

THE RAW MATERIAL

IT is true enough that there can hardly be any new ideas. Just as nothing that we are able to talk about happens just once, so with ideas. How could we become aware of a totally new idea? But the way ideas strike us—their impact on our minds and our lives—that, certainly, is sometimes so dramatic in its effect, altering our hopes, our values, and the disposition of our energies, as to justify calling them new. If you look at an idea apart from its history—as though it were some sort of naked, timeless concept—then indeed it will be difficult to demonstrate its novelty. Some philosopher, some poet, some teacher of antiquity has already given it voice. But usually, what counts for us is the leverage of an idea in human affairs. For clearly there are conceptions which have the power both to transfix and to illuminate—the ideas whose time, as Victor Hugo said, has come.

It is no new idea, for example, that human beings are as effective in the production, or elaboration, of ignorance as they are in the accumulation of knowledge. This is an idea, of increasing currency today, which is putting an end to the three-hundred-year-old vision of the Enlightenment. We are not, we are now realizing, going to be able to complete the vast mosaic of reliable information about the world of nature to the point where we shall really know how everything works and what it means. That is not going to happen, not merely because the job is too big, the universe and its parts too complicated, but because, in the nature of things, and in the nature of our knowledge, it *can't* happen. Sixteen years ago, in the *Saturday Review* (Jan. 3, 1959), Warren Weaver, a mathematician, generalized the conclusion reached by many thoughtful scientists—a conclusion also implicit in the multiplying problems of the technological society. He said:

As science learns one answer, it is characteristically true that it also learns several new questions. It is as though science were working in a great forest of ignorance, making an ever larger circular clearing within which, not to insist on the pun, things are clear. . . . But, as that circle becomes larger and larger, the circumference of contact with ignorance also gets longer and longer. Science learns more and more. But there is a sense in which it does not gain, for the volume of the appreciated but not understood keeps getting larger. We keep, in science, getting a more and more sophisticated view of our ignorance.

There is no getting around the fact that we no longer feel as we did back in the twenties or thirties of this century regarding the assured and endless progress of scientific knowledge. Those were the days when the promise of a brave new world was taken seriously by nearly everyone. Somehow or other, the scientists were going to square the circle, convert their quantitative knowledge into human meanings, figure out a way to remedy not only disease and want, but the sources of conflict among men. But now that faith is practically dead. The honorific adjective, "scientific," no longer commands the same reverence or respect. In fact, we may already have gone too far in the opposite direction, forgetting the qualities of integrity and impartiality which are at the root of the practice of science, and which we shall need, in years to come, far more than a continuing succession of "breakthroughs" and new inventions.

So, today, the whole idea of "knowledge" is undergoing redefinition, and a deep insecurity pervades the times as a result. The question of what 'knowledge' is, and whether or not there is any hope of getting a kind of knowledge that is immune to the erosions and revolutions of time, haunts us all. The collectivist theory of knowledge—the theory, that is, that by careful teamwork specialists will eventually put together a

reliable picture of the world we live in—is falling apart, and our insecurity comes from wondering what we can put in its place. For we *have to have* a working hypothesis about knowledge—we are meaning-seeking beings.

But where are we going to find—who will help to provide—a new or better idea of knowledge? Even the question seems prejudicial, and somewhat betraying in our present situation. If systematic methods and division of labor—which work so well in industry—cannot be relied upon, are we then utterly alone in our efforts? Can't we help each other at all? Is the problem of knowledge entirely an individual affair? These questions, in turn, bring us to the edge of the darkness of our feeling of incompetence. How could one lonely, bewildered human being be able to find out for himself what knowledge is?

Well, there is truth in these terrible abstractions, but only relative truth. People do work out private systems of equilibrium and find themselves able to live by them. *How* are they able to live by them? The fact is that we have all been doing this all our lives—although for the most part not noticing it, just feeling in ourselves curious and unpredictable combinations of confidence and anxiety. We hardly know what determines the balances of these two psychic conditions, but they are certainly there. The first thing to do, then, is to bring this situation to the surface, and accept it as a *pro tem* solution, while looking for a more durable approach to the problem of knowledge and how to think about the issues of human life. John Holt put this attitude in easily comprehensible terms in a letter to a student who envied him because he seemed to have "everything taped." Replying, Holt said:

"You could not possibly be more mistaken. The difference between you and me is not that I have everything all taped, it's that I know I don't and I never will, I don't expect to and don't need to. I expect to live my entire life about as ignorant and uncertain and confused as I am now, and I have learned to live with this, not to worry about it. I have

learned to swim in uncertainty the way a fish swims in water."

