

THE POSSIBILITIES OF MAN

WRITING in the March *Harper's* about scientific meddling with the human organism, Horace Judson first dispels the illusion that test-tube babies, surgical modification of genes, and cloned duplication of identical human types ("10,000 Mao Tse-tungs") are in any sense immediate biological possibilities. He then turns to what seems to him the basic question: Why do so many find these predictions by brash scientific journalists disturbing? "The fears," Mr. Judson says, "are only fantasies." Why, then, "are they so strong?"

His conclusion is that, again, science is seeming to threaten the very meaning of being human. More than once in the past, he says, deep feelings about the nature of man, about who and what we are in essence, have been attacked or denied by scientific discoverers and experimenters:

The fear has been growing a long time. We have been told, so often, of the shock of the Copernican revolution to man's pride, but, more than that, there was the shock to his confidence that reality conforms to the firm message of the senses; and then the humiliation of the Darwinian revolution to man's pride, but, more than that, to his sense of the inviolability of his own form—we've been told of these historical events so often that we dismiss them. They happen fresh to every child of six and ten and twelve—the lesson that one must distrust the shapes of the world.

The reductive effect of scientific thinking and progress has increased for recent generations. The psychoanalytical teaching that the unconscious invades and rules most if not all of our decisions was, in practical terms, a dethroning of the conscious self; and after Freud came Skinner, who maintains that man is wholly shaped by external influences. In his conclusion Mr. Judson proposes:

The most difficult intellectual task of the last part of our century is to understand and come to terms

with the ways in which the individual is given his form and content—even to his unconscious—by societal forces, from without. The self itself is a dying metaphor, no more than a knot in a tangle, an intersection in the social network, a phantasm shaped by fields of force. . .

Now the revolution moves, with the new biology, to the container from the thing contained: from the self, to the crucible in which it smokes.

"I think," says Mr. Judson finally, "we are afraid of the plasticity of man." As a scientist friend of his put it:

"If we accept that man is not noble, not really a discrete entity, but rather a kind of pliable, malleable creature whose very structure can be modified to suit the ends of others, then our own self-image must begin to change. Instead of a collection of possibly exalted individuals, we become a glob."

This statement of the issue behind the issues of molecular biology opens up various directions of inquiry. If, interpreting spontaneous objections to regarding the human being as something to be remodeled by a scientific Procrustes—or a Dr. Frankenstein—we say that this insistence on shaping ourselves flows from high human integrity, it might then be asked: Well, what about the Copernican Revolution? Wasn't that a needed antidote to the obscurantism of medieval superstition? It's *true* that the earth revolves around the sun. Isn't it beneficial to know that the earth is not the center of the universe, and that our world may be but one of many, as Giordano Bruno proclaimed? Aren't such ideas in harmony with the latest pronouncements of the ecologists who show that we humans have interdependent and collaborative relationships with countless other forms of life, which we now need to recognize, understand and respect?

But the fact is that the Copernican doctrine didn't reduce man's idea of himself. It attacked certain limiting conceptions of astronomy and

physical nature and the theological superstructures erected on them. It simplified and at the same time extended our conception of the workings of natural law, giving opportunity for enlarging ideas of the human role and man's possibilities as tenant of a vastly expanded universe.

The reductionism associated with the Copernican Revolution, then, did not result from the heliocentric idea, but from the mechanistic conceptions propagated by Galileo, and later by Descartes and the followers of Newton—conceptions which by no means necessarily followed from the laws of planetary motion. If the lead of Bruno had been followed, instead of the physicalist conceptions spread by Galileo and the others, emancipation from Ptolemaic notions could have led to rich transcendental thinking about man's nature and destiny. Instead, the moral qualities of human beings were deftly removed from scientific recognition by Galileo's emphasis on the primary qualities of physical objects, while Descartes and his supporters urged that all life and activity could be explained by machine-like principles of motion—even the life of animals and man. Finally, by the nineteenth century, this way of thinking was so well established that Darwin's theory seemed to complete the circuit of materialistic explanation. Except for a few asides about man's moral qualities, Darwin taught that man is an animal whose life and being should be explained in animal terms. Although Darwin was himself a pious man, his vague spiritual conceptions could find no place in scientific thinking—in fact, care was taken by most scientists to shut out all such contaminating influences.

Meanwhile, what about the basic lesson of science, which is, Mr. Judson says, "to distrust the shapes of the world"? By this he means that the appearance that the sun moves across the heavens is delusive, that the evidence of the senses is not reliable, as science has demonstrated over and over again. A question, however, arises: But isn't science itself concerned with a refinement of the

testimony of the senses? And if this is so, how does one tell when even the refinements of sense experience ought to be distrusted? For example, it might have been right to trust, after verification, the evidence brought to our attention by Copernicus, Kepler, Galileo, and Newton, but wrong to embrace without questioning the mechanistic assumptions to which their discoveries have led, and which now pervade the thinking of many present-day biologists.

