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THE MIND'S OPENING

MOST men of broad educational background—especially those who have some intellectual achievement to their credit—speak with a certain implicit authority when they address themselves to a current question or problem. They speak out of the resources of established knowledge, or from what in their time is regarded as established knowledge.

This is natural enough. People who read, people who are looking for help in forming their opinions, want to find out what may be taken as the best information available on the matters they are questioning. What would they do if there were no leaders in thought to propose "intelligent" ways of looking at things? The thought is almost unbearable, even for those who try to "think for themselves." This is not a matter of blindly accepting authority, but of examining the opinions of men who have thought a great deal on these matters. If you want to know about science, you read what the scientists have said. If you want to know about religion, you read what religious leaders and theologians have said. You inform yourself through the work of these men, and only then, presumably, you make up your mind.

This atmosphere of generally accepted certainty and well-received assumption characterizes all stable historical epochs. It is the foundation of psychological security and of the sense of orientation which men feel as representatives of civilization. When men move from one ground of certainty to another, it is customary to say that a "revolution" is taking place. Thus, we speak of the Copernican Revolution, marking the transition from the Ptolemaic or geocentric astronomy to the heliocentric system, with all the consequences this change in belief entailed. The eighteenth century saw a similar transition, involving the introduction of the world to the new ideas of political authority established by the French and American Revolutions.

With these changes went other transformations, such as the radical revision in ideas about human nature, the development of the modern idea of Progress, and the emergence of the theory of knowledge which is commonly spoken of as "scientific" knowledge.

There is nothing new about this account of the evolution of intellectual attitudes. The great historians of the nineteenth century, such as Buckle and Lecky, explored such changes with both skill and imagination, and later scholars, Andrew D. White and John Herman Randall, for example, have continued the analysis. It is not even new to suggest that we may now be coming to the beginning of the end of the cycle of scientific certainty, and entering upon a new phase of life and inquiry. What *may* be new is the possibility that the coming decades will prove to be a time in which, paradoxically, both skepticism and faith (of a sort) will flourish side by side—a qualified skepticism, of necessity, and a qualified faith—bringing a strange combination of confusion and enlightenment to human affairs.

It is a question, essentially, of where people place the locus of authority, for their thinking, for their lives. This is a complicated question. It is plain, for example, that men do not always understand where they have found the authority they live by. Many persons of undoubted virtue and strength of character have said that they learned the truth from revealed religion, when it is impossible to suppose that they would have been evil or weak had they been nurtured in another faith—a faith which, according to their opinions, was false or heretical. A man *says* he gets his virtue from some external inspiration, when, in fact, he gets it from inside himself, although he is led to project that inspiration to the god or gods conventionally held in reverence in his time. Were this suggested to him, he would reject the idea as involving a conceit or arrogance he does not feel.

But whatever the subtleties involved in this decision, we are able to speak of historical epochs in terms of the general or popular idea of authority which rules each one, and to draw certain conclusions concerning its effect. It is not idle to speak of the effect of the idea of authority. Politicians are practical psychologists of considerable skill, and it is well

known that they almost always try to make it appear that they are on the side of the Highest Authority. For the politician, religion is an instrument of social control. This has never been more apparent than in the past ten years in the United States, when politicians have turned into amateur Billy Grahams, vying with one another in their devotion to "God" and in their insistence that America owes its high achievements to the traditional religion of the land. Publishers have responded to the call by printing articles and books to "prove" that the scientists "believe in God," and even Norman Cousins, the esteemed editor of the *Saturday Review*, has lately issued a volume in which he contends that the Founding Fathers were True Believers, despite their agnostic or Deist exteriors!

Politicians from the Roman Varro to the time of J. Edgar Hoover have recognized the importance of religion to their craft. Varro spoke of the three kinds of theology—the poetic, mythic theology, such as Homer's tales of the Gods and their exploits; the civil theology, involving state observances, which is closely integrated with nationalism; and, finally, the natural theology of the philosophers. Only the latter, Varro believed, had any truth in it. Meanwhile, Scævola, the pontiff, said that the civil theology alone had social utility, and that it was not true!

