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THE QUESTION OF FREEDOM

A PASSAGE quoted from Anne Sayre, a contributor to the *Bulletin of the Atomic Scientists,* in MANAS for April :11 (page 7), seems of such enduring importance as to merit further exploration. Miss Sayre is engaged in questioning the appropriateness of the scientific method, as currently practiced, in the field of social planning, as the means for designing the Good Society, or, in the words she uses, for realizing the "dream of a new humanism." The passage we now repeat seems to isolate the area of human experience which is of the greatest importance to mankind, yet which has suffered consistent neglect by virtually every kind of scientist. MISS Sayre writes:

> . . . the pity is that science, by definition, is not interested in the study of man as an individual. Even the most modern science tends to remove from consideration as irrational, trivial, unimportant, or fictional a great many matters having to do with humanity. . . including the mysteries of creativity and individuality. This simplifies the scientist's problem, but it seems to advance us no further toward our dream of a new humanism. . . .

It is not difficult to put together a historical explanation of the neglect of the individual by science. The individual, insofar as he is an individual, happens just once. Thus the individual, as individual, is not a datum for scientific study. The scientist is interested in establishing the existence of natural-laws, and laws, in present-day science, as John Dewey said: "are *formulae for the prediction of the probability of an observable occurrence."* But "creativity and individuality" are by definition unpredictable. What can be predicted of human behavior as part of some "mechanistic" sequence, however refined, is neither creative nor individual. One might even say that the predictable is not the human aspect of human behavior, but the sub-human. To the extent, then, that men are creative and individual, they stand outside the field of scientific investigation.

This does not mean, of course, that "creative" activity, taken as given in experience, has been entirely ignored by scientists. Lewis M. Terman's ponderous work, *Genetic Studies of Genius,* was a full-dress attack on the problem, but with results less than encouraging. The reader will be chiefly impressed by the lack of a "scientific" explanation of genius, admitted in sentences like the following:

> Recent developments of measuring intelligence have furnished conclusive proof that native differences in endowment are a universal phenomenon, and that it is impossible to evaluate them (I, vii).
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> The problems of genius lie in its nature, its origin, and cultivation. . . . Our positive knowledge of the physical, mental, and personality traits of gifted children has been extremely limited. . . . To what extent genius can be created or destroyed by right or wrong training is entirely unknown (I, Viii) .
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> Our data show that individuals of the various social classes present the same differences in early childhood,: a fact which strongly suggests that the causal factor lies in original endowment rather than in environmental influences (I, 66).

Yet no data exist to reveal laws by which superior mental ability is transmitted (I, 111), and there is no certainty about the extent to which the superior achievement off relatives is indicative that the gifted subject comes from biologically superior stock (III, 8). There is no known correlation between religious conviction and intelligence, and no observed relation between musical achievement and intelligence (II, 94, 106). Terman concludes: "Children on all levels of mental ability must be recognized as unique individuals with unique educational and vocational needs."

There is an obvious value in studies which exhibit the elusive character of genius or creative ability, but there is a sense in which even Terman's researches suggest the hope that the "causes" of originality may be discovered, and this in turn implies that, once those causes are known, genius may be put on a production basis. We are not trying to make Mr. Terman contradict himself, but to propose that when the scientific method is applied to

the study of "creativity and individuality," the result is the forming of a tacit assumption that these qualities are not really what the words suggest, namely, *sui generis*, but are obscurely caused by external factors of "conditioning," for which, ultimately, a formula may be produced.

There can be no doubt that human achievement is modified by the conditions imposed by both heredity and environment. These, however, do not make human beings uniform, although they undoubtedly lend certain uniformities to human behavior. It is these uniformities which become predictable, and therefore subject to scientific investigation. But if there should be a factor of authentic originality in human beings, present in varying degree, we then have an element—call it "X"—which is properly spoken of as *individual*, and which is the essence of being human.

The difficulty, for the scientist, lies in his inability to admit the existence of anything like an "X" factor in man. That is, while he may freely admit it as a human being, he can not admit it as a scientist, except as a confession of the limits of his science. The physicist, however, may be quite ready to declare for an "X" factor, since physical laws, so far as he can see, would not suffer any noticeable disturbance from a center of independent causation in human beings. Not so the psychologist, who is attempting to explain human behavior without reference to human individuality, and who would feel considerable frustration if required to allow for a "free agent" somehow present within the complex of the human psyche.

The problem, then, is one of postulates regarding human freedom or individuality which scientists can live with and still practice their science.

Ordinarily, the mechanistically trained scientist will regard the idea of a free agent in man with as much disfavor as he regards the idea of a God who can inject "new" causes into the cosmic process. One seems as bad as the other, from the viewpoint of those who endeavor to establish scientific laws on a firm foundation. It is for this reason that both theological claims regarding God and religio-philosophic proposals concerning a human soul are either denied or ignored by most scientists whose researches are concerned with the fields of human behavior, and by many scientists, on general principle, regardless of their specialty.