The intellectual history of the West has been dominated by a passion—indeed, practically a lust—for certainties to which, as yet, we have hardly earned the right. The insistence on certainties in religion took the form of dogmas enforced by the Holy Inquisition and the union of Church and State. The reaction to these long and bloody oppressions adopted the crude weapons of aggressive materialism, making confident declarations that the experimental methods of science reveal no trace of either a deity in the heavens or a soul in man. But actually, all that science had demonstrated, so far as religious ideas were concerned, was that the cosmological doctrines which the Church had adopted had no foundation in natural fact. No "proofs" concerning the existence or the non-existence of the soul have ever been offered by Science, which proceeds on assumptions which leave the data of such considerations wholly out of account.

If this is the case, then what, it should be asked, *are* the data concerning the reality or unreality of the soul?

To consider this question, it may be helpful to begin by being extremely elementary. On a common-sense basis, then, soul is a name for conscious intelligence, moral awareness, and all those longings, qualities, and tendencies which cause human beings to think transcendental thoughts, seek comprehensive meanings, and pursue avenues of life which promise the most fulfillment in terms of ideals and vision. The soul, in brief, covers very nearly all that we mean when we speak of identity. The core conception is

selfhood—selfhood as a unity of awareness that finds expression in the qualities of soul.

If, then, soul is the defining reality in human beings, when Mr. Judson says "we are afraid of the plasticity of man," he means that the integral consciousness of human beings resists the reduction of its identity to a collection of replaceable or externally modifiable parts. When he says that the Darwinian revolution was a humiliation to man's pride, he might be suggesting that the spiritual reality in human beings finds the shaggy anthropoid an unacceptable ancestor, and rejects in moral aversion the Naked Ape doctrines of certain present-day ethologists.

No doubt we should like to have definitions of soul offered in conventional scientific terms, but is this possible? Where is the conceptual language in science for speaking of subjective reality? And can anything besides the terms of subjectivity be used in a consideration of soul? One might be able to develop a "shadow language" reflecting, although reductively, the activities of consciousness, and say something more or less "scientific" by this means, but this still leaves soul itself a matter of speculative inference. Work done in ESP might be said to fall in this category. The proposition defended here is that if one speaks about the soul, offering evidence of its reality, one is obliged to use the language of consciousness. The evidence for the reality of the soul, in short, is essentially subjective and it is self-defeating to adopt any other view. Each human puts this evidence to himself and makes up his own mind. Surely this is an inquiry in which he should follow no other authority or guide.

There are, however, some rather impressive statements by those who have pursued their own investigations. Many of these statements are gathered in a book called *The Human Situation* (Galaxy paperback). The author, W. Macneile Dixon, was a scholar who from personal conviction felt it necessary to write a book on the immortality of the soul, using all the riches of

ancient and modern literature on the subject. The book is especially recommended as antidote to Mr. Judson's conclusion that "The self itself is a dying metaphor, no more than a knot in a tangle." This summary expression may generalize the modern scientific view, but there are other views, by no means "dying" ones. In a chapter titled "Ourselves," Dixon examines the mechanistic idea of man:

We are asked to believe that the self is "an orchestra without a conductor." I say nothing of the consequences of this doctrine. Truth, if it be indeed truth, can defy consequences. With speculative theory it is rather different. And you cannot overlook that such a declaration is destructive of all responsibility. "Without personal identity," as Bradley said, "responsibility is sheer nonsense." Passing thoughts cannot be appealed to or denounced. They cannot be called to account, praised or blamed. They cannot even be spoken to. . . .

It is an open secret that psychology has failed to dislodge the soul. The beleaguered fortress has not surrendered. The worst psychology can do, as Professor James allowed, is "to rob it of its worth." Its worth or value is now the matter in dispute, whether it be rooted in the universe of being with sufficient firmness to outlast the passing hour, or, like the other appearances by which we are surrounded, will presently vanish into "the infinite azure of the past." . . .