The obstacle which today confronts any serious attempt to revive "civil theology"—which means, in contemporary terms, religion of external display and ostentatious observances—is the scientific spirit. Not that modern man has imbibed deeply of the scientific spirit—this is reserved for the few, serious practitioners of science. But all men have been affected in their thinking by the conclusions and teachings of modern science. This means that most men tend to assign impersonal causes for the things that happen. The idea of God as a cause is a strained and unnatural idea to the men of our time. Especially is this true of the people of the United States, where the constitutional matrix of the national life is secular, where the countless achievements of technology redound to the prestige of science, and where the pragmatic attitude is a kind of second nature for all, whatever their nominal religious faith.

It is virtually impossible, in short, to obtain a credible synthesis between old-time, "fundamental" religion and the attitudes of mind produced by the scientific revolution. It is not only possible, but happening every day, that thoughtful men may combine elements of scientific thinking with an intuitive sort of religion. This religion, however, is of a distinctly private character, having more in common with mysticism and ancient pantheistic faiths than with the denominational religions of present-day Christianity.

But traditional anthropomorphic religion has one leading idea which is psychologically matched by a similar leading idea resulting from the scientific revolution. This is the idea that the locus of power is *outside* of the individual human being. From Augustine on, Christian theology has been haunted by the notion of the *absolute power* of God. This power often appears as an incommensurable, irrational reality, before which men must stand as prisoners in the dock, in fear and trembling. All their hopes rest with the decisions of this power. They are dependent creatures, suppliants for His mercy and favor, as so many of the prayers repeated by Christians make abundantly clear.

It may appear unwarranted to the scientifically-minded to suggest that the same psychological dependency may be found in scientific thinking, or what is claimed to be scientific thinking. But consider the well-known views of certain scientists, to the effect that human beings are wholly shaped by their heredity and their environment—that they are, in short, *creatures* of the external natural forces which reign supreme over human destiny. The basic difference between the "outside force" wielded by the traditional God of Western religion and the "outside force" of Nature, declared paramount by the scientists, is that you can't hope to influence Nature through prayer. You have to become a scientist in order to get the laws of nature to work for you, or get in touch with a scientist who may perhaps be able to help you. Further, there are limits to what any scientist can do.

However, there has been very little limit to the claims of those who thought they knew enough about the laws of nature to turn the new knowledge of science to their purposes. It is necessary to keep before us the fact that the Communist movement grew out of the zealous conviction that it would be possible to remake human society by the manipulation of the external environment. This program was called "Scientific Socialism" and it demanded undeviating faith in the

external authority and power of the specialists who were in charge of making the ideal arrangements of the Good Society. This requirement of conformity in belief was so similar to the medieval requirement of orthodoxy insisted upon by the Roman Church that dozens of historians have pointed out the parallel.

It will be argued that all such authoritarian methods have little to do with either true religion or true science, and that they represent corruptions of both. But what made the corruption possible? The suggestion, here, is that it became possible through an idea common to both religion and science—the idea that *the paramount power affecting human destiny originates and persists outside of man himself.*

The difficulties confronting any return to old-time, anthropomorphic religion have been spoken of. The thought of modern man has been raised to a higher level by the methods and achievements of science, so that the return is blocked by a sophistication which cannot be cast aside without a serious mutilation of man's nature. It seems reasonable to say that the numerous "conversions" reported by modern evangelists represent the nervous responses of people who feel a great void in their lives, and have accepted the emotional intoxication of revivalist religion for lack of a better solution. People need to have a sense of power existing *somewhere.* The feeling of being "drifters" is intolerable to human beings. And this is an age when the great institutions of our society, with which we are familiar, and on which we have placed our faith, seem to be breaking loose from their foundations and drifting with adverse currents that we do not understand at all.