A number of thoughtful scientists have wrestled with this issue at the philosophical level. One of the most distinguished efforts to resolve the difficulty is found in Hermann Weyl's *The Open World* (Yale University Press, 1932), in which the German mathematician sets the problem as having come to a head in the seventeenth century:

> In the philosophy of Descartes, which is the most universal expression of the thought of this epoch, the new mechanical interpretation must therefore be reconciled with the idealism of freedom; for an intensified consciousness of dignity and personal freedom resulted from the self-certainty of reason, which is so often and so naturally bound up with the constructive power of the mathematical mind. But for rational thinking, the duality of natural determination and personal freedom involved a serious antinomy, since the concrete person of the individual is embedded in nature.
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> It is well known that the first modern theory of determinism was carried through by Hobbes. One of its clearest formulations we owe to Laplace. I quote his famous words from the *Essai philosophique sur les probabilities:*
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> "An intelligence which knows the forces acting in nature at a given instant, and the mutual positions of the natural bodies upon which they act, could, if it were furthermore sufficiently powerful to subject these data to mathematical analysis, condense into a single equation the motion of the largest heavenly bodies and of the lightest atoms; nothing would be uncertain for it, and the future as well as the past would lie open before its eyes. The human mind, in the perfection to which it has carried astronomy, offers a weak image of such an intelligence in a limited field."

Weyl continues the discussion, pointing out that mathematical versions of natural law are actually indifferent to causal relations, adding: "A first consideration is this: physics has never given support to that truly consistent determination which maintains the unconditioned necessity of everything which happens." With the authority of his stature as a mathematician, Weyl says that every physical system, whether that of Newton, Laplace, or of modern field theory, includes a kind of "open place"

where freedom is a theoretical possibility. The problem, therefore, is not that science actually denies the possibility of freedom, but in how to propose that freedom is an operative reality. Weyl shows that, historically, Descartes assigned the freedom to God:

> Descartes argued thus: since neither nature nor the distribution of the material constituents of the world nor their initial velocities are to be derived by pure reasoning, God could have set up the natural order in innumerable ways; He chose one to suit His purpose. Newton makes similar remarks in the conclusion of his *Optics.* But this degree of arbitrariness seems to me insufficient to admit human free will. My own destiny in the world from birth to death could still, on this view, be fixed by the state of the world in a time-section which has no contact with my existence, with the world-line of my life, since it precedes or follows it. Hence Kant's solution of the dilemma (the meaning of which was so vague even to himself that he found difficulties in understanding the changes of human character) can only be carried through honestly if one believes in the existence of the individual from eternity to eternity, in the form of a Leibniz monad, say, or by metempsychosis as the Indians and Schopenhauer believe. Nevertheless, it is of sufficient importance that physics has always admitted a loophole in the necessity of Nature.

It is of some interest that the Leibnizian monad is increasingly popular among thinkers who seek a concept of the individual which will meet the difficult requirements of a rational intelligence—an intelligence which is also, as Weyl puts it, "embedded in nature." W. Macneile Dixon adopts the theory of the monads in *The Human Situation;* William Ellis seems to incline to it in his *Idea of the Soul in Western Philosophy and Science;* and Prof. H. H. Price of Oxford proposes that the Leibnizian doctrine would greatly reduce the difficulties in explaining the phenomena disclosed by modern psychical research *(Philosophy,* October, 1940).

Herbert Wildon Carr accompanied his edition of the *Monadology* (University of Southern California, 1930) with several brief essays to show how Leibniz could assist modern philosophers out of the difficulties created by Cartesian thought and the entirety of materialistic assumption. While Leibniz' doctrine is purely metaphysical and abstract, the relief it may afford to the problem of the individual should make its study worth while. Carr defends the monadological theory as superior to the Newtonian universe of matter, observing:

> The monadology rejects as self-contradiction and inconsistency the idea that dead, inert, material atoms or mass-units are or can be constituents of a universe. There is nothing dead, nothing purely inert in the universe. The Democritean concept of the atoms and the void is rejected because mathematically the atom is not a unit, but divisible to infinity, and physically it is not simple. The reals are monads, simple substances, self-centered subjects of experience, whose activity Consists in perception, and whose perceptions are the apprehension of the whole universe, limited in degree of clearness or obscurity. . . . The mind in Leibniz's view is a simple substance, an indivisible unity which enters into compounds. The body is composite. Yet every part of the body has its own individual life, and the whole body-mind organization is a harmony of individual living active subjects. . . .
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> The monads are not ideal in the sense that their existence is mind-dependent. They are things-in-themselves. At the same time monadology is the antithesis of materialism. The universe of monadology is a living thing and its and its constituent elements are living things. There is nothing dead, no sub-straturn of lifeless, mindless stuff. The monads though self-contained enter into compounds. The Cartesians conceived the world as a vast machine which had been set in motion, its large wheels interlinked with and receiving movement from its small wheels, the whole being self-contained. Leibuiz conceived the world as a living individual every part of which was also an individual, living its own life and subserving by its activity the organic life of the whole.

