of *The Myth of the Machine;* then go to *The City in History*, which the author thought of as a kind of sequel to George Perkins Marsh's *Man and Nature;* and then read *In the Name of Sanity*, which came out in 1954. After *Technics and Civilization* (1934), which might be called Mumford's major work, save for the fact that his other books are equally important and impressive, the reader will be on his own.

To read Mumford thoughtfully is to encompass a century of history, and of course more. In *The Revolt of the Masses,* Ortega has a chapter called "The Height of the Times." One who lives at the height of his times is one who is deep in the grain of his age and at the same time stands above it. He is both participant and spectator. Mumford has lived and worked at the height of our times for many years. He has been in it and of it, but only of the best of it. His grasp of the human situation seems partly conveyed by a letter to Christina Morgan, written in 1945

> There may come a time, perhaps it is drawing near, when these private experiences will coalesce and create a common mythos. Until that moment comes, we must mark time. . . . New Words can be coined by a poet; new rhythms created; even a new language and a new myth, up to a point, can be communicated by him; but it is precisely at the point where Blake begins to *portray* his new Gods, and where his poems pass into the realm of the visual, that he begins to be obscure and darkly undecipherable.
>
> I have a parallel problem to solve for myself, dear Christina, when I work on my new book; for desperately though the world needs a common faith now, I do not see that faith arising out of a return to Christianity or Hinduism or any other single "ism," no matter how freely we may seek to reinterpret it. Faiths or myths cannot be created out of whole cloth by conscious willing; and without stepping forth as a Messiah—a role for which both Messiah—a role for which both inexperience and a sense of humor unfit me—I must somehow conjure up a rational alternative which will lie midway between the cracked bottles of past orthodoxies and the hot molten glass into which one blows one's own breath. . . .

REVIEW
THE NEW ALCHEMIST ARKS

CHRISTMAS is the customary time for giving books to one's friends, but it's too far off for the book we have in mind. Simply on its merits, then, *Tomorrow Is Our Permanent Address* (Harper & Row paperback, 1980, $4.95), by John and Nancy Todd, is a book to give to others because it fills a serious need and is at the same time a pleasure to read. It combines profound thinking with a program of action on the land. John and Nancy Todd are two of the founders of the New Alchemy Institute on Cape Cod, an enterprise formed to answer the question: "Are there benign, ecologically viable alternatives to the present polluting, capital-intensive, and exploitive methods for sustaining human populations?" Or, "Are there biological analogues for the industrial system?"

The book is about the two "Arks" conceived, designed, and constructed (with the help of two solar architects, Sean Wellesley-Miller and Day Chahroudi) by the New Alchemists—a big one as a research and demonstration center installed on Prince Edward Island in Canada (in the gulf of the St. Lawrence), a smaller one with living quarters for four people, at the New Alchemy headquarters near Woods Hole on Cape Cod.

> To date, both Arks are functioning more effectively than their initiators originally dared hope; sailing warmly through bitter winters, producing satisfying harvests of plants and fish, and at the same time maintaining their ecosystems in healthy equilibrium. As technology they represent innovations: in biological climate control, energy conservation, and intensive, indoor ecological cultivation of food. But these structures have a symbolic significance that far outweighs their technological accomplishments. As a tangible and practical working manifestation of systematic thought, the bioshelter gives rise to an image of the possibility for a changing relationship between modern or civilized humanity and the natural world.

The Ark on Prince Edward Island, intended for public education and research, cost a lot of money which was supplied by the Canadian government. The Cape Cod Ark is within the economic reach of practically anyone who can afford to build a home, these days, and it has features which might be adaptable to other forms of construction. The Ark is solar-heated, wind-powered, and provides protein food in fish raised in heat-maintaining pools or reservoirs, and plant food from a solar greenhouse, with all wastes turned into nutrients for the fish and the garden.