But if the return to traditional religion is difficult, if not impossible, what about our faith in science? Has this been lost, too, and if so, why can't it be regained?

Science, alas, is an equivocal expression. Before science had come to mean the vast institutional apparatus and body of doctrine it means today, the practice of science indicated a faith in *man.* The founders of the scientific movement were fascinated by the correspondence between their own intelligence and the forces of nature. The thrill of being a scientist was the thrill of learning and knowing and demonstrating. Modern science began as a development of humanist enterprise, as Robert A. Millikan pointed out many years ago.

What is good about science is primarily what the scientific movement has contributed to man's self-respect and feeling of capacity to meet and cope with the conditions of life. One may say that science as technology has transformed the conditions of human life much more rapidly than it has raised the level of man's capacity to cope with the new conditions. It is easier to assert this than to explain why it should be, but the fact can hardly be doubted. Accordingly, as these conditions threaten to go out of control—as the nineteenth-century hope of a scientifically constructed Utopia dissolves into the same sort of dust as that which remains of earlier dreams of salvation—we begin to fear science instead of respecting it. We'll use the gadgets, of course; we've become dependent upon them; but we don't like the thought of these men who say that they know how to take the world apart, but not how to put it together again. Then there are the "hidden persuaders," the men who can be called "practical psychologists," or, in the more pretentious term, "engineers of consent." There is "science" in what they are doing, too. The more you read about how they operate and how they justify it, the more you are reminded of the Grand Inquisitor's arguments in Ivan's story told in *The Brothers Karamazov.*

So the fine, fresh fervor of the scientific spirit is not something we can recapture for our civilization. The bloom is off the peach. Next year, perhaps, some brilliant technician will tell us he has found a way to put a rich, synthetic bloom back on the peach—even a bloom with a fuzz that feels good instead of puckering your mouth, but that will be only for next year. He'll have a new idea the year after that—maybe some way to perfume the smog in the air over Los Angeles, as a means of increasing the tourist trade. Very practical people, these engineers and technologists.

What are we leading up to? To put it simply, the idea that the private individual is going to have to recover the initiative in making his own life into the good life. This is a task which cannot be delegated to any of the institutional varieties of either science or religion. The idea applies to politics, too. If there is anything to be learned from current affairs, it is the fact of the impotence of the Omnipotent State—impotence to do us any real good. In a recent address, Mr. Robert A. Hutchins of the Fund for the Republic pointed out that the mechanisms for the preservation of civil liberties have been outgrown by the complex

structure of our technological society. It is becoming difficult to make them apply. The compulsions to eliminate the independence of the individual operate at a different level from the guarantees to preserve the independence of the individual.

Not everyone, of course, feels the decline of old authorities and the failure of old institutions with the same sense of urgency. Your hear the liberals speaking of matters which were once genuine issues—and still represent values worthy of attention—without seeming to recognize that the forces which control those issues are no longer accessible to the methods the liberal knows how and wants to use. What is the use of talking about social or economic justice when even a "little" war scare can make nearly everyone forget about justice? Why get excited about the problems confronting the labor unions, without getting excited at all about what the men at the work benches are *making!*

This is an epoch, in short, when the people who will shape the future—if we have a future—are people who are trying to discover ways of living without any external authorities—whether religious, scientific, or political. They are trying to put man back together again.

One of the characteristics of this state of mind is the tendency to take man as we find him, as we find him in ourselves, as given in experience. If you go to one of those meetings where people are trying to find a synthesis between science and religion, you have opportunity to listen to speakers who talk entirely different languages. One speaker argues from one body of assumptions about the nature of man, another from an entirely different set. The only people who really communicate with one another are the people who take man as given.

To take man as given means to combine an extraordinary confidence with a deep humility. It means that you don't explain away any human quality in the terms of some kind of superhuman or inhuman causation. Neither a theory of God nor a theory of objective nature is allowed to invade the region of human autonomy. Only the religion and the science which can enter that region without any subversive, imperialistic designs, are welcome. Restrictions of this sort will of course involve considerable reforms in both science and religion; but this is perfectly proper, since man, after all, is the author of both science and religion, and an author is entitled to revise his own work.