Some day, perhaps, a metaphysician equal to the task will draw out and illustrate the character of the sciences as they would appear if based upon this conception of the ultimate nature of things. In these terms, the self-conscious or *human* monads would have the *capacity* for free action, however seldom they exercise it, and would be regarded, as by the Platonists, as the self-moving units which animate the world.

A theory of this sort, at any rate, is surely necessary for there to be any real beginning of a science which is no longer indifferent to the "mysteries of creativity and individuality" in human beings.

REVIEW
AND HEAVEN, TOO

NORMALLY, one would expect a serious psychic researcher to shy away from a discussion of heaven and hell. An investigator who approaches the question of human survival has problems enough in meeting the objections of other scientists, without inviting the claim that he has a theological axe to grind. It is the achievement of Prof. H. H. Price, professor of logic at Oxford University, to have shown, however, that such an interest is quite proper for a psychic researcher, and from the scientific point of view.

In a paper entitled, "Heaven and Hell from the Point of View of Psychic Research," printed in the Bombay monthly, the *Aryan Path* (for January and February), Prof. Price builds something of a bridge between the doctrines of ancient Indian religion, concerned with the subjective after-death conditions of *Devachan* and *Kama Loka,* and the various evidences for survival of the human personality now under the scrutiny of Western psychic researchers.

Prof. Price begins by explaining how a professor of logic—and scientifically-trained researchers—can afford to give time to the meaning of such concepts as "heaven and hell":

> If psychical research has not even succeeded in establishing that we survive death at all, how can a psychical researcher have anything to say about such subjects as Heaven and Hell? If he is not yet certain that there is any "next world," surely he can have nothing to say about the detailed arrangements which may be supposed to hold in such a world? I do not think this conclusion follows. As I have said, we do have evidence which favours the survival hypothesis. The survival hypothesis is one of a large group of paranormal facts; and for some of them it is much the simplest evidence, even now, to justify us in taking this hypothesis seriously. If so, one thing the psychical researcher should do is to work at the implications of the idea of survival itself. In particular he should consider what kind of a world we may be supposed to live in after death, if we do survive death. Indeed, he needs to consider this question in order to make the survival hypothesis fully intelligible. We cannot attach any clear meaning to the term "survival" until we can form some idea, however rough and provisional, of the kind of experiences which discarnate personalities may be supposed to have.

It is for these reasons that Prof. Price examines the concepts of heaven and hell—and the Indian concepts of kama loka and devachan—in the context of psychical research. Two rather different forms of evidence deserve particular attention: First, séance phenomena and paranormal perception; and second, the world of every man's dreams. Speaking of séance phenomena, Prof. Price points out that "mediumistic communications suggest strongly that there are *many* next worlds, differing with the different desires and memories of their inhabitants. If this were not so, the many different descriptions of the after-life which we get in mediumistic communications would be irreconcilable."

The relationship between dreams and a possible form of survival is clear enough. As Price says: "It is not too difficult to form some idea of what the Other World might be like according to the 'disembodied' conception of survival. The obvious suggestion is that it would be a kind of dream world; or, to put it the other way round, the dreams we have in this present life would be a kind of foretaste of the experiences we might expect to have after death. In dreams we are cut off from sensory stimuli. The sense organs cease to operate. But this does not at all prevent us from having experiences, sometimes very vivid ones. The perceptible objects we are aware of when awake are replaced by mental images, and these mental images are the product of our own memories and desires. If we retain our memories and desires after death (and there can be no survival at all unless we do, if the argument of the last paragraph is correct), these memories and desires may continue to manifest themselves by means of mental images, as they do in this present life when we are dreaming." He continues:

> In this present life we wake up eventually from our dreams. After a time the sense organs begin to operate again. The dream images fade away and we are forced to attend to our physical environment. But suppose we could no longer wake up. Suppose that someone's sense organs have ceased to operate altogether, because his body is dead. Then he would just go on dreaming. He would have passed from this world to the other world or the next world. This "passage" from the one world to the other would not, of course, be a change of place. It would be a change of consciousness, somewhat like the change which occurs when we fall asleep and begin to dream. . . .
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> We may notice that such a world would appear perfectly real to the disembodied soul itself, as dream objects usually do now while we are actually dreaming. We are often told in mediumistic communications that many discarnate personalities are unable at first to realize that they are dead. This, I think, is perfectly credible. Their memories and desires would supply them with the same old familiar scenes, and it might not be at all easy for them to discover that what they are now aware of is not the physical world but a world of mind and coherent mental images. Among these images there might be one which closely resembled the physical body which the discarnate experient had had when he was still alive. He might have a dream environment.