Could other people do similar things? The Todds say:

> In our specialist society we tend to underrate the capacities of a majority of people. There is a deep human tendency to seek a dialogue with nonhuman organisms. While it often appears in atrophied form in pet owners, for example, the tendency is almost universal. Plant-filled windows of high-rise apartments attest to this. Although feeding a dog from a can or watering a plant is hardly tending a complex ecosystem, there are people who maintain vegetable gardens or tropical fish aquaria, and in so doing are, in a simplified form, caring for ecosystems. The step from a garden or aquarium to a bioshelter is one of degree, not kind. In 1978 over half the householders in North America had some kind of food garden. There are many million tropical-fish hobbyists. Both these facts suggest that people are willing to work with ecologies based on the same principles as exist within the Ark. These people represent a broad cross section of society.
>
> There is yet another way of looking at our contention that the prerequisites for bioshelter living exist widely in our culture. A few generations ago, the majority of North Americans lived directly off the land. Although sound stewardship was not a characteristic common to these rural agriculturalists, most of them had enough biological savvy to operate highly diversified family farms and homesteads and to build the culture we have inherited. Most people knew how to sustain themselves. If the need or desire were broadly felt, in a few years enough modern ecological, engineering, electronic, and agricultural knowledge to manage a bioshelter could be taught.

The Arks were produced by scientists, but this should be cause for encouragement rather than chagrin. The New Alchemists are reformers of science, animating it with humanist philosophy

and a spirit more alive than that found in most of the present thinking of humanists. They are redefining science and setting an example of what scientific practice ought to be. Nor does their scientific background mean that what they do cannot be emulated by others. While scientists need to make a lot of tests, proving the validity of what they say and do each step of the way, for most other people common sense would replace these professional obligations. What comes out in this book is the transforming effect of working intensively in conscious and deliberate collaboration with nature, in behalf of human community and the common good.

Writing of a winter day on Cape Cod, the authors say:

> . . . even after many seasons, with the novelty long gone, we find it impossible to be blase about being close to our bioshelters. The earthy smells and the greenness are wonderfully reassuring. The earth is, after all, only asleep. Winter is not absolute and eternal, however fierce and adamant it seems. And we have a distinct feeling of satisfaction—bordering at times, we're afraid, on smugness—that apart from the fossil fuels used once in manufacture, this climatic outpost of a garden is not based on an ongoing and illicit consumption of a nonrenewable resource. Nor is it robbing other people of their share of that resource. Nor—again except during its manufacture—is it a source of harm to our area of the Cape. And beyond the unquestioned economic and gustatory pleasure, there is an unqualified joy in knowing we can provide our family and occasionally our friends with fresh salad, herbs, and vegetables grown without poisons. Knowing the amount of unavoidable toxicity in the environment has always made us anxious to give our children food that is as untainted as possible.

A solar greenhouse and aquaculture unit installed on Cape Cod became the model and inspiration of the Arks:

> Originally and rather ignominiously called "the Six Pack," this small greenhouse is almost entirely closed and protected to the north, while a great deal of effort is made to capture incoming light and heat from the south, maximized by painting the interior walls white for reflection. The Six Pack has withstood three winters, two of them unusually severe, without the need to burn any fossil fuel, gracing us all the while with greens, herbs, and hardy vegetables. In addition, it manages to produce early strawberries and thousands of seedlings for the garden. . . .
>
> From the Six Pack, we proceeded to the design and building of the Arks.
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> Both Arks have more than fulfilled our early expectations in terms of climate control and productivity. The yields from our gardens and from our fish ponds, one of which has netted harvests ten times greater per unit volume than any other known standing body of water, have far outstripped our projections. Because of this, we feel that there really are workable ecological alternatives to industrial technology, and that should we choose to follow them, there is a sustainable future within our reach.

What do the Arks look like?