This is not a break with the past; it is a partial break with and a partial acceptance of the past. And it is an opening of the mind to the primary realities of our being.

REVIEW
TENDERLY DREADFUL

AN essay by Tennessee Williams appropriately introduces the Bantam reprint of Carson McCullers' novel *Reflections in a Golden Eye*. Like William Faulkner, Mr. Williams writes essays which can hardly fail to disarm the most severe critics of his often depressing dramas, and, in this instance, he writes to explain why the "Sense of Dreadfulness" seems an inevitable accompaniment of the world as the artist sees it.

Carson McCullers does indeed write about mysteriously dreadful characters, but the emphasis is always more on the mystery, and hence her "dreadful" is never simply brutal. Mrs. McCullers is held by many—particularly critics abroad—to be one of the most distinguished of American authors, and those who have read her, whatever they may think of her characters, can hardly fail to appreciate the precision of her art. She never belabors, overdramatizes or detours. She has, however, been accused of preoccupation with psychic abnormalities. It is to this point that Mr. Williams speaks in his introduction, in the form of an imaginary dialogue with a typical critic. As he says:

> In expositions of this sort it is sometimes very convenient to invent an opposite party to an argument. Such an invented adversary might say to me at this point:
>
> "I have read some of these books, like this one here, and I think they're sickening and crazy. I don't know why anybody should want to write about such diseased and perverted and fantastic creatures and try to pass them off as representative members of the human race! That's how I feel about it. But I do have this sense you talk about, as much as you do or anybody else, this sense of fearfulness or dreadfulness or whatever you want to call it. I read the newspapers and I think it's all pretty awful. I think the atom bomb is awful and I think that the confusion of the world is awful. I think that cancer is fearful, and I certainly don't look forward to the idea of dying, which I think is dreadful. I could go on forever, or at least indefinitely, giving you a list of things that I think are dreadful. And isn't that having what you call the Sense of Dreadfulness or something?"
>
> My hesitant answer would be—"Yes, and no. Mostly no."
>
> And then I would explain a little further, with my usual awkwardness at exposition:
>
> "All of these things that you list as dreadful are parts of the visible, sensible phenomena of every man's experience or knowledge, but the true sense of dread is not a reaction to anything sensible or visible or even, strictly, materially, *knowable.* But rather it's a kind of spiritual intuition of something almost too incredible and shocking to talk about, which underlies the whole so-called thing. It is the incommunicable something that we shall have to call *mystery* which is so inspiring of dread among these modern artists that we have been talking about..."
>
> Then I pause, looking into the eyes of my interlocutor which I hope are beginning to betray some desire to believe me, and I say to him, "Am I making any better sense?"
>
> "Maybe. But I can see it's an effort!"

Reflections in a Golden Eye incisively portrays the warped psyche of an army captain—set in contrast to the primitive souls of an army private and the captain's wife. The captain has never grown up. As a youth he had been offered the fussy accompaniments of female affection without receiving any of its genuine ingredients. And, never having become a man, he has never learned the courage of thought. He has an active intellect, but no elements of that mental quality which makes independence in thought or action possible:

> Captain Penderton was something of a savant. During the years when he was a young Lieutenant and a bachelor he had had much opportunity to read, as his fellow officers tended to avoid his room in the bachelors' quarters or else to visit him in pairs or groups. His head was filled with statistics and information of scholarly exactitude. For instance, he could describe in detail the curious digestive apparatus of a lobster or the life history of a Trilobite. He spoke and wrote three languages gracefully. He knew something of astronomy and had read much poetry. But in spite of his knowledge of many separate facts, the Captain never in his life had had an idea in his head. For the formation of an idea

involves the fusion of two or more known facts. And this the Captain had not the courage to do.