Mr. Holt includes some Socratic modesty with his declaration of ignorance, but he, like the rest of us, cannot help but want to become more wise, better able to "cope." Yet he can see no end of the line in gaining understanding, no final resting place or finish to the quest, so there is a sense in which the uncertainty is bound to go on.

This, you could say, is the philosophical position in which a man, having found an equilibrium of his own, makes the best of the situation. But is the situation "bad" or "good"? Mr. Holt doesn't deal with this question, but says:

It seems to me that it is only in this way that it is possible to live in the kind of a rapidly changing world that we live in. We are obliged to *act*, in the first place, and in the second place to act intelligently, or as intelligently as possible, in a world in which, as I say, we know very little, in which, even if the experts know more than we do, we have no way of knowing which expert knows the most. In other words, we are obliged to live out our lives thinking, acting, judging on the basis of the most fragmentary and uncertain and temporary information.

We still may ask, Is this bad or is it good? From the viewpoint of Enlightenment expectations—that eventually natural science would have everything taped—it is pretty bad. When you first try to assume the position described by Holt, you are likely to suffer nostalgia for the old kind of certainty—the promised certainty, that is. But consider: the world which based its major operations on the Enlightenment idea of knowledge—filled with eager confidence in expanding know-how and logical expectation of some day arriving at final truth: in economics, in social organization, in the defeat of human ills—this world has gone seriously wrong in practically all its departments. What if that idea of knowledge, which encourages one kind of thinking about the world and about ourselves, was deeply in error? If we are ready to face this possibility, we ought also to face the possibility that the outlook expressed by John Holt, even though undeveloped and sounding, as

he puts it, like a catch-as-catch-can compromise with "reality," is in fact the best possible way of thinking about knowledge; or, speaking more conservatively, less involved in delusion than the Enlightenment dream.

This is not, however, a new idea. It goes back far, far in the history of human thought. You can probably find it in Plato, in still earlier sources in Eastern religious philosophy, and it had clear and disciplined expression at the dawn of the European Renaissance in a book by one of the founders of modern thought, Nicholas of Cusa. Yet it is now an idea, quite evidently, no longer to be restricted to the reflections of isolated philosophical minds, since today its time has come.

Cusanus, as he is usually called, was born in 1401 on the shores of the Moselle. A brilliant scholar, he was employed by Pope Eugene to work toward reconciliation with the Eastern Church and he was able to arrange the conference in Florence in 1437 which brought Greek scholars such as Gemistos Pletho to Italy. The establishment of the Florentine School was a consequence of this mission. (Cusanus, Giorgio de Santillana relates in *The Age of Adventure*, also had dreams of reconciling Christianity with Islam.) During the long sea voyage home from Constantinople, he was overtaken, as he says, by a "sudden insight" which led to his book, *Doctors of Ignorance*. John Holt could easily qualify as a member of this fellowship. What hit Cusanus on board ship was the relativity, and therefore the unreliability, of finite knowledge. He offered mathematical proofs of the limitation of all intellectual and scientific inquiry, and in the process anticipated Copernicus with the postulate that the earth must move, thus providing foundation for the theories of Giordano Bruno.

Cusanus maintained that perfect or absolute knowledge, being infinite, could have no relation to finite matters, which are always defined in terms of "more" or "less." The very precisions on which we rely for accuracy in matters of science

shut out the incommensurable reality to which we aspire. To think of those precisions as embodying stable knowledge leads inevitably to false certainties which must in time collapse in failure. De Santillana summarizes Cusanus' argument from mathematical analogies:

A finite intellect, therefore, cannot by means of comparison reach the absolute truth of things. Being by nature indivisible, truth excludes "more" or "less," so that nothing but truth itself can be the exact measure of truth: for instance, that which is not a circle cannot be the measure of a circle, for the nature of a circle is one and indivisible. In consequence, our intellect, which is not the truth, never grasps the truth with such precision that it could not be comprehended with infinitely greater precision. The relationship of our intellect to the truth is like that of a polygon to a circle; the resemblance to the circle grows with the multiplication of the angles of the polygon; but apart from its being reduced to identity with the circle, no multiplication, even if it were infinite, of its angles will make the polygon equal to the circle.

It is clear, therefore, that all we know of the truth is that the absolute truth, such as it is, is beyond our reach. The truth, which can be neither more nor less than it is, is the most absolute necessity, while in contrast with it, our intellect is possibility. Therefore, the quiddity of things, which is ontological truth, is unattainable in its entirety; and though it has been the objective of all philosophers, by none has it been found as it really is. The more profoundly we learn this lesson of ignorance, the closer we draw to the truth itself.

But there is also hope in the fact that the ultimate reality or final truth is everywhere present—even in the finite as its essence, giving the finite its relative reality, although not contained by its presence there. And this omnipresence of the absolute reality contributes to whatever we know, through our intuition that, while we cannot define it, it must be there.