A philosophical dimension arises with the attempt to fit man's moral or ethical sense into a pattern of what may be expected "after death." Here it is Dr. Price's purpose to show that, while there is a definite boundary between psychical research and what he calls the discoveries of "spiritual philosophy," the religious doctrines he has been surveying indicate that man's natural expectation of justice after death—in some kind commensurate reward and punishment—may easily dovetail with the sort of survival for which psychic research can provide evidence. Belief in an after-life is not, therefore, simply a matter of wishful thinking, because a careful study of the possibilities does not suggest any reason why the after-life should be pleasant or unpleasant, nor why one should not pass through a series of relative "hells" and "heavens." In this connection. Dr. Price shows an especial appreciation for the details of Hindu doctrine, finding in Eastern philosophy and religion a more philosophical approach to the problems now confronting psychical researchers than has ever been noted in Western religion.

> The belief in survival is rejected by many people today on the ground that it is too comforting to be true. I suggest that this is a fundamental misconception. We ought rather to bear in mind the old Christian tradition of Purgatory. The next world might have some very unpleasant features indeed. A nightmare from which one does not wake up is not a pleasant idea. Or perhaps one does wake up from it in the end, but not until the conflict of desires ceases. In time, perhaps, the one desire or the other might wear itself out through the very process of being fulfilled. But, for all we know, this might take a very long time.
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> So far I have been concerned with the "world of desire," or rather "worlds of desire," for we have seen that there would be many different ones. (Compare the Hindu conception of *Kama Loka.*) In such a hypothetical picture of the afterlife, there is room for Purgatory, as I have just remarked, and there is room for Paradise too, or, rather, there is room for many Purgatories and many Paradises.

Good material for reflective speculation may come out of this, and at an auspicious time, what with Bridey Murphy in all the newspapers, and even casting a ghostly shadow in the television circuits. Perhaps a new kind of natural philosophizing will be born from the puzzlement occasioned by such renewals of ancient questions. Today, for the first time in their lives, innumerable people are asking—whatever the previous beliefs to which they have been committed—"What *really* happens when the body dies?"

COMMENTARY
COURAGE OF MIND

SEVERAL of the articles in this week's issue indicate a loosening of the bonds of intellectual orthodoxy. There will always, doubtless, be "schools" of thought, and it will continue to be possible to speak of a particular "world-view," in contrast to the prevailing opinions of another epoch. But if, in any such period, we are able to keep open and inquiring minds, refusing to grant the dominant orthodoxy the power of censorship, whether by law or by simple weight of psychological pressure, then freedom of thought will be something more than a slogan which is repeated without comprehension of its real meaning.

There is nothing wrong with an "orthodoxy" in the sense of a general agreement. Men who tend to think along the same lines may contribute a great deal by elaborating most or all of the possibilities of thought in a given direction. Having done this, they may themselves seek fruitful innovations or changes, and so maintain a welcoming attitude toward discovery. It is the orthodoxy which seeks power over other minds, and fears contradiction or difference, that must be avoided. For power, in the field of the mind, is the instrument of nihilism.

It was perhaps inevitable that the freedom of scientific thought, once victorious over religious orthodoxies, should acquire a little of the power-seeking habits of institutional religion. Even though the principle of survival for science lies in the rejection of institutional authority, it was hardly possible that the human nature of scientists should be completely devoid of tendencies which had been standard equipment of Western man for about a thousand years. But scientific orthodoxy, unlike religious orthodoxy, is a contradiction in terms. Thus scientific thought, whatever its institutional limitations, has only to become faithful to its avowed first principles to renew its freedom.

This seems an appropriate place to note that, throughout the heyday of scientific materialism, there were those in the ranks of science who insisted upon submitting a minority report. William James was one such man in the United States, and William McDougall, of both England and America, was another, both of them psychologists.

The mind of William James was of such a metal that he was unable to think in the terms of mere conformity. A man of great intellectual hospitality, he examined whatever the currents of experience brought before him, permitting no known prejudice or preconception to cloud his judgment. McDougall, while a psychologist, thought and wrote as a philosopher. He set his energies against the wave of mechanistic beliefs which hampered psychological science throughout the first half of the twentieth century, and kept alive a way of looking at human experience that may now gain dramatic revival at the hands of other scientists.

Courage of mind is indeed the only effective defense against sectarianism, whether of science or religion. It is the sort of weapon which has no human enemies, and which can harm or defeat only the traits and tendencies which prevent other men from becoming wholly human.