The self in self-consciousness both is and knows itself to be—being, as it were, two persons in one. Nevertheless, "Although a soul," as wrote Leibniz, "may have a body composed of parts, each of which has a soul of its own, the soul or form of the whole is not composed of the souls or forms of the parts." Reflect for a moment, and you must allow that the whole, whether it be a machine or a living creature, may enable you to understand the parts, but the parts will never enable you, however deeply studied, to understand the whole. The soul has knowledge of its successive states or phases, a knowledge not coincident with the states themselves; neither is it a member of the procession, nor yet the procession itself. . . . The soul is not individualised by the parts of the organism. It provides, not receives, the unity. And though you may after a fashion account for the body you cannot account for the "I's" attachment to that particular body. Why should this be my body,

this among ten thousand times ten thousand others? Why, in short, should we be ourselves?

Dixon finds no easy answers, but no easy rejections, either. He boxes the introspective compass with such questions. He distinguishes between the realities of the external world and the realities of mind or soul. Knowledge is the currency of the soul, and—

Knowledge has no spatial relationships. "The light," as Fichte said, "is not without me, but within me, and I am myself the light." That is, I have in me something not given by sensation. I am also there with my knowledge. . . . And some men seem to bring with them into the world a prodigious amount of knowledge. Where did Pascal as a child acquire his knowledge of mathematics or Mozart his knowledge of music? . . .

Whatever it be, this entity, this I, this being that cares for truth and beauty, the haughty, exclusive, conscious soul, its sense of personal identity survives all assaults. You may analyze it, with Hume, into a series of disconnected thoughts and feelings, but its unity reasserts itself in reviewing the series into which you have attempted to dissect it. In Hegel's words, "I have many ideas, a wealth of thoughts is in me, yet I remain, in spite of this variety, one." There is then something in us which nature has not given, for she had it not to give. Selfhood is not a contingent entity, but the representative of a metaphysical and necessary principle of the universe, a part of its essential nature, a constituent of reality, nor without it could the Cosmos have attained to recognition, to full consummation or true being. Experiencing souls were a necessity if a universe in any legitimate sense there was to be. Such is the soul's superlative standing in reality. Beyond logic and reason, its essence "tends to existence, since the world, though it contain many things unnecessary to its continuance, could not without the appreciation of conscious selves have come to life or be what it is. In the absence of these sensitive points, it were of no account, and virtually nothing. It is from this ground that the towering importance of the soul can best be seen and estimated, as the only watch-tower from which creation throughout its circumference and in all its parts and qualities can be observed and known.

It is a final act, as Dixon says, that our knowledge that the world exists, that there is a world at all, rests upon the testimony of individual selves or souls. This, then, is the deep conviction

that hides somewhat shyly behind our often diffident withdrawals from the biologists armed with scalpels and X-rays and gene maps, who tell us they can make us into another sort of men. When Mr. Judson says that "the self itself is a dying metaphor," he but reports on an abiding but sadly weakened idea which we have very nearly allowed some specialists in physics and chemistry and biology to talk us out of. They are men whose engrossing technical preoccupations have caused them to forget themselves.

Think, if we should adopt the view of Dixon, how different would be our response to, say, proposals of "genetic engineering." Along with an illustrious line of thinkers, Dixon was totally convinced of the law of rebirth. With Wordsworth, he would say that our birth is a sleep and a forgetting—that we come on an inner journey from afar, trailing clouds of glory—or sometimes shadows of ignominy—and, being born, start anew to work out another destiny, forge a better future. Who, thinking this of human beings, would count himself wise enough to meddle with the sex of an offspring, in view of the complex ecology of character and organism that is almost certainly involved in the natural arrangements provided? Mr. Judson's remark concerning the immeasurable presumptions of "cloning," applied to humans, is somewhat pertinent here:

What would cloning be used to produce? Soldiers? The war would have to be twenty years away. Einsteins? But mathematical geniuses and violinists, we know, are the offspring of Jewish mothers—and you can't get them from a jar.

We may not feel sure that Dixon—along with Plato, and Buddha, and an illustrious company of others—has the truth of the matter; but neither do we know that he does not. The question, "scientifically," is wide open; and for a great many people in the world the reality of the soul is a primary fact of life.

But why, then, if the soul is a fact in superior nature—invisible or transcendent nature might be

the way to describe it—should human beings reveal so much "plasticity"? Why are they so very different, one from another? And why, parenthetically, is it impossible, as geneticists from Raymond Pearl to P. B. Medawar declare, to improve the human species by selective breeding?

By reason, one could answer, of the primary and prevailing reality of individual soul. It is a spontaneous feeling in many humans—perhaps most or all—to despise any tendency to "type" them, to explain them away. Hence the basic instinct (or intuitive compulsion) to insist on self-design and self-determination. One eminent founder of the Humanist tradition—Pico della Mirandola—believed that this conscious individuality is indeed the very hallmark of man—that he creates himself, or has the power to do so. Man is of course up against odds; a wide variety of forces attempt to shape and direct his life. But to be human, Pico maintained, is to have the ability to make of ourselves a being moving toward what we long to become.