Difficult and abstract as this may seem, Cusanus' thought was enormously fruitful, as de Santillana shows, and one may think that this sort of philosophic relativism has the general effect of imparting a sense of proportion to all inquiries and enterprises. What then *is* the "ignorance" of which Cusanus speaks? It is not, in any case,

simply the unexplored portion of the cosmos, eventually to be conquered and subdued by scientific discovery. Ignorance, as viewed by Cusanus, rests in the unlimited potentiality of finite becomings, which cannot be pinned down or finally encompassed. Ignorance, then, is not some quantity determined by the things we do not know, but the opaque field of objectivity that we generate whenever we look beyond the finite known in any direction.

Knowledge or wisdom, then, is the capacity for coping with this "ignorance." As long as we are out in the world, dealing with its endless phenomena, we shall encounter a frontier of ignorance. Wisdom consists in individual balance—in a knowledge of the dynamics of becoming, as distinguished from a catalog of the particular forms of things that have already "become" and will go on becoming.

A similar view of the quest for truth is found in the *Isa Upanishad*:

Into blind darkness enter they
That worship ignorance;
Into darkness greater than that, as it were, they
That delight in knowledge.

Other, indeed, they say, than knowledge!
Other, they say, than non-knowledge!
—Thus we have heard from the wise
Who to us have explained It.

Knowledge and non-knowledge—
He who this pair conjointly knows,
With non-knowledge passing over death
With knowledge wins the immortal.

Into blind darkness enter they
Who worship non-becoming;
Into darkness greater than that, as it were, they
Who delight in becoming.

Other, indeed—they say—than origin!
Other—they say—than non-origin!
—Thus have we heard from the wise
Who to us have explained It.

Becoming and destruction
He who this pair conjointly knows,
With destruction passes over death,
With becoming wins the immortal.

One feels, you might say, the truth in these old utterances, yet can hardly put a finger on their meaning. On one level paradox is utterly bewildering, but on a highest level it sets the mind free. In another *Upanishad* (the *Katha*) there is this verse:

If the slayer thinks to slay,
If the slain thinks himself slain,
Both these understand not,
This one slays not, nor is slain.

We need the paradox to conduct us to the region of the highest human truth. The man who dies for a cause does not die; he transfers his life to an undying principle. Destruction and becoming cancel each other; but one must know what *sort* of destruction opens the way to rebirth; for those who are "slayers of the Self" enter worlds "with blind darkness covered o'er."

On the fringes of this sort of knowledge or inquiry, the old rule, *Define your terms*, may be a formula for continuing blindness. Precise definition of terms belongs only to those limited inquiries where the boundaries are known, the relativities measured and understood. If you are out to make fresh discoveries, the rule must sometimes be, *Don't define your terms!* Only a loose leash works well with ideas in search of richer meanings.

The inquiry that waits on intuitive inspiration dare not shut out other octaves of meaning. For that indeed is the meaning of being human—to have the reach of a vaulting imagination, guided by the universal habit of nature to work in octaves, to order by correspondences which may be approached by analogies. The precise, one-dimensional meaning can only communicate copies of itself, but the free human mind runs up and down the ladder linking hierarchical meanings. As an eminent scientific researcher, Dr. Lewis Thomas, has said:

Only the human mind is designed to work in this way programmed to drift away in the presence of locked-on information, straying from each point in a hunt for a better, different point.

If it were not for the capacity for ambiguity, for the sense of strangeness, that words in all languages provide, we would have no way of recognizing the layers of counterpoint in meaning, and we might be spending all our time sitting on stone fences, staring into the sun. To be sure we would always have had some everyday use to make of the alphabet, and we might have reached the same capacity for small talk, but it is unlikely that we would have been able to evolve from words to Bach. The great thing about human language is that it prevents us from sticking to the matter at hand.

Looked at in another light, this extraordinary power of mind—to enter new realms of being by "recognizing the layers of counterpoint"—is the source of what we speak of as human freedom. Man, declared Pico, has no "fixed properties," no clearly defined "nature" of his own which determines how he shall behave. He is a being of octaves of possibility, with "the power to share in the properties of all other beings, according to his own free choice."

Hence the vitality of man's thinking is shown most conveniently by the use of metaphor, his potentialities best illustrated by the ranges of myth. We are inveterate myth-makers, imaginers of best of all possible worlds. Our tracks are the tracks left by works of the mind—records of yesterday's definitions of the real and the unreal, the self and the not-self. Man, said Ortega, repeating Pico, has no nature, only history. As it is sometimes put, Man is the being who eternally recreates himself, or can if he will. So Sartre, giving history and habit little attention, declares that man has no "essence," in order to deny him the excuse of a predestining past. If you say that man is a *responsible* being, you have to declare something like this, although you may avoid Sartre's bludgeoning of past experience. You have to say that it is man's nature to determine his own nature. Otherwise, you will be forever measuring skills, gathering evidence of hostilities, listing reflexes and comparing biologies in order to prove that human beings can only do one sort of thing, think in one sort of way, and respond to one "ideal" environment.