CHILDREN
. . . and Ourselves

THE SENIOR HIGH

As a good antidote to fanaticism on the subject of teaching methods, we recommend "Carpentry, Typing, and a Little Shakespeare," by Hannah Lees, in the Feb. 23 *Reporter*. This article amounts to a summary of the attitudes and problems characteristic of a typical large city high school. With the present furor raging between devotees of the "new education" and the "classicists," this is good prose for any parent to encounter—sober, balanced, and interesting.

The school is "Upper Belfield Senior High," and also something of every other public secondary institution. "Mr. Julius Webber, Principal" is also fictional, but Miss Lees' interview with him is clearly genuine. "Webber" became the head of this school after twenty years of teaching English, and had served as principa1 for four years. During this twenty-four-year tenure, he observed many transitions. For example, in 1910—the same school building is still in use—boys and girls were forced to enter from opposite sides of the school and were kept completely separated thereafter. Then, in the 1920's, *six thousand* pupils were being taught in buildings now housing only twenty-eight hundred. So some conditions—social and spatial—have undeniably improved, despite what the critics say.

But we are particularly interested in Mr. Webber's remarks about college preparation and compulsory high-school attendance. Generalizations to the effect that "academic standards are much lower than they used to be," in Webber's opinion, must always be qualified by the fact that innumerable students attend secondary schools because they *have* to, not because of any personal urge to fit themselves for "the higher learning." And one cannot assume that all those who simply bide their time until the required age of seventeen will take "carpentry and typing" instead of "Shakespeare." Some, perhaps, on a moment's whim, or because of impressions gained from some more cultural companion, will take on the college preparatory work—and either stumble through it lackadaisically and on into the university or give it up in their senior year. Many will see the justice in Mr. Webber's recollections:

> "Fifty years ago when I was in grade school—it was a poor neighborhood but not really underprivileged—I was the only boy to go on to high school. One other boy went on to manual-training school. The rest went right to work. Even twenty-five years ago only the fairly bright students finished high school. But today the law requires that all boys and girls in the state go to high school till seventeen, whether they can learn or not, whether they want to learn or not. It is completely unrealistic to keep saying 'teaching has changed, academic standards have changed.' It is the student body that has changed. We get boys and girls who can't read, who can't add or subtract. We give them remedial work, of course, but sometimes we graduate them when they still can't read or do sums. It's been the policy for some time, you know, not to keep a student back just because he can't do the work."

Of the college preparatory group, only 42 per cent actually asked for college transcripts in 1954, 49 per cent in 1955. The greater proportion of students are enrolled in the business courses—in a ratio of 10 to 9, which still, in Mr. Webber's opinion, crowds the college preparatory courses with a 50 per cent liability. On the other hand, many of the more ambitious women students who *could* do well with college preparatory work, take advantage of financial opportunities: "The big companies are after them, you see. They can go right out of the business course here and get jobs at $45 and $50 a week—more if they can pass civil-service examinations, as a good many of them do."

The explanation:

> "There is another angle to this so-called lowering of standards in the school. Ever hear of motivation? Well, there isn't much in our life today, is there, to make youngsters want to learn—learn intellectually, that is. I had a boy say to me just last month, 'I don't need to know nuttin to get a good job. My old man don't know nuttin and he makes a hundert, a hundert and twenty-five a week driving a

truck.' I tried to tell him what you had to know to drive a truck: keeping track of merchandise, supervising loading and unloading, checking it in and out. He just laughed at me. 'All my old man does is back his truck up in Camden, drive it to Baltimore, and back it up again there. He don't know nuttin about that stuff. He don't need to. I don't need to neither. I can get a good job'." Dr. Webber shrugged.

"And it goes away beyond that. I was talking to one of our former students the other day, one of the dropouts. He's a bricklayer. I asked him if he didn't ever wish he'd gone on through school, bricklaying being a seasonal job. 'Well,' he told me, 'even allowing for seasonal layoffs, any bricklayer who's willing to work reasonably hard can make about eight thousand a year.'

"We know a lot of our slow learners are going to end up making quite a lot of money and they all have a vote. We try to make good citizens out of them and I think we mostly do. Not through classes in civics—through living it. But they don't have to *read* today to get along. They can listen to it or they can watch it. And which would most people rather have their daughter marry today, a man with a Ph.D. or a man with a Cadillac?"

Mr. Webber feels that what the public "simply can't seem to get through its head" is that you can "push" learning only so far, and that compulsion by law works against the spontaneous desire to learn. The most successful teaching has nothing to do with "systems," but flows from the genius of some individual who truly "breaks through" to his pupils. In "Upper Belfield," the language department is one of the most successful—because of the character of the language department head; the flow of impressions arising from interested study of foreign languages probably broadens the outlook of undergraduates much more than civics courses, if the quality of teaching be less.