How else can we rationally account for the will-to-freedom in humans, which is every bit as strong, if not actually stronger, than the will to believe? How else can we understand the war between the imitative and the creative aspects of everyone's human nature? In his *Oration on the Dignity of Man*, Pico specified that man alone, in the entirety of creation, has the capacity to choose his nature, to determine the quality of his life; for man, he said, is of "indeterminate image," placed in the middle of the world, where, impeded by no insurmountable restrictions, he may trace for himself the lineaments of his own nature. Embodying this conception of cosmic intent, Pico addresses Man:

It will be in your power to descend to the lower, brutish forms of life; you will be able, through your own decision, to rise again to the superior orders whose life is divine. . . . Who then will not look with awe upon this our chameleon, or who, at least, will look with greater admiration on any other being? This creature, man, whom Asclepius the Athenian, by reason of this very mutability, this nature capable of

transforming itself, quite rightly said was symbolized in the mysteries by the figure of Proteus.

From the viewpoint of objective science, Pico's account of man—as having *no* image—might be construed as "reductionism," but from the viewpoint of consciousness, or of the soul, it is a liberation from fixed assumptions in behalf of incommensurable possibilities.

REVIEW

THE REDISCOVERY OF NATURE

THE idea of a return to nature, to which so many people are responding, is surely the expression, partly instinctive, partly conscious and deliberate, of a desperate feeling of need. It is at once a longing for new beginnings, for recovery and restoration, and for an undefinable therapy in which a growing number are coming to believe. The writers who articulate this tendency address Nature somewhat as the ancient Greeks approached the Oracle of Delphi, knowing that they can expect only enigmatic answers to their questions, yet believing, as the Greeks did, that obscure counsels are better than none. Among such books, the most delighting are often recollections of childhood and youth on American farms. There are still plenty of Americans alive who grew up on farms, and while family farms are said to be rapidly disappearing, the sense of what life was like in the country before the days of agribusiness is kept green by vivid recollection. Meanwhile, the deliberate back-to-the-farm movement—of which a paper like *Mother Earth News* is both omen and support—gives promise of a renewed cycle of such literature for the future.

A fine book about the rural past is Ben Logan's *The Land Remembers* (Viking, 1975, \$8.95), in which the author, a journalist, tells about his boyhood years on a hilltop farm in southwestern Wisconsin. When he was nine, Logan says, he "fell in love with tractors." A neighbor had one, and Ben got a ride on it. After that he could talk about nothing else. This led to a long family debate:

Just mention the word tractor to Mother and she could see one tipping over, wiping out a whole family. Father listened to the talk and smiled, saying very little.

Lyle was the antitractor spokesman. I would bring up the subject and then it would go something like this.

"We don't raise gasoline. We raise hay. Ever tried feeding hay to a tractor?"

"But a tractor doesn't eat hay when it isn't working."

"Doesn't make any manure either."

"But a tractor would save a lot of time."

"Sure, and what happens when you need a new one? We going to take the old one next door and breed it to a neighbor's tractor and wait for it to have a little tractor?"

The scene shifts to another farm where the owner was complaining that his son had insisted that they get a tractor. The machine roared by, turning up two fourteen-inch furrows. The son smiled happily and waved at them. The neighbor mused, saying that his son gloried in the tractor, but that his own glory had been "making this farm out of nothing." He added:

"Seems to me a tractor gets a man too high in the air. I figure I got to be down on the ground where I can get dirt on my hands and get the smell of it. I got to walk and get the feel of it under me. Then I can say when it's too wet or too dry. I can say what it needs. You can't tell me that boy of mine's going to know all that, going across a field hell bent for election way up there on a tractor." . . .

We got into the car. I was very quiet. Father looked at me. "What's the matter?"

It isn't easy when you're nine—or any age—to say you've thought of a man as being old and foolish and have suddenly found out he's not only not foolish but almost a poet of some kind.

"I didn't know he felt like that," I said.

Father nodded. "Still think we should have a tractor?"

I could feel the steering wheel of the Fordson jerking against my hands. I could smell the gasoline and hot oil smells and hear the roar of power I had commanded from way up on that swaying seat. I still wanted a tractor. But it wasn't the same.

"Not as much," I said. Father smiled.