What then, again, is the "ignorance" of which we are so oppressively aware? Vinoba, who made a translation of the *Isa Upanishad* (we quoted another rendition), has this suggestion:

In the *Upanishads*, the praises of ignorance are sung side by side with the praises of knowledge. Man needs not only knowledge but ignorance too. Knowledge alone, or ignorance alone, leads him into darkness. But the union of fitting knowledge with fitting ignorance is the nectar of eternity. The world is so filled with the matter of knowledge that men would go mad if they were to attempt to cram all of it into their heads. The ability to forget is just as necessary to us as the ability to remember.

The objective, then, is learning how to walk the tightrope of fitness, and that we can walk at all is due to the ground of our ignorance as well as to our knowledge of walking. What is ignorance? No more than the eternal raw material of an eternal life.

REVIEW

ONE WHO ESCAPED

DORIS LESSING is good reading because of the liberating effect of her prose. Like the rest of us, her thinking is framed by the times, but the vitality of her self-reliance stirs the imagination of the reader. When we are young, we feel we must read and read—that we shall never get "on top" of issues and problems until we know what other people have said about them. Then, little by little, an individual gyrosopic principle comes into play, or ought to. A point is reached where the reading is done from a position of strength instead of deficiency. Some sort of psychological equilibrium has been gained, and the sources of the balance are different with each person. This is the beginning of originality, of vision, and of the capacity to stir and enrich other minds. The work of a writer who has reached this stage—and not all do—overflows with a generosity which feeds the nascent independence, not the acquisitive hungers, of the reader.

For this reason it doesn't matter that *A Small Personal Voice* (Knopf, \$6.95), presenting essays, reviews, and interviews, is something of a hodgepodge. The subject Mrs. Lessing writes or talks about isn't very important; what matters is the spark of a mind that move, by its own strength. There is this, for example, on her encounter with Olive Schreiner's *The Story of an African Farm*, which Doris Lessing first read when she was fourteen, living in Rhodesia:

Here was the substance of truth, and not from England or France or America, necessitating all kinds of mental translations, switches, correspondences, but reflecting what I knew and could see. And the book became part of me, as the few rare books do.

A decade or so later, meeting people who talked of books they talked of this one, mentioning this or that character, or scene; and I discovered that while I had the strongest sense of the novel, I couldn't remember anything about it. . . . I read it again, for the first time as an experienced reader, able to judge and compare—and criticise. The first shock was that Olive Schreiner, who had always felt so close, like a

sister, could have been my grandmother. The second was that, if I used the rules that turn out a thousand good forgettable novels a year, let the book spread out from the capsuled essence of it I had held, so that it became a matter of characters and a plot, it was not a good novel. But, then, of course, neither is *Wuthering Heights*. Well, then, what are these rules? Faced with one of the rare books, one has to ask such questions, to discover, again, that there aren't any. Nor can there be; the novel being that hybrid, the mixture of journalism and the *Zeitgeist* and autobiography that comes out of a part of human consciousness which is always trying to understand itself, to come into the light. Not on the level where poetry works, or music, or mathematics, the high arts; no, but on the rawest and most workaday level, like earthworms making new soil where things can grow. True lovers of the novel must love it as the wise man in the fable did the crippled beauty whose complaint against fate was that she was beautiful—for what use was her beauty? She was always trying for humanity and failing. And he replied that it was because of the trying that he loved her.

The true novel wrestles on the edge of understanding, lying about on all sides desperately, for every sort of experience, pressing into use every flash of intuition or correspondence, trying to fuse together the crudest of materials, and the humblest, which the higher arts can't include. But it is precisely here, where the writer fights with the raw, the intractable, that poetry is born. *The Story of an African Farm* is a poetic novel; and when one has done with the "plot" and the characters, that is what remains: an endeavor, a kind of hunger, that passionate desire for growth and understanding, which is the deepest pulse of human beings.

Doris Lessing read Olive Schreiner when she was fourteen, and she also left school at that time. For a while she worried about what she was missing, but later felt she had made a lucky escape. The way literature is taught in the schools convinced her of this. In one of her Prefaces she gives some advice to students:

There is only one way to read, which is to browse in libraries and bookshops, picking up books that attract you, reading only those, dropping them when they bore you, skipping the parts that drag—and never, never reading anything because you think you ought, or because it's part of a trend or a movement. Remember that the book which bores you when you are twenty or thirty will open doors for you

when you are forty or fifty—and vice versa. Don't read a book out of its right time for you.