> A bioshelter that is a human habitation is not just a house, although superficially it may look quite similar. From the north side, the Ark on Prince Edward Island resembles an architecturally conservative house that is made more modest by the presence of an earthen berm that partially hides its bulk. But the differences between the Ark and an orthodox house are many and fundamental; the Ark is a microcosm designed to serve a range of human needs not now provided by housing. It is modeled on an ecosystem. Its architecture is solar. In many respects the Ark is the antithesis of the contemporary house. Instead of continuously and wastefully consuming finite substances such as petroleum and other fuels, it attains its climate from renewable energy sources, namely the wind and the sun. . . .
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> The existing structure of housing and housing networks, with sewage systems that dump human wastes in lakes and rivers, and inefficient heating with finite substances such as natural gas that require extensive distribution networks, can be compared with a bioshelter which is a whole, semiautonomous entity. . . .
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> Household dwellers normally consume foods that have been stored for long periods, elaborately packaged, highly processed, and transported over long distances, particularly in winter. . . . The Ark is designed to produce significant amounts of food, flowers, and young trees. Much of the Ark research has been, and will continue to be, directed toward devising internal food-producing ecosystems that will provide a viable economic base for bioshelter

dwellers. Although an Ark is more expensive to build than a conventional house, the fact that it is a combined residence and microfarm with its own internal economy helps it to pay for itself.

For the Ark to really take hold, a push from necessity will be needed. John and Nancy Todd are well aware of this. Nor is the idea of the Ark presented as the one or even "best" way to live on the side of life. The great value of the work of the New Alchemists is not so much in its achievement—which is certainly impressive—but in the example of what talented and energetic people can do when they get seriously to work.

Finally, the language used in *Tomorrow Is Our Permanent Address* seems prophetic of further human possibilities. The important nouns and adjectives have the feeling-tone of cooperation, collaboration, and friendliness. This is not the least of its contributions.

COMMENTARY
BELLAMY'S ACHIEVEMENT

How does one identify the "generous spirits" spoken of by Mosca or the "heroes" of Synesius (see page 2)? Tracing their influence is a difficult task, as Arthur Morgan discovered when he tried to convey to his readers, in his Preface to *Edward Bellamy* (1944), something of the effect of the work of that great American thinker and reformer on subsequent generations. After listing a dozen or so of those who acknowledged that Bellamy's ideas had given direction to their lives, Morgan said:

> Only rarely, and often by chance, do we have a record of the influences which were most important in setting a man on his life course. If we could have a complete census of the men and women prominent in social and economic thought in America and Europe during the past fifty years who received their initial social vision from Edward Bellamy, the list doubtless would be greatly extended.

Among those who declared the impact of Bellamy's thinking were John Dewey, Charles Beard, Thorstein Veblen, William Allen White, Stephen Leacock, Mark Twain, and Bernard Shaw. Attempting to explain, Morgan wrote:

> In the long run the significance of his social and economic theories will be judged partly by the fact that they are the product, not of a one-track mind, but of a ranging and universal type of personality—almost a modern Leonardo da Vinci. . . . It was the genius of Edward Bellamy that he took Utopia out of the region of hazy dreamland and made it a concrete program for the actual modern world. . . . His picture of a better world, and the hope and expectation of its fulfillment, were transmitted through the years until those who looked to him as the source of their initial inspiration constituted an important part of the army of social progress.
>
> The most immediate handicap to human progress is lack of vision and of expectation, hope, desire, and will, rather than lack of those forms of intelligence which are expressed in formal reasoning. Unless a picture exists of what might be, formal reasoning will concern itself with other and familiar issues. While it was Bellamy's great contribution to provide that vision, he did it with such responsible consistency, and with such creative inventiveness, that his work is not only an inspiration, but in many respects is a practical guide to the organization of public business.

Bellamy was an indigenous American socialist, but his underlying conviction gives a meaning to this conception which is beyond politics:

> It is to the credit of Bellamy that in his opinion the unification of opinion which is to so change "human nature" is not to come by political compulsion or by dictatorship, but by an intense though informal revival of interest in human values, and by the processes of peaceful and voluntary action on the part of large numbers. It is to his credit, also, that he indicates great restraint in the dissemination of official ideas. In his utopia agreement arises out of experience and education, rather than from imposed dicta. The processes of Hitler, Mussolini, and Stalin may seem more rapid, but the process of Bellamy, which to a considerable degree expresses the genius of American idealism, is sounder and more persistent. It provides a free play of outlooks and less arbitrary suppression of elements which may have great value, but which are slow in maturing. . . . To make a great and real picture of what might be, so that men may have a basis for comparison, and therefore a basis for a wholesome aspiration, is a significant achievement. That contribution Bellamy made.