In *One Cosmic Instant* (Houghton Mifflin), John A. Livingston, a naturalist, makes frontal attack on the assumption that man is "fundamentally different and distinct from the living world that gives him both substance and sustenance." This assumption of difference, he says, "has provided the conceptual framework for a further doctrine, that of absolute human power

and authority over the nonhuman." He sees clear evidence of a spiritual bankruptcy in the institutions erected to support and exploit this view, along with progressive deterioration of the environment. Our only hope, Mr. Livingston believes, lies in deliberate and concerted cultural change—since culture at least *can* change, in response to changed ideas about nature and man.

Time is fast running out for the dismantling of the institutions which have kept us so grimly locked in step with "progress." There is even less time for reflection on the merits of the traditional components of our culture which have brought us—and all of nature—to the present point of departure. A point of departure it is, either from the narrow and egocentric cultural course we have adopted, or premature departure from the blue planet itself. If we are not yet capable of identifying the specific threads in the fabric of our beliefs which have sustained the entire tapestry upon which the myth of human dominance is emblazoned, then it may be too late already. . . .

While we should be unraveling the threads of tradition, we are weaving ever more elaborate curtains of rationalization. Every avenue of questioning closed off is another route to intellectual and spiritual freedom barricaded forever.

There is no engineering answer to a problem created by culture. The worst in humanistic ways of thinking opened and kept open the conceptual man/nature dichotomy, and only the mature wisdom and insight that is the best in the natural philosophic tradition can mend it.

So far as we can tell, this naturalist believes that humans must reconstruct their culture in ways that will enable them to share kindness and altruism with whales and dolphins, in which he finds these qualities wonderfully present. While acknowledging that self-consciousness sets man off from animal life, he suggests that Reason is a liability in the form of an over-specialization:

Reason gave us the technology which is killing other species of animals and plants, killing us, and killing planet Earth. Reason allowed us to rationalize the divine mission to subdue. Unlike the blue whale, Reason gave us the capacity to conceive of evil. Reason gave us the concept of species hierarchies and species dominance, a perversion of the natural social dominance of other primates. . . .

Reason is rather like a "technological fix." If it gets us into trouble, we attempt to apply just a little more of the same in order to extricate ourselves. Thus, frequently, we compound our problems. It is quite possible that this is the evolutionary future of our personal overspecialization. Like a peacock's tail, it will continue to grow, whether we like it or not (and, like the peacock, we are terribly proud of it), and it will reach a point at which it will no longer have survival value. From then onward, extinction is swift. Perhaps, with mindless and directionless technology, we have already passed the point of return—the achievement of humility.

Interestingly, while Mr. Livingston's attack on the egotism of human domination and the presumptions of reason has a gloomy puritanical tone—making man's self-consciousness seem to be the naturalist's version of original sin—he nonetheless looks to the humanities for guidance:

If "human ecology" is ever to emerge as a definable body of knowledge or area of investigation, it is far more likely to emerge from the humanities than from any of the hard or soft sciences. Man is the cultural animal. Culture created the power structure over nature, and only in culture is the blueprint for its dismantlement.

Well, what have the Humanities to say about Nature and the return to Nature? Naturally, they have encyclopedias on the subject! Agreeing with Mr. Livingston, we sought the writer who seems most attuned to both Nature and the Humanities—and to comprehend their interdependence best—and read in Emerson for a while. Emerson has two essays on Nature—one in the second Series, the other a four-part discussion which examines Nature in itself and in relation to Commodity, Beauty, and Language. Emerson believed that there is an instruction in nature that maps and reflects authentic reality. Reason, for him, is the capacity to recognize that "Every natural fact is a symbol of some spiritual fact." The metaphors we find in nature link qualities found in man and nature:

It is easily seen that there is nothing lucky or capricious in these analogies, but that they are constant and pervade nature. These are not the dreams of a few poets, here and there, but man is an analogist, and studies relations in all objects. He is

placed in the center of beings, and a ray of relation passes from every other being to him. And neither can man be understood without these objects, nor these objects without man.

With what high confidence Emerson tells us this! Yet we may admit, while wondering at him, the feeling that truth lies hidden where he found it, and that a belated awakening is making us seek the world in its untouched or unmodified aspects. These days we are recalling, almost reverently, the saying of Emerson's friend, "In wildness is the preservation of the world."

Owen Barfield (see *Poetic Diction*, Wesleyan University Press) is persuaded that the poets of antiquity used metaphors which drew together man and nature in ways that seem to us but poetic fancy, but were for them inwardly related modes of being, connecting all in primordial unity. The metaphor, in short, was more than metaphor—it did not draw a parallel but declared an identity. "Afterwards, in the development of language and thought," Mr. Barfield says, "these single meanings split up into contrasted pairs—the abstract and the concrete, particular and general, objective and subjective," it following that—

the poesy felt by us to reside in ancient language consists just in this, that, out of our later, analytic, "subjective" consciousness, a consciousness which has been brought along with, and partly because of, this splitting up of meaning, we are led back to experience the original unity. . . .