Most students feel constrained to do exactly the opposite of what Doris Lessing suggests: their required reading is so heavy that they don't have time for following their own inclinations. It seems at least possible that a person who has completed his formal schooling is one who has lost the independent inclination to read.

Mrs. Lessing also warns against blind worship of the printed word:

. . . the people who have been conditioned into thinking only in terms of what is written—and unfortunately nearly all the products of our educational system can do no more than this—are missing what is before their eyes. For instance, the real history of Africa is still in the custody of black storytellers and wise men, black historians, medicine men: it is a verbal history, still kept safe from the white man and his predations. Everywhere, if you keep your mind open, you will find the truth in words *not* written down. So never let the printed page be your master. Above all, you should know that the fact that you have to spend one year or two years on one book, or one author means that you are badly taught—you should have been taught to read your way from one sympathy to another, you should be learning to follow your own intuitive feeling about what you need: that is what you should have been developing, not the way to quote from other people.

In one of the interviews, Mrs. Lessing was asked about the modern trend toward "introspection." She replied:

Well, I haven't been to America, but I've met a great many Americans and I think they have a tendency to be much more aware of themselves, and conscious of their society, than we are in Britain (though we're moving that way). By a coincidence I was thinking this afternoon, about a musical like *West Side Story*, which comes out of a sophisticated society which is very aware of itself. You wouldn't have found in Britain, at the time that was written, a lyric like "Gee, Officer Krupke." You have to be very socially self-conscious to write *West Side Story*.

In another interview she was asked about dreams:

Dreams have always been important to me. The hidden domain of our mind communicates with us through dreams. I dream a great deal and I scrutinize my dreams. The more I scrutinize, the more I dream. When I'm stuck in a book I deliberately dream. I knew a mathematician once who supplied his brain with information and worked it like a computer. I operate in a similar way. I fill my brain with material for a new book, go to sleep, and I usually come up with a dream which resolves the dilemma.

For those interested in exploring Doris Lessing's novels, we suggest starting with *Retreat to Innocence*, which deals with the disenchantments suffered by radicals when the poverty and want on which their reforms were based is replaced by some material prosperity. Anyone who reads this book will be likely to look up others by this author.

Our Synthetic Environment by Murray Bookchin, first published in 1962, has been made available in paperback by Harper & Row (\$3.95). Like Rachel Carson's *Silent Spring*, which appeared six months later, Bookchin's study of the physical and social erosions in our surroundings became an epoch-making book. At first it was quoted mainly in the radical press, but in time passages by Bookchin were cropping up everywhere in the work of writers concerned with the man-made disasters overtaking the planet. In this new Colophon edition, the author has added a long introduction in which he considers various developments and accelerations which have increased the relevance of his contentions.

Our Synthetic Environment is impressive in its grasp of the numerous fields involved in the ecological approach, and also in its consistently humane evaluations of psychosocial phenomena. In the final chapter, "Decentralization," Mr. Bookchin speaks of the exodus to the suburbs:

Megalopolitan life is breaking down—physically, economically, and biologically. Millions of people have acknowledged this breakdown by "voting with their feet", they have picked up their belongings and left. If they have not been able to sever their connections with the metropolis, at least they have tried. As a social symptom, the effort is

significant. The reconciliation of man with the natural world is no longer merely desirable; it has become a necessity. It is a compelling need that is sending millions of people into the countryside. The need has created a new interest in camping, handicrafts, and horticulture. In ever-increasing numbers Americans are acquiring a passionate interest in their national parks and forests, in their rural landscape, and in their small-town agrarian heritage.

Despite its many shortcomings, this trend reflects a basically sound orientation. The average American is making an attempt, however confusedly, to reduce his environment to a human scale. He is trying to re-create a world that he can cope with as an individual, a world that he correctly identifies with freedom, gentler rhythms, and quietude of rural surroundings. His attempts at gardening, landscaping, carpentry, home maintenance, and other so-called suburban "vices" reflect a need to function within an intelligible manipulatable, and individually creative sphere of human activity. The suburbanite, like the camper, senses that he is working with basic, abiding things that have slipped from his control in the metropolitan world—shelter, the handiwork that enters into daily life, vegetation, and the land. He is fortunate, to be sure, if these activities do not descend to the level of caricature. Nevertheless, they are important, not only because they reflect basic needs of man but because they also reflect basic needs of things with which he is working. The human scale is also the natural scale. The soil, the land, the living things on which man depends for his nutriment and recreation are direly in need of individual care.

The concluding portion of this book is devoted to proposals aimed at keeping the realizations of these longings from becoming caricatures.