Though Mrs. McCullers is not especially concerned with the deficiencies of the military mentality, it is not strange that she should choose an army post as the setting for *Reflections in a Golden Eye.* She finds there a "certain rigid pattern, leading, above all, to dullness and insularity." These, in turn, are compounded with "a surfeit of leisure and safety, for once a man enters the army he is expected only to follow the heels ahead of him." The Captain's reflections, at one point, introduce a subtle dimension, for the man who wants to become a general also wishes to be a private, which means that he wishes to return to a simplicity more commensurate with his emotional age. He, too, seeks purity, though he neither knows what it is or how to reach it:

> A peculiar reverie had taken hold of him. As he always had been keenly ambitious, he had often amused himself by anticipating his promotions far in advance. Thus, when he was still a young West-Pointer the name and the title "Colonel Weldon Penderton" had to him a familiar and pleasing sound. And during the past summer of this year he had imagined himself as a Corps Area Commander of great brilliance and power. Sometimes he had even whispered the words "Major General Penderton" aloud to himself—and it seemed to him he should have been born to the title, so well did the sound of it fit with his name. But now during the past weeks this idle dream had strangely reversed itself. One night—or rather it was one-thirty in the morning—he had sat at his desk in a trauma of fatigue. Suddenly in the silent room three words had come unbidden to his tongue: "Private Weldon Penderton." And these words, with the associations they engendered, aroused in the Captain a perverse feeling of relief and satisfaction. Instead of dreaming of honor and rank, he now experienced a subtle pleasure in imagining himself as an enlisted man. In these phantasies he saw himself as a youth, a twin almost of the soldier whom he hated—with a young, easy body that even the cheap uniform of a common soldier could not make ungraceful, with thick glossy hair and round eyes unshadowed by study and strain.

Since the South is perfectly situated for more than a fair share of the appalling, and since "tenderness" is the best antidote, we here find a reason for notice of a first novel by Alfred Maund, *The Big Boxcar.* Acclaimed by *The New Yorker* as well as the New York *Times* and *The Saturday Review,* this story of six men and a woman fleeing northward through Alabama in a boxcar is a most unusual tale. To fight the heat and the fear, the Negroes start a round of story-telling, and we are introduced to rare integrity and gentleness as well as to what a critic called shocking and physical degradation. One theme of interest is the Negroes' disinclination to have close contact with any white person—not, in these instances, because of fear, but because of a more fundamental psychic barrier.

But *The Big Boxcar* has its white heroes, also—two scientists who are endeavoring, through laboratory experiments, to prove that some of the "natural enemies" of the animal world can be taught to cooperate. Professor Tatsumi, the elder, is a man whose wife died in a Japanese relocation center, and whose son was killed fighting for the United States in World War II. Both he and Dr. Hastie see no distinction in color and condition, for both have suffered deeply. The fact that they lose their battle against housing segregation only makes their sacrifice more impressive, for one realizes that they are really fighting to retain their own humanity. In this sort of warfare, we learn from Mr. Maund, there can be no defeat. Of *The Big Boxcar,* Robert Paul Smith has said: "It is rare enough for a book to be about something that matters; it is rare enough for a book to be *written,* to have a tone of voice, let alone the author's own specific, identifiable tone of voice. These two things together in one book are enough, but in addition—and perhaps these are the two biggest words I know—the book is funny and good, I mean good like 'this man is a good man'."

COMMENTARY
IMPENDING CHANGE

THREADS of thinking suggestive of an opening of the mind, of an impending change, are gathered by Samuel M. Bradley, a teacher at Lebanon Valley College in Pennsylvania, in an article, "From Private Man to Public," in *Approach*, Spring, 1958. Mr. Bradley is concerned with the failure of modern poets to communicate; however:

> . . . society itself must learn that "anarchic revolt" is for its growth and strength; society still sounds alarms against those who oppose the old aims, old values. There is no other way to change, to go strong in the morrow. Youth of no revolt is no youth. There must be private vision before it can become public vision; that which is new and clumsy and reckless and experimental and defiant will appear abnormal and wild before it is tamed and usual. Institutions must be so governed that they do not crush those who alone are strong enough to fulfill the purposes for which the institutions came into existence.
>
> We have difficulty in living into an open new era. "The artist's loneliness, the scholar's despairing, because no one will any longer trouble to learn what he can teach, the narrowness of the scientist—these are not unnatural insignia in this great time of change," says J. Robert Oppenheimer. Whitehead believed that "mankind is now in one of its rare moods of shifting its outlook."