Men do not invent those mysterious relations between separate external objects, and between objects and feelings or ideas, which it is the function of poetry to reveal. These relations exist independently, not indeed of Thought, but of any individual thinker. . . . The language of primitive men reports them as direct conceptual experience. The speaker has observed a unity, and is not therefore himself conscious of relation. But we, in the development of consciousness, have lost the power to see this one as one. Our sophistication, like Odin's, has cost us an eye; and now it is the language of poets, insofar as they create true metaphors, which must restore this unity conceptually, after it has been lost from perception.

This, surely, is an account of the sort of return to nature which poetry may make possible, in Harold Goddard's meaning of the term.

COMMENTARY GRESHAM'S LAW

THIS week's lead (see page 2) speaks of a "shadow language" which people use for describing what they believe to be the activities of consciousness, hoping to demonstrate the benefit of some prescribed course. Brain waves of one sort or another are thought to measure the attainments reached by certain psychological practices; and other clues, mostly physiological, are assigned importance.

Somehow, all this seems little more than a transfer of the promise of technological expertise to the region of the inner life. The mapping of the *tracks* left by the motions of consciousness can hardly tell us what the mind (or soul) is really doing. An interrogation of consciousness needs to be in the language of consciousness: to appreciate a Bach sonata you don't make a movie of the pianist's hands—you listen to the music.

There has been some useful comment on this tendency lately. Discussing the pursuit of "new consciousness," E. F. Schumacher asks in what direction is it reaching. He quotes a Christian mystic who said: "between spiritual things and all these bodily things there exists no kind of proportion whatever."

More mundane in content, but also to the point, were the remarks of Thomas Middleton in the *Saturday Review* (March 9) on "Search for the Self":

Dolores was also going to an exercise class taught by a woman who had mastered yoga and t'ai chi and, I think kung fu, karate, and probably aikido. These exercises not only raised her consciousness but also got her in touch with her body. . . .

We found in Dolores a sort of epitome of a rather large number of people we have met in recent years. I guess Dolores has come to terms with herself. If not, she at least felt she was on her way to a peaceful solution. The trouble is that she—as well as just about everyone else we know who has concentrated on the Search for the Self—was dull and humorless. . . .

I know I am on dangerous ground here. I am reminded of Plato's concept of the cave. Maybe I am one of the hapless plebeians, trapped in the cave of my ignorance, in contrast to those philosophers who, through exercise groups Oriental exercises, organic foods, rolfing, and letting it all hang out, have gone out of the cave. . . .

It is not difficult to share Mr. Middleton's modest wonderment at the rather ordinary level of "creative" expression accompanying the advertised discoveries of "the Self." This seems an area where Gresham's law operates at top speed.

CHILDREN

. . . and Ourselves

A COLLEGE FIFTY YEARS AGO

ONE way of de-institutionalizing education is to drop out of school—at either the high school or the college level—and get a job of some sort for a year or two, or maybe longer. This is now a fairly common practice, the benefits seeming obvious. You go back to school—if you go back—when you develop a clear reason for going. Then you know what you want, and why you are going to school.

However, the student who does this is one who feels competent—or willing to try—to manage his own life. Not all students are ready for such a test. Which is the reason, of course, for schooling institutions. The ideal arrangement would be an educational center or focus which knows how and wants to vary the amount of management applied to the student's activities. It might supply a lot or no management, depending upon the individual. But where, today, will you find a school like that?

Dropping out is for confident, self-guided and self-energized students, we suggested. It involves some risk, but a risk less important, perhaps, than the virtual certainty of dullness, conformity, and routine in some ordinary school. But what about the students who aren't sure of what they want to do, who haven't found any "direction," and who look for some help?

Starting a school or a college seems a presumptuous and pretentious undertaking unless the person or people who do it have a clear idea of how to deal with this sort of question. No school can substitute for the ingenuities of self-reliance; no teacher can take the place of the hunger to know; and no expert in any area knows enough to shape the character and outlook of any other human being—certainly not deliberately, in the name of a professional activity. The only real student, as Ortega pointed out, is the one who regards all established doctrine and learning with suspicion—as things he has to know about at first hand, for himself. Such individuals, Ortega said, are the ones who add to human knowledge. No educator need concern

himself much about them; they will find their own way, although they may need some assistance, now and then—a few suggestions, access to books, an area of intensive work.

All the others are the educators' real problem. They are the ones who might like to strike out on their own, but feel timid, unsure of themselves; or who need both time and direction to reach to maturity and independent recognition of purpose. These are the great majority, who seem to need schooling.