CHILDREN
. . . and Ourselves
THE INFORMATION ENVIRONMENT

IN the *Nation* for Jan. 19, Neil Postman recalls Marshall McLuhan's declaration that "the medium is the message," elaborating its meaning by describing how television affects its watchers. Most critics of television, he says, focus on the content of programs, ignoring the fact that *all* the ways of experiencing or "knowing" inevitably shape human attitudes. He continues:

> A message denotes a specific, concrete statement about the world. But the forms of our media and symbols do not make such statements. They are rather like metaphors, working by quiet but powerful implication to enforce their special definitions of reality. Whether we are experiencing the world through the lens of a language, statistics or a television camera, our media-metaphors classify the world for us, sequence it, frame it, enlarge it, reduce it, color it, argue a case for what the world is like. We do not understand anything the way it is but only as our available means of discovery and expression reveal it.

Our five senses, of course, have the same effect. The world, we begin by saying, is the way it looks and sounds and feels. But then, if we attend to the scientific account of "reality," we learn that appearances are deceiving, and we are obliged to reinterpret the reports of our senses in, say, Copernican terms. (One soon sees why scientists rely so much on mathematics. No matter what the senses reveal, or how theorists explain their deliveries, numbers are unaffected. Numbers, which are totally subjective, produce totally objective conclusions—free, that is, of the biases introduced by fallible humans.)

Mr. Postman would like us to undertake a Copernican criticism of the media. How does TV represent to us the world of experience?

> Television, for a start, increases by an as yet incalculable factor the amount of visual stimulation and iconography available to the population, and by so doing, reduces the importance of language. Although human speech is heard on television, and on rare occasions assumes importance, people mostly *watch* television. And what we watch are continuously changing images, any single image rarely lasting more than three seconds. (The average length of a shot on a TV commercial is two seconds.) Moreover, not unlike movies and, in fact, dreams, the television image places the viewer in the center of the action in a continuous present. There is no analogue in TV imagery to the past tense in language, which is why language must be used to indicate that a videotape one is seeing was actually made weeks or months before. For these reasons and more, television does not and cannot convey ideas, in the usual meaning of that word. Ideas are formed in words; they are statements about the world or statements that connect statements. One may say of ideas that they are true or false, logical or not, supportable or weak. But TV imagery is not propositional or logical. It is presentational. It fills our minds with images of experience, not commentary on it.

What about the "good" programs? Postman takes for example a presentation commonly regarded as excellent—J. Bronowski's *The Ascent of Man.*

> The attempt, at least, in J. Bronowski's case, to offer a theory of scientific progress fails because pictures have no thesis. Their level of abstraction is concrete and invariable. While Bronowski *talked* his thesis as supplement to the images, his talk could not compete with his pictures. (In the competition among media, talk is always defeated by pictures.) In the end, what the audience experienced was a series of discrete, disconnected images which had no history and suggested no principles.

Various questions cry out for answers, among them—

> Does TV, for example, work out to undermine language, as Socrates thought (correctly) that writing would undermine memory? Given the fact that most people experience TV in physical and psychological isolation, does TV undermine the idea of public man and social responsibility? By putting the same images into everyone's mind regardless of age, sex or education, does TV attack the basis of political hierarchy and authority? Is TV, like the alphabet and printing press, a democratizing medium, or because of its one-way direction, does it favor authoritarianism? By compressing time to an extraordinary degree, does TV alter our expectations

of the rate of social change? Through its stress on immediacy, does TV imagery undermine our sense of history?