Mr. Bradley quotes Carl Jung on the imminence of change as seen from another stance:

> Great art till now has always derived its fruitfulness from the myth, from the unconscious process of symbolization which continues through the ages and, as the primordial manifestation of the human spirit, will continue to be the root of all creation in the future. The development of modern art with its seemingly nihilistic trend toward disintegration must be understood as the symptom and symbol of a mood of world destruction and world renewal that has set its mark on our age. This mood makes itself felt everywhere, politically, socially, and philosophically. We are living in what the Greeks called the "right time" for a metamorphosis of the gods—that is, of the fundamental principles and symbols. This peculiarity of our time, which is certainly not of our conscious choosing, is the expression of the unconscious man within us who is changing.

We are happy to think that, as Dr. Jung says, the "unconscious man" is changing, but it is even pleasanter to think that the conscious man—a man like Lewis Mumford, for example, and some others—is playing a part in the change! But this is not to minimize the idea that what we might term the "intuitive roots" of man's being are becoming intolerably fed up with the kind of a world we have made for ourselves, and that this deep disgust helps us to get up the courage to *let go.*

This getting ready to "let go" comes out in dozens of ways. It comes out in literature and the arts. It comes out in psychologists and philosophers. It comes out in angry poets and in anarchists and pacifists. It is, perhaps, the precociously mature element in the "beat generation." It comes out in eminent scientists, and in teachers like Mr. Bradley who feel the stirring of a new life and are reaching for its meaning.

CHILDREN
. . . and Ourselves
ESTHETICS AND THE TEACHER

OUT of the plethora of summer teacher conferences and "work shops" comes some interesting material issued by the Bureau of Educational Research at Ohio State University—a report prepared by Ross Mooney and Robert Bargar. The title of these roundtable discussions is "Esthetic Experiences in the Education of Teachers." The remarks on this subject by Donald Wood, a fine arts teacher at Ohio State, recall ideas which appeared in the recently reprinted lecture by A. H. Maslow (in MANAS for April 23 and 30).

At one point in the seminar discussions, Mr. Mooney asked Mr. Wood to present some notes on the psychology, or one might say, the philosophy, of esthetics. Following is a portion of the art teacher's report:

The great teacher is one whose penetration goes beyond the forms and the knowledge of the forms, into an apprehension of the forming. As Rodin said, "I see all of the truth, and not only that of the outside." In this view the teacher attains the true wisdom.

He can teach the forming because there is no other truth of life than this.

He addresses himself to his own highest understanding of the forming and by example, with story, and parable, with precept he brings his understanding into the view of the student. At the same time that forming in the student is mingling with the forming in the teacher. The teacher brings his understanding of the forming to bear on the problem facing the student. The teacher in the end is an example of one who is "letting" the forming of life go on within himself. In this process meaning is perpetually presenting itself and dispelling claims that life is meaningless—which is what a problem is. We are only showing students the power and presence of intelligence and how the realization of this intelligence means the annihilation of ignorance or discord which is only the claim of nothingness that life is not meaningful.

A musical composition, a sculpture, a painting, a word, a poem, a building, a book, a concept; all these things are forms—meaningful closures.

They are closures of meaning differentiated out of all other stuff.

Each question realized is the dawn of another meaningful closure.

Each meaningful closure produced is an affirmation of the meaningfulness of life.

The meaning of the meaningful closure is in the directed focused, forming—the effect of which is the form.

The meaning is in the forming not the form.

The form is like a shell—it has limits—the walls are there like a hollow concrete cube.