Arthur Morgan must have had in mind a program to meet this need when he took over Antioch College back in 1921. He was himself largely self-taught—that is, while he went to a few schools he got his real education wandering around the country, working in mines and lumber camps and on construction jobs, after he left home at nineteen, going on the road in search of better health. About twenty-five years later he felt ready to start a college, and he found a way to get funding for the revival of Antioch, then on its last legs in the little town of Yellow Springs, Ohio. Morgan set out to do in a fresh way what Horace Mann had hoped to do about seventy-five years earlier. Antioch's General Catalogue for 1927-28 relates:

Horace Mann, in his inaugural address as first president of Antioch College in 1853, expressed what was then a revolutionary conception of the American college. To him a college was to be not only a home of scholarship and a school for the learned professions, but also a place for training all the latent qualities, physical, intellectual, and spiritual, of both men and women. Thwarted at every turn by sectarian interference, he died at Antioch in 1859 With his dream unrealized; but he left behind a tradition and an influence which the new Antioch holds as a precious inheritance.

At Antioch Morgan did something that is often talked about but seldom accomplished. He put the community into the curriculum. He did this practically, without fanfare. As the College Bulletin for February, 1928, says:

An element of the Antioch program which most colleges omit is the part-time work in practical life. Antioch students divide their time between college study and practical work, in five-week periods. Half

the students are at college at one time. Two of them hold a single position in alternate periods one being at work while the other studies.

Under this program Antioch students become acquainted with many and varied callings. They fill positions from the Atlantic Coast to beyond the Mississippi, and from the Great Lakes to the Southern states.

The men work at accounting, advertising, agriculture, architecture, art, building, clerical work, engineering, journalism, manufacturing, publishing, printing, research, salesmanship, teaching, and various other callings.

The women students are in journalism, teaching, physical education, home economics, social service, selling, art, horticulture, architecture, and library and secretarial work. They get valuable experience either for independent careers or for home management.

The purpose of the program of alternating part-time economic work with academic study is not primarily to develop technical skill, but rather to provide those elements of all-round education and personal development which cannot so well be supplied by the work of the college classroom alone.

Another feature at Antioch was the plan of self-directed study:

The development of responsibility and self-reliance is further promoted by the Antioch program of self-directed study. After the sophomore year Antioch students have an unusually large degree of freedom in the manner of carrying their studies. Formal classes are largely discontinued and the student works on his own initiative, much as is the case in English and European universities. Faculty members keep regular office hours during which they are available for counsel and assistance, and in discussion groups or in lectures the student can get the teacher's point of view.

In other words, students had ample opportunity to learn how to educate themselves. Other statements in the Bulletin:

The chief and outstanding characteristic of Antioch is its belief that no single element of education is sufficient in itself. . . . Education of the intelligence alone may lead men to be skillful in taking advantage of others, or may leave them too lacking in courage to accomplish anything worth while. Theoretical education alone may leave them quite unprepared for practical life. Practical

education alone may teach men to succeed financially, and yet their lives as a whole may be failures. . . .

Civilized society should be made up of men and women who have become "generalists" in their ability to think clearly and to act effectively in all the chief relations of life, at least to the extent of choosing leadership intelligently; and who, with this foundation of general fitness, have prepared themselves to render specialized service in the fields of their own particular occupations. . . .

Antioch stands, not for acquiescing in life as it is and making the best of a bad situation. . . . Only a spirit of aspiration and adventure, with a real faith in the possibility of achievement, can lead one to discover his full powers. Intelligent passion for excellence is man's greatest gift. Nothing less will sustain him in the difficult task of building a great

It is interesting to reflect on how difficult it would be, today, to write a good college catalog. Who could say these strong and simple things with comparable conviction? There seems a sense in which the Antioch of those days was less an "institution" than the practical embodiment of a man's vision and ideals. We have little knowledge of the Antioch of today, but feel free to speak of the College as it was fifty years ago, judging not only from the printed material about it, but also from the testimony of graduates who attended at that time.

The point of referring to these matters is the need to recognize how education enters usefully into the lives of balanced and productive human beings. Education should encourage them to become autodidacts—supply them with the means for educating themselves. There are no doubt dozens of ways of doing this, but the best way of all would be the evolution of a community which is itself a conscious educational enterprise. Until this ideal is achieved, we shall need institutional substitutes. The Antioch of Arthur Morgan was surely one of the best adaptations of an institution to the processes of life.

FRONTIERS

How Much Is Enough?