The interracial problem does not plague this high school. While friction and some rioting have occurred elsewhere, in "Belfield," the mere fact of daily proximity of the races in school has made harmony easy to achieve. But interestingly enough, the students have little liking for speeches in assembly by someone from the fellowship or brotherhood groups. Hannah Lees quotes Mr. Webber:

"I know they want to be helpful but I'm not sure they are. The kids don't really like it. I've heard them say, 'Problems? We don't have any problems. We get along fine.' I think they do, too. We've had a Negro president of the student council. There are always Negro boys and girls in the student government.

"I can't tell you the precise ethnic make-up of the school. I don't know it myself. We're not allowed to record race or religion today, you know. I'd say we have roughly forty per cent Negroes and maybe thirty per cent Jewish."

There are some things, then, that the average high school manages to accomplish despite its limitations. One gains the impression from this *Reporter* article that high-school teachers, on the whole, are doing an excellent job, considering the unfavorable conditions which our culture imposes on them. And this impression is a nice one to hold, since, in respect to the formation of habits of thinking, the high-school age is the most impressionable of all. The youth who has never known a bit of hero-worship for a teacher, or who has not found a keen enjoyment in being able to discuss class or other problems with his teacher *after* class, has missed a great deal. From such small beginnings comes the realization that a "mind alive" is a mind which makes the rest of life worth living—and for selection of standards of great import. Good teachers supply the opportunity for these discoveries, and we, mindful of the shortage of teachers, both quantitatively and qualitatively, may be grateful for the good ones that are at work today.

FRONTIERS

The Land, the Earth, the Planet

A RECURRING theme in these pages is the growing self-consciousness of human beings in respect to themselves and their problems. This psychological "coming of age" in our time lends an air of discovery to much of contemporary writing and adds a dimension of subtlety to the reflective essay. There is even a kind of beauty in these evolutions of self-awareness—an intellectual beauty which is sometimes moral as well.

As part of this development, there is also what may be called the new "organicism" of thought in many fields. "Organic" is a word of various meanings, yet in each case the root suggests a natural growth, as distinguished from artificial cultivations or mechanical structures. "Organic gardening" is a byword of many who began as dilettantes of the garden, but have become enthusiasts of the natural in all forms of agriculture. "Organic" doctrines, it is true, especially organic political doctrines, have long been unpopular in liberal circles as claiming the authority of Nature, or Religion, for authoritarian control and practices. The argument for control by an elite or an aristocracy and for hierarchical arrangements in authority often develops by a species of "organic" logic, so that the term is initially suspect when made to apply to a political metaphysic The organicism we are talking about, however, seems of a sounder sort.

Jacquetta Hawkes' book, *A Land* (Random House), is a mature illustration of the thinking we have in mind. This is one of the few books which seem to represent a successful assimilation of the accumulating wealth of scientific facts about the natural world, yet suffer no intoxication from all this "knowledge." One gets the feeling that Miss Hawkes is uniquely "at home" on the earth, and especially in England. It is as though, through both knowledge gained from science and a feeling appreciation of the English countryside, she has made the earth a part of her body—the fens and moors, the riverbeds and great rock formations of England, extended organs and limbs of her being.

The urgencies of man's alienation from the planet have been chronicled recently as tracts for the times in books like Fairfield Osborn's *Our Plundered Planet*, and Vogt's *The Road to Survival.* Miss Hawkes writes with no desperation, yet it seems possible that a deeper linkage with our mother Earth may come from her perceptive report, since conservation, like good manners, is by her taken for granted. We would not say that She is "like" Joseph Wood Krutch in his appreciation of nature, but that one feels a fitness in the fact that both Miss Hawkes and Mr. Krutch write in the same epoch about both man and nature.

Many of the facts to be found in textbooks are in Miss Hawkes' volume, yet in *A Land* they are not facts to be "studied," but flowing events in a natural romance. She is not instructing the reader, but sharing her pleasure:

> All the many varieties of sandstones and clays are formed by simple deposition, the limestones and dolomites mainly by precipitation. Chalk, once believed to have been built entirely from the bodies of minute sea creatures, is now recognized as a chemical precipitate, probably, however, created by the action of living algae and certainly crowded with the minute but elegant forms of the foraminifera. I like to think of the seas where chalk was forming clouded with white as though from a snow storm—a fall that lasted for thirty million years and lay to a depth of a thousand feet.

Elsewhere the author speaks of buildings made from chalk, and of the great quarries mined by Christopher Wren for the rebuilding of London after the Great Fire. When Miss Hawkes looks at the English landscape, she sees not only its beauty and repose, but all the dynamism of its history, both geological and human. She swims in knowing ways throughout a vast sea of life, and this touch with several dimensions of existence leads her to say:

> I think that we are returning to an awareness of our unity with our surroundings, but an awareness of

> a much more exalted kind than anything that has existed before. The primitive tribesman, to go no further back than the early days of our own species, was so deeply sunk in nature that he hardly distinguished himself from his environment or from his fellows.