There are other ways to think about the effects of the communication media. How, for example, do "speed-of-light" communications affect diplomacy? Some inquiries are not likely to be pursued, whatever their importance:

> One strains to imagine, to take another example, where the members of the editorial board of the *New York Times* would find the time or knowledge to contemplate the psychological and social effects of placing twelve to fourteen unrelated stories on the front page of their newspaper. Or, to take a similar case, can one expect NBC's news department even to wonder about the metaphor of the world that is projected by a typical television news program which might include a dozen thirty-second commercials interspersed among ninety-second stories of earthquakes, fires, rapes and football stories? Is this a global village? Is this an open-air lunatic asylum? Is this an electric circus?

Here we are on earth, set down by life, chance, or the requirements of some hardly suspected Promethean mission, equipped with our senses and mind, and expected to find our way through the maze of experience. We attempt to make sense out of it all, and to evolve purpose from that sense. The question, then, is: Do the modern devices extending and altering perception, and the communication of perception, help or hinder the human project?

With this sort of question in mind, Mr. Postman asks about intelligence tests and what ought to be said about them. Lately these tests have come under attack, but the criticism, he suggests, misses the point:

> To be sure, education critics have made abundant attacks on these tests, but always by directing their observations at deficiencies of content: the questions are ambiguous, the questions are culturally biased, the answers are not made public, etc. But what is important about such tests does not lie in the details of their content, and laws to make the answers public do not touch on the issue the tests raise. What is of major cultural interest here is that such tests put forward a particular metaphor of the mind of which most people seem entirely unaware, the mind as a machine whose "output" is precisely measurable. It is a metaphor which permits us to say that your mind is a "126" or a "7.9," and which allows us to strip from the mind all dimensions of affect, motivation and purpose. Machines have no feelings about the tests you put them to, and we do not expect a machine to have an opinion on the purpose of a test. The question of a machine's motivation is irrelevant. We require only that our test-takers be reliable, by which we mean that the mind-machine will be more or less consistent in its performance and that its performance will produce an unambiguous number.
>
> That is why social criticism must begin as media criticism, by which I mean that human affairs are conducted under the sovereignty of symbols and media whose forms control the content of our thought and action. Just as the physical environment determines what the source of food and the exertions of labor will be, the information environment gives specific direction to the kind of ideas, social attitudes and intellectual presuppositions that emerge.

Mr. Postman's most recent book is *Teaching as a Conserving Activity*—which is probably meant to balance his earlier volume (written with Charles Weingartner), *Teaching as a Subversive Activity.*

FRONTIERS

Abroad, at Home, and Everywhere

FROM time to time the disastrous course of events creates an obligation to print horror stories. The sole virtue of a horror story is that it may hasten individual decision that the kind of world we have created is not worth saving or trying to fix up, and that it must be replaced by a better one. How to start doing this is the question asked by more and more people. Eventually it will obtain answers—Gandhian answers, one hopes.

Involved is a far-reaching change in the idea of the Good. It follows that regular attention to the prevalence of what is outrageously bad may be one way to help get the change going. That, at any rate, seems the justification for horror stories, of which we have three.

The first and most insistent is an article in the Feb. 23 *Nation* by Reza Baraheni, an Iranian poet, novelist, and critic. His title is "The Savak Documents"—of which the *Nation* has copies—dealing with the activities of the Iranian secret police ("Savak"). These reports are identified as "the routine paperwork of death—burial permits and autopsy reports of fifty well-known political prisoners who died, violently in most cases, during their incarceration." The article is accompanied by photographs of tortured bodies. After his analysis of the reports, Baraheni writes:

> Certainly the Shah was not so grandiose and evilly imaginative as Hitler in devising schemes for the collective slaughter of millions of men and women. But his plans matched the vision of a Dante when he imagined the *Inferno.* The Komite prison [one of three torture centers] was one of those infernos. Handcuffed and blindfolded, mutilated, wounded both physically and spiritually, stricken with massive paralysis, the prisoners crawled from their cells to the toilets to the torture chambers and back to their cells.
>
> The scale of the torment was staggering. At least half a million people have once in their lifetimes been beaten whipped or tortured by the Savak. In every household there is at least one person who was interrogated by the Savak.