As the papers, reports, and pamphlets dealing with energy, food shortages, and environmental deterioration come in for review, one question arises with increasing insistence. How much good will it do to summarize this material? It is clear enough that, during the next ten years or so, the lives of most people in the world are going to be greatly affected by the facts and trends reported in these studies of energy and food supply. There will be far-reaching changes to endure or adjust to. Obviously, knowledge of these facts ought to contribute more readiness for change. It is better to initiate changes than be overtaken by them.

But what is the best preparation for change? How do changes of this sort really get under way? How is one led to think seriously about changes affecting a whole nation, or the entire world?

Actually, this is practically a new topic for serious consideration. There is, for example, the somewhat disenchanting thought that nations hardly ever act as a unit except in making war. In business, in industry, the people of the West act competitively or at least individually, cherishing their independence of any common purpose or pattern of action—even though, from a sociological point of view, there may be monotonous similarity in mass behavior.

But now we are going to have to act in concert in behalf of highly important objectives: having enough energy and enough food, and having a decent environment while using the energy and consuming the food. Encountering and sorting out the necessities of these objectives is a new sort of experience for most Americans. So having the facts about energy and food and environment may be quite important.

Still, we need to ask if knowing the facts can or should make change into some kind of "corporate" undertaking. We recall the sage observation of Richard Goodwin that most people

participate in corporate decisions with only a small or fragmentary portion of their being. Their personal objectives claim the lion's share of their attention and resolve.

Question: What is the difference between the way people think about personal goals and the way they think about national or world activities and needs? Well, a noticeable number of people are already cutting down on energy consumption, figuring how to get more from less, and the statistics on individual gardening are going up. Thousands of youngsters are out planting trees on the hills and mountains of Southern California—and doubtless similar things are going on in other parts of the country and the world.

Who knows what really sparks these self-initiated changes? Is it reviews of fuel shortage statistics, facts on the threat of smog, stories about world hunger now and tomorrow? There isn't any way to tell. Something inward is moving individuals to their own forms of action—so whatever the organs of communication are doing, they may be doing a little of what is right.

We have for review what seems a lucidly informative pamphlet, *Exploring Energy Choices*, the preliminary report of the Ford Foundation Energy Policy Project [available at 75 cents from The Energy Project, P.O. Box 23212, Washington, D.C. 20024]. It gives the facts of U.S. and world sources of energy and the history of energy consumption in recent decades. It describes the problems, "explains" (more or less) the fuel shortage, and proposes three alternative plans for the future: (1) continuing to use energy at our present rate of consumption; (2) applying the "technical fix" to our energy problems; (3) deciding for Zero Energy Growth. For general background on this broad subject, there is probably no better or clearer brief presentation.

First there is the fact that during the past twenty years the U.S. changed from an exporter to an importer of oil. Americans now consume a third of all the world's energy, though they are only six per cent of the population. As

individuals, we are using a lot more energy than we used to. During the 1960s general U.S. population increased 11 per cent, but residential energy consumption increased by 50 per cent—more hot water heaters, air-conditioners, refrigerators, washing machines, radios, televisions, and lighting. Nearly half the homes in America now have clothes dryers.

Eight out of ten American households have one car, and half the poor households have one. Three families in ten have two cars. Americans used to average over 14 miles to a gallon of gas; now they get less than 12. Automobiles account for over 95 per cent of all urban passenger traffic. Airplanes consume more energy per passenger mile than automobiles. While rail transport is four times as efficient as truck transport, and 63 times as efficient as air transport, railroads are losing freight traffic to trucks and planes.

These are only a few sample statistics indicating why American energy consumption has increased so much. Meanwhile, there is a big and growing gap between fuel supply and fuel consumption. The switch to electricity in a variety of uses has been costly: Generating and transmitting electricity involves about 65 per cent loss of the energy-content of the fuel used for these purposes.

Why was it so easy to make all these increases in energy consumption? Because energy was cheap until quite recently. There are other reasons also, but low fuel cost—now rapidly going up—was a major factor in the growing consumption.

Exploring Energy Choices gives basic information about the sources of energy, present and future, and looks at the probable requirements of the next ten and twenty years. Zero energy growth "might come about," the report says, "if society became concerned enough about the social and environmental costs of energy growth, and if technology seemed unable to solve these problems."

It might also reflect broader social concerns, like uneasiness about the dehumanizing aspects of big centralized institutions. *Zero Energy Growth* would emphasize durability, not disposability of goods. It would substitute for the idea that "more is better," the ethic that "enough is best."

The spread of meaning in the word "enough" is obviously the key to whether or not zero growth can be made acceptable. The pioneers of change for the better, and not merely for "survival," are those who are adopting and learning to enjoy a radically different idea of "enough."