COMMENTARY AFRICAN CULTURE

STRIKING confirmation of what Doris Lessing says (page 3) about the real history of Africa—that it is "still in the custody of black storytellers and wise men, black historians, medicine men"—is found in *Muntu* by Janheinz Jahn (Grove Press, 1961), a book on African philosophy and culture based upon five sources, all works which record the words of black wise men, storytellers, and historians. One writer, Father Placied Temples, a Franciscan missionary, spent years learning the thought of the Baluba people at first hand, and set it down in *Bantoe-Filosophie* (Antwerp, 1946). Jahn tells the story of the other sources:

The second book results from an unusual and happy incident. The French ethnologist Marcel Griaule had spent many years studying the Dogon, a people who live in the great bend of the Niger. In October 1946 Ogotomméli, an old but vigorous sage and hunter who has been accidentally blinded, summoned the ethnographer and expounded to him in conversations which lasted thirty-three days, the world-system, metaphysics and religion of the Dogon "a world-system, the knowledge of which completely invalidated all the conceptions we had formed about the mentality of the negroes or the mentality of primitives in general." [Griaule, *Dien d'eau*, Paris, 1948.] Ogotomméli set forth his knowledge systematically, in a poetic language rich in images; the ethnographer had only to write down what was dictated to him and translate it into French.

Encouraged by his success, Griaule's collaborator Germaine Dieterlen investigated the religion of the Bambara and was able to exhibit a similar system in her "Essay on the Bambara Religion." [Paris, 1950.]

In 1949 an Afro-American actress travelled from the United States to Haiti to take some films of the Voodoo cult. Maya Deren was soon so gripped by this religion that she stopped her film-making, had herself initiated, and finally gave a systematic exposition of Voodoo [*Living Gods of Haiti*, New York, 1953].

The fifth book is called *La philosophie bantu-rwandaise de l'Être*. Alexis Kagame, himself a Bantu, compiled this extensive work, which was published by the Royal Academy of Sciences in

Brussels and won for him the degree of Doctor of Philosophy. . . .

Five entirely different authors—a Belgian monk, a French ethnographer, a North American actress, an African sage who can neither read nor write, and an African scholar who speaks several European languages—these five from different motives, have presented the philosophical systems of five different peoples—Baluba, Ruandese, Dogon, Bambara and Haitians—who live far apart from one another. And for all the differences in detail these systems agree basically with one another.

CHILDREN

. . . and Ourselves

THE FOCUS OF ECOLOGY

WE have received in the mail an outline of a proposed text on ecology—one seeking a publisher—in which the theme is "energy flow," starting with the sun and reaching into every aspect of our lives. The chapter headings alone are enough to make this clear. Tracking the paths and transformations of energy makes use of practically every department of scientific knowledge and involves the less certain skills of social investigation. The author explains:

Why was this concept of the flow of energy chosen? Problem-solvers and predictors of solutions and trends usually enjoy reducing all variables to a single all-important and essential "sine qua non" or component on which the whole puzzle hinges. The author considers energy flow such a critical and fundamental dimension on which is hinged the whole network of relationships between the organic and inorganic world that is ecology, between man and nature. The past, present or future of Earth and man can be said to rise and fall dependent upon the integrity of this particular dimension and phenomenon of energy flow.

Why is seeing things "whole" important? Well, there is the pure-science motive—the desire to understand the world we live in—but there is also the more urgent desire to learn how to make things, 'everything, work better. The assigned topic—or task—of our lives now seems to be: Repair, restoration, reform, reorganization. We are pressed by the compelling need for constructive change, and educators naturally respond to this mandate.

Ecology, this writer believes, is best approached through the study of energy flow—

because energy flows only one way and in one particular direction, namely, one of greater dispersal and of greater unavailability. The scarcity of this resource becomes poignant at the individual level as one advances from poverty to middle class, from youth to old age, as it does socially from clean, young city to old, towering and decrepit megalopolis. The evaluation of the materials presented, while simple and apparent, leans on newly and well defined

principles. This vital dimension of energy, if quantified, can put the whole chaos of human and biological interrelations into a governable whole.

A book that can help toward this end is surely valuable. As the author points out, it goes beyond the physical or natural sciences:

It has set itself the task of delving into the complex, unpredictable dimension of man called the "noosphere." While the general fears of empirical scientists inhibit one from embarking on such quicksand terrain, this book points to the noosphere as needing serious treatment in our discipline of ecology. College and lay ecologists must tend toward becoming human ecologists and persevere in working toward solutions of food and population, nutrition and obesity, garbage disposal and recycling of wastes, clean air and combustion engines, all authentically scientific dimensions involving the flow of energy and materials through our environment.

There is manifest progress in conceiving the scientific approach as unitary, having to deal with the over-all functioning of the planet, up to and including the minds of its most developed inhabitants.