Now, after centuries of loss of that primeval unity, comes a return to nature, but with full consciousness:

> Mind, which at first denied men their instinctive sense of wholeness, is at last returning such a sense, but on its own mental level. Consciousness is melting us all down together again—earth, air, fire and water, past and future, lobsters, butterflies, meteors, and men. As for me, what other force has driven me to attempt this book?

A rare passage lights up Miss Hawkes' meaning:

> . . . at this one moment of time I can feel consciousness stretching from the crystalline virus that blights tomato plants, through fish, reptiles and mammals to the minds of men. Indeed, it is obviously only an expedient convention to stop with the forms of life that are earliest in time, or simplest in space. Consciousness must surely be traced back to the rocks—the rocks which have been here since life began and so make a meeting place for the roots of life in time and space, the earliest and simplest. Why, indeed, stop with this planet? Even if nothing like the human psyche and intellect have developed elsewhere, it is necessary in an indivisible universe to believe that the principle of consciousness must extend everywhere. Even now I imagine that I can feel all the particles of the universe nourishing my consciousness just as my consciousness informs all the particles of the universe.

A fascinating bit in *A Land* concerns a variety of rock often found beneath the softer chalk and used with it in building. The rock appears in the form of what are called "sarsen stones," so named because the Medieval English felt that their angular shape and harsh contours were alien to the chalk, reminding the people of the fierce Saracens. The Cyclopean ruins of Stonehenge, Miss Hawkes informs us, were built of sarsen stones by the architects of the Bronze Age. She comments:

> If it was true to say that the Victorian Age would not have been the same without the Carboniferous rocks, it is a much simpler and more obvious truth that without our sarsens we should be deprived of our two most heroic memories of the Bronze Age. Stonehenge is a fascinating example of the effects, for good or ill, which the mental influence of a people can have on the physical inheritance of their land. If its incorporation in a great work of art—book, poem or painting—can immensely heighten the quality and significance of some natural or artificial feature, so also it can be debased by man. Cafes and chewing gum, car parks and conducted excursions, a sense of the hackneyed induced by postcards, calendars and cheap guide books has done more to damage Stonehenge than the plundering of some of its stones. It will never again be possible to see it as Constable did when he made his studies, a place of mystery against a background of storms and flying showers; it is doubtful if it could ever again have the deep impact on any man that it once had on Wordsworth; it seems no longer a setting fit for one of Hardy's gigantic, stereoscopic scenes. Men made it and men have destroyed it, the whole action taking place in the realm of the imagination.

The destructiveness of man has been a theme of many writers, and among those who have given attention to the subject, no one is more interesting than George P. Marsh, an American philologist who in 1874 published a large book, *The Earth as Modified by Human Action.* Marsh was a pioneer investigator in this field and his book is rich with odds and ends of information, such as the astonishing fact that, according to Schliemann, "the quantity of dust brought by the scirocco from Africa is so great, that by cutting holes in the naked rocks of Malta enough of Libyan transported earth can be caught and retained, in the course of fourteen years, to form a soil fit for cultivation." One who broods on the loss of rich top soil from the Mississippi Valley every year is likely to be impressed by the care with which the Maltese of whom Schliemann wrote cherished a few ounces of Egyptian silt, brought to them across the Mediterranean by desert winds! Maltese agriculture, at any rate, is quite possibly pursued largely on "foreign soil," for, as Marsh says:

> Parthey and older authors state that all the productive soil of the Island of Malta was brought

> over from Sicily. The accuracy of the information may be questioned, . . . but similar practices, on a smaller scale, are matter of daily observation in many parts of Southern Europe. Much of the wine of the Moselle is derived from grapes grown on earth carried high up the cliffs on the shoulders of men, and the steep terraced slopes of the Island of Teneriffe are covered with soil painfully scooped out from fissures in and between the rocks which have been laid bare by the destruction of the native forests.

In his opening chapter, Marsh discourses at length on human destructiveness, arriving, however, at a curious conclusion:

> . . . man is everywhere a disturbing agent. Wherever he plants his foot, the harmonies of nature are turned to discords. The proportions and accommodations which insured the stability of existing arrangements are overthrown. Indigenous vegetable and animal species are extirpated and supplanted by others of foreign origin, spontaneous production is forbidden or restricted, and the face of the earth is either laid bare or covered with a new and reluctant growth of vegetable forms, and with alien tribes of animal life. These intentional changes and substitutions constitute, indeed, great revolutions; but vast as is their magnitude, they are, as we shall see, insignificant in comparison with the contingent and unsought results which have flowed from them.
>
> The fact that, of all organic beings, man alone is to be regarded as essentially a destructive power, and that he wields energies to resist which Nature—that nature whom all material life and all inorganic substance obey—is wholly impotent, tends to prove that, though living in physical nature, he is not of her, that he is of more exalted parentage, and belongs to a higher order of existences, than those which are born of her womb and live in blind submission to her dictates.