While Amnesty International and other groups vouch for the authenticity of these and similar reports, the allegations of torture have been denied by the Government of the United States and by the Shah. The writer concludes:

> In the eyes of many Iranians, particularly ,the Ayatollah Khomeini, Carter's human-rights policy was a hypocritical ploy aimed at defending American stooges at the expense of a tormented and impoverished people. America's military equipment killed—both directly and indirectly. How then could the people of Iran forget what they see as the complicity of the U.S. Government in their thirty-six years of suffering under the Shah?

The second horror story is "The Food Monsters" by Daniel Zwerdling, in the March *Progressive.* Food prices, Zwerdling says, keep going up because the large corporations in the food business are interested only in making money, which means capturing markets and charging monopoly prices while spending millions on vast advertising campaigns. Mergers and take-overs are the means of acquiring and controlling markets. This writer says:

> *When you pay at the checkout counters, you're financing the food conglomerates' takeover campaigns.*
>
> Corporate strategists at Pillsbury yearn, they tell *Business Week,* "to do combat with multibillion-dollar giants such as General Foods and General Mills." So they plunk down $152 million and take control of Green Giant—and overnight grab a nationwide processed-vegetables market plus an extra half-billion dollars in annual sales.
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> R. J. Reynolds, the $4 billion cigarette, transportation, and petroleum empire, decides to branch out into food. Reynolds does not buy a few hundred acres and plant some seeds; it comes up with $621 million and seizes Del Monte, itself the archetypal multinational octopus that plundered banana plantations in the Philippines, pineapple plantations in Kenya, asparagus farms in Mexico, plus ranches, fisheries, and factories in two dozen other countries to build a billion-dollar-a-year empire as the most powerful producer of processed fruits and vegetables in the world.

Shoppers, Zwerdling says, are loyal to the most heavily advertised brands, even when prices go up and up. He asks:

> How much will you pay at the supermarket checkout counters to finance these inane advertising wars? On the average, six cents of every dollar you spend on processed foods will go directly to buy ad time on television and other promotion—but when you buy one of industry's hot-selling brands you'll pay far more. In a recent year, breakfast-eaters who bought Kellogg's Country Morning, a so-called "natural cereal" that better resembles crumbled cookies, paid thirty-five cents of every dollar merely to finance Kellogg's ads persuading them to buy it again.

There are critical studies of the pricing of foods, but they don't, Zwerdling says, ask the really important question, which is—

> How much are we overpaying for a national system of foods that are processed and synthesized and energy-intensive and propagandized in the mass media in the quest for booming corporate profits—and how much would we pay for a system of foods that are fresh and energy-conserving, and produced by decentralized concerns with the aim of providing Americans with the most satisfying, healthful, and reasonably priced diet possible?
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> Ask that question, and the corporate overcharges become awesome. How much are consumers paying in dollars—and anguish—as they succumb to such degenerative illnesses as hypertension, heart disease, and cancer that conglomerate diets cause?

In the December 1979 *Ecologist*, Edward Goldsmith, the editor, devotes thirteen large pages to answering the question: "Can We Control Pollution?" The brief answer is No—not by the means of control now attempted, which is sharpshooting with inadequate remedies for specific excesses. After a close look at a number of such attempts, he says:

> The more we know about pollution control and its problems, the more it becomes apparent that the only effective means of controlling a pollutant is not to generate it. This would mean giving up the goal of "material progress" and setting out to create a totally different non-industrial society, one in which economic and political activities were carried out on a very much smaller scale. . . .

The very real horrors Edward Goldsmith describes in detail are too complicated for brief explanation. Meanwhile, his gloomy conclusion is clear and accurate enough:

> Capital, energy and resource shortages and the growing cost of controlling human societies that are biologically and socially ever less viable, must bring to an abrupt end the particularly aberrant episode in the history of human affairs that is the Industrial Era. Indeed, it is global economic catastrophe that is likely to provide the only effective method of pollution control.