At the level of mind, however, other questions arise. Minds are capable of grasping how wholes function—even complex wholes including numerous ecological relationships. A mind, in principle at least, can encompass any finite system of relationships. But the how of relationships is only a part of the mind's capacities. Most of all, when at its best, the mind seeks out meanings. After we get adequate knowledge of energy flow, there will remain the need to use it intelligently. And we shall still want to know what the dynamic structures of the world *mean*. What is the world for? And what is our role or contribution? Are we collaborators or just consumers? Collaborators in what?

An understanding of the "how" of ecological functioning is not enough. This is not to suggest that a scientific text on ecology ought to explain the universe in terms of teleological striving, but that the underlying importance of this question needs to be noted and stressed. Function is the study of science. *Harmonious* function requires the fulfillment of meanings, and this is where human beings have their great and crucial part to play.

The conception of purpose may be more important than technical understanding. In an essay, "The City as Convivial Centre," contributed to the Summer 1974 *Tract* (Gryphon Press, Llanon, Cardiganshire, U.K.), Leopold Kohr remarks that "previous ages had the advantage of a precise moral aim giving direction to all planning." Citing the analysis of Sir William Holford, he says:

Classical antiquity strove for harmony; the Middle Ages for mystic fulfillment; the Renaissance for the elegance of proportions; more modern times for the enlightenment of humanism. All knew exactly what they wanted.

But what about the purpose of contemporary city planners? We have no clear picture of it except that it is animated by social service—a concept that shifts from day to day and, therefore, cannot easily be defined. Here, we are told, lies the great disadvantage of modern planners. Earlier builders knew exactly what they were building, because all they did was execute what their mind conceived. By contrast, modern planners, whose purpose is cultivation of the public taste, have the hardest time finding out what this taste is. Since God has failed to endow this fickle master with a voice by which it could communicate its desires, the planner must engage research staffs to find out in what direction the wind is blowing.

Prof. Kohr thinks that the underlying basis for the formation of communities does not really change—that continuously men have sought the means to the good life in terms of conviviality, religion, and politics, with trade providing the economic requirements. These, he believes, were the nuclear functions which, assuming embodiment, shaped cities and towns. Planning meant no more than arrangement of this communal nucleus, with the rest of the city following by itself. He then says:

Modern planners are forever building the rest of the city. But without the nucleus nothing can be held together. And the nucleus they cannot build because they are convinced that every age has a different purpose which, by the time they have discovered it, has melted away from underneath their feet.

This need for an underlying sense of meaning becomes increasingly obvious with the development of the holistic application of all the sciences under the aegis of Ecology—the discipline which seeks to

define the optimum functioning of all nature as a collaborative enterprise.

It seems evident enough that the melee of random and conflicting purposes that have ordered—or disordered—our technological and social enterprises during the past hundred years can no longer be allowed free rein. The ecological studies which have emerged in our time give both precise and general criticisms of the practical destructiveness of these purposes. But will it be possible to *take* this criticism without recognizing the priority of human purpose, and also the need for discovering the overall meanings of which the complex harmonies we seek are the natural fulfillment?

We may feel reluctant to give an assignment of this sort to scientists. They are not prepared for it, nor is anyone else in our culture. But this very unpreparedness makes an inquiry into meaning and purpose an essential task of education.

The high civilizations of antiquity all were ordered by over-arching metaphysical systems, especially those of Egypt and India. Our own social order, however, grew out of determined and proud rejection of *any* theory of transcendent meaning. The historical reasons for this rejection, once strong with the relevance of moral rebellion, are now completely exhausted. We know that while technical questions can be delegated to specialists, the history of the Western world shows that answers to the questions about meaning cannot be left to experts of any sort. We have been through the fires of the Reformation and suffered long and cruel religious wars, succeeded by the even more horrible wars of ideology, and all this trouble came mainly from accepting ideas of meaning—or of denial of meaning—at second hand. The focus—and it is only a focus—of ecological science now points to the need for a new beginning in human thinking about the purpose of life.

FRONTIERS

The Sources of Morality

IN *India: What Can It Teach Us?* (Funk & Wagnalls, 1883), the eminent Sanskrit scholar and Orientalist, Ma Muller, set out to correct the misconceptions obtained from their studies by candidates for the Indian Civil Service in that day. (The book presents lectures given at Cambridge University.) After showing the prejudice in a history of British India (by James Mill) on which the students would be examined, he proposed that for more accurate information they read William Sleeman's *Rambles and Recollections of an Indian Official*, published some forty years earlier.