There is a passage in which Mr. Marsh anticipates Miss Hawkes:

> Purely untutored humanity, it is true, interferes comparatively little with the arrangements of nature, and the destructive agency of man becomes more and more energetic and unsparing as he advances in civilization, until the impoverishment, with which his exhaustion of the natural resources of the soil is threatening him, at last awakens him to the necessity of preserving what is left, if not of restoring what has been wantonly wasted.

But as Joseph Wood Krutch has pertinently observed, "Conservation is not enough." What is needed is rather the sense of wholeness celebrated by Miss Hawkes, from which conservation flows as a natural expression of reverence for life, rather than from a merely prudential regard for where the meals of the next century or so will be coming from.

Marsh's conception of man as having a "more exalted parentage" may strike some readers as strange, yet it has the support of a Luciferian or Promethean logic.

Man is certainly a rebel against all compulsions, and if mind has been the instrument of revolt against nature, it may also be the means of a return from alienation to unity at a higher level. It may be necessary for human beings to discover the laws of a Promethean social compact with the rest of life, in order to resolve the dilemma which offers a vegetative conformity on the one hand, and threatens the nemesis of a ravished and plundered planet on the other.

Other writers are pursuing these themes. The Rodale Press, publisher of *Organic Gardening* and other magazines in this field, in 1947 issued *The Earth's Face and Human Destiny,* a provocative study of the reciprocal ecology of Nature and Man, by Ehrenfried Pfeiffer. Decentralists will value this book as suggestive of the fact that balanced economies make for a balanced landscape. Even war, ironically enough, has unintentionally contributed a constructive influence in this direction. Mr. Pfeiffer writes:

> Switzerland, the oldest democracy of our present age, has demonstrated that small industrial enterprises can so penetrate the rural districts that the workers are anchored to the land, with small farms or at least subsistence plots to work in their free time—truly an ideal situation socially and economically. In such regions there is an extraordinarily solid, settled population, disinclined to revolution. The interesting thing is that this interpenetration occurs most often exactly where ideal landscapes most often evolve; among mountains, where there is a balanced proportion of forests, cleared fields and gardens. Such landscapes can always digest a certain number

> of factories. The labour being constant, a line of skilled workers for special types of activity can be developed—for instance, experts in precision instruments, optical goods, clocks, shoes, books, toys, and furniture.

It might even be argued that the truly practical always blends with the truly mystical—to employ a vague but useful word—and that a whole gamut of lines of thinking, all in this general direction, is rapidly developing throughout the world—from Borsodi, and others in the United States, the French Communities of Work in Europe, to Vinoba's movement in India, as well as countless other grass-roots developments, some sectarianly religious, some socially based, some even a bit fanatical, yet all reaching toward a kind of harmony with nature which has so far escaped the dominant patterns of Western culture.

This seems a good place to take notice of a quarterly devoted to the subjects which interest people like Miss Hawkes and Mr. Krutch—the magazine *Landscape,* now in its fifth volume. *Landscape,* a "Magazine of Human Geography," is published in Santa Fe, New Mexico (P.O. Box 73), and is $2.00 a year (single copies, 75 cents). It covers architectural trends as well as problems of the earth's surface. Something of the approach of *Landscape* is indicated by an editorial comment on the first International Arid Lands Conference, held in New Mexico last year. The Southwest, the editors remark, is squandering its human capital as well as its capital in terms of natural resources. There is the tragedy of erosion and increasing water shortage, but the decay of rural communities and the plight of individuals who are losing their capacity to produce on the land are facts fully as mournful. *Landscape* comments:

> That is why not a few of those who welcomed the Conference were disappointed when no place was found in it for the social sciences. We will continue to benefit by the ideas of the meteorologists, geologists, and soil and water experts; but where were the anthropologists, the sociologists, the historians, who have all studied the peoples of the arid lands, particularly here in the Southwest? Where were the human geographers, the regional and city planners, the architects whose job it has been to make the newly settled arid lands habitable? They were little in evidence. Yet no amount of water and vegetation, miraculously and scientifically produced, can make a desert really blossom unless the human installations are acceptable and society is taught to adjust itself to a new and unfamiliar environment. Through no fault of the eminent men present, the Arid Lands Conference unwittingly suggested that immensely efficient and powerful weapons for subduing the environment were to be placed in the hands of a world totally without spiritual or social perception. We have yet to disprove Koestler's dismal propehcy: "The Promethean myth seems to be coming true with a horrible twist: the giant who reaches out to steal the lightning from the Gods is morally insane."

Yet the voices of sanity are many. Some day, perhaps, they will be heard.