Unlike the writers of authorized texts, Sleeman spent most of his time in the village communities of India, where, in those days, close to 99 per cent of the people lived. Mill, the officially recommended historian (father of John Stuart Mill), had charged virtually all Indians with habitual untruthfulness. Against this claim Müller collects numerous reports of the integrity found to be the rule in Indian village life, quoting Sleeman's insistence that "no one knows the Indians who does not know them in their village communities—what we should now call their *communes*."

The virtues of the Hindus, Sleeman said, were intimately connected with their village life. Max Muller added:

That village life, however, is naturally the least known to English officials, nay, the very presence of an English official is often said to be sufficient to drive away those native virtues which distinguish both the private life and the public administration of justice and equity in an Indian village. . . . [Sleeman] assures us that falsehood or lying between members of the same village is almost unknown.

Müller gives this account of the elements in Indian tradition which encourage truth-telling by the villagers:

Now among them, where rights, duties, and interests begin to clash in one and the same village, public opinion, in its limited sphere, seems strong

enough to deter even an evil-disposed person from telling a falsehood. The fear of the gods also has not yet lost its power. In most villages there is a sacred tree, a pipal-tree (*Ficus Indica*), and the gods are supposed to delight to sit among its leaves, and listen to the music of their rustling. The deponent takes one of these leaves in his hand, and invokes the god, who sits above him, to crush him, or those dear to him, as he crushes the leaf in his hand, if he speaks anything but the truth. He then plucks and crushes the leaf, and states what he has to say. . . .

In their punchayets, Sleeman tells us, men adhere habitually and religiously to the truth, and "I have had before me hundreds of cases," he says, "in which a man's property, liberty, and life has depended upon his telling a lie, and he has refused to tell it."

Sleeman's job was suppression of Thuggee, the practice of professional assassins who committed their murders under a kind of religious sanction, so that he had, as Müller remarks, "ample opportunities of seeing the dark as well as the bright side of Indian character."

Müller finds the initial sources of Indian morality in the sacred literature of the land. He gives passages from the Upanishads and other scriptures, then quotes from the *Laws of Manu*:

Evil-doers think indeed that no one sees them, but the gods see them, and the old man within. . . .

Self is the witness of Self, Self is the refuge of Self. Do not despise thy own Self, the highest witness of men. . . .

If, friend, thou thinkest thou art self-alone, remember there is the silent thinker (the Highest Self) always within thy heart, and *he* sees what is good and what is evil.

Of those who told the truth only from fear of punishment, Muller suggests that while it might be said that "they have not yet learned the value of a lie, . . . even such blissful ignorance ought to count in a nation's character." Apparently, there were grades of impulsion to morality among the Indian people, the lowest being fear, another being shame before one's friends or elders, still another, obedience to a god in a tree, while the highest was the inner voice of conscience.

An Indian lawyer told Sleeman that "three fourths of those who do not scruple to lie in the courts, would be ashamed to lie before their neighbors, or the elders of the village."

A more complex but essentially parallel analysis of moral behavior is given by Lawrence Kohlberg, who spent years studying the foundations of moral decision in a reformatory for boys. He found that developing moral attitudes pass through six stages. *Time* for June 28, 1971, gave an excellent summary of this research:

In the first of these six stages, which Kohlberg established after interviewing a cross section of youngsters about imaginary moral problems, "right" behavior is based on fear of punishment. In the second stage, the criterion is selfish need—as in the case of a child who believed a man should steal a lifesaving drug for his wife because if she dies "there'll be no one to cook the food."

At Stage 3, a child is "good" to win approval; by Stage 4, the law is respected and upheld out of simplistic concern for law and order. Those who progress to Stage 5 believe that the purpose of the law is to preserve human rights and that unjust laws should be changed. In the opinion of those who reach Stage 6, unjust laws may be broken, because morality is grounded not in legality or in specific rules like the Ten Commandments but in abstract principles and respect for the individual. . . .

Kohlberg's reformatory subjects were operating primarily at Stages 1 and 2 when the experiment began. Although most of them are moving into Stage 4, their problems are far from over. As Kohlberg himself acknowledges, moral judgment does not ensure moral behavior, it is hard to act justly in an unjust world, especially for those too weak to resist temptation. Prison rules are often unfair, and prison staffers are not necessarily more moral than inmates. Outside, released prisoners may find a society that may not help reinforce their new-found morality; although U.S. democracy is founded on Stage 5 thinking, Kohlberg estimates that fewer than one out of three Americans have reached that level.

While "imaginary moral problems" may not be as reliable a source for information about human decision as the experience of years of court proceedings, there seems little doubt that Prof. Kohlberg has come upon very real differences

among human beings, so far as their moral outlook is concerned. Both in Indian villages, a century ago, and today in America, morality begins with accountability to external conditions, moving upward, slowly, to reach the ethical consciousness of the self within.