The formed form becomes a cell which when lived within becomes a prison.

The things which seem to be created by men are created by life

The created thing becomes a cell if we attempt to live within it.

The created thing is in life. If we attempt to live within the created thing we try to turn life outside in and put life into the thing which life contains. The larger cannot be put into the smaller.

If we teach the forms, we try to put our living into cells. The life that is forming will not be confined to the cell.

What we try to do when we teach the form is to go contrary to life. It is not life that goes contrary to itself. It is ignorance which seems to go contrary to life.

But ignorance is nothingness and nothingness cannot go against somethingness. Therefore all activities related to the supposed meaningfulness of the form are illusions. Only that activity which respects the forming is real—because that is what life is.

Man imposes upon himself
Forms which contradict his being.
The living growing thing
Cannot be forced into rigid material shells.
True the living thing
Forms itself to fit that mold
But it either fills it to its limits
And dies of constriction
Or bursts its Confining cell and

Grows free.
We fail to see
How the use of the cell Helped life.
The crab Grows a shell
It is invented by him
But he does not forever live in it
He casts it off for a new one.
Life invents things which if lived within
Become constricting shells which contradict life,
But life forever forms the shell—
The shell does not form life.
Let us not take the shells formed by life And attempt to live in them.
As life formed them in the first place
It continues the forming infinitely.

We are all in favor of this sort of free association pursued in order to evaluate the teaching function. As with Paul Wienpahl's "Unorthodox Lecture" (MANAS, June 13, 1956), one does not need to know "exactly" what is meant by every phrase to catch the underlying meaning. And, as Wood points out, this is just as true with children and college students as it is with philosophically sophisticated teachers.

The tone of this gathering is indicated by the statement that publication of its conversations and notes was intended to suggest a "frame of mind." Mooney and Bargar continue, remarking that "the notes, special papers, and recorded conversations are but quick brush strokes on a very large canvas. Those who find the strokes suggestive will find ample room on the canvas to add their own projections. Though a report of sorts, this compilation is therefore more of an invitation than a conclusion, and especially is it an invitation to personal investment in the search which is common to us all." After the first meeting of the roundtable, an attempt was made to summarize the basic assumptions which the participants felt they had in common. Following are some of the ideas shared by the teachers involved:

> The capacity to experience life as esthetic forming is an innate aspect of human nature that awaits to be developed in each person.
>
> Because the arts supply us with the most familiar contexts for esthetic experiences, we are likely to identify esthetic experiences with the arts; however, we hold that esthetic experiences are at the heart of all good science, good teaching, good performance in any field whatever. The direction of progress for all man's pursuits is the same—an increasing capacity to enrich man's esthetic realization of life.
>
> Openness to esthetic forming in one medium can serve as an avenue to the opening of much more of life's experience to esthetic forming.
>
> The most valid philosophy of teacher education will itself include the esthetic integration of all disciplines of human awareness into an understanding of man and his processes.
>
> Children, too young to yet be aware of esthetic experiences as such, are the most open to them.
>
> Adults have to consciously cultivate esthetic experiencing in order to realize life as vividly as they did when a child.
>
> The development of a child into a fully matured human being requires that he become aware of himself as a participant in the esthetic realization of his life.
>
> When a child is in the midst of an esthetic experience, it is fatal to the experience for a teacher to call his attention to this fact.

The atmosphere which arises from thinking of this sort certainly invites consideration of each child as presenting inviolable mystery—not just a small, precious being whom we shouldn't try to "adjust" too completely—but a small being who *cannot* be "adjusted." The implication is that human beings come closest to one another in understanding when they accept the fact that each one is, truly, a world unto himself.

FRONTIERS

A Work of the Imagination

WHAT seems left out of account in a large part of the argument about nuclear testing and various other preparations for war is the fact that all human achievements of any value begin as works of the imagination. This is the character and the meaning of civilization. A man looks at a barren plain, circled by mountains, and fifty years later a great city blooms because he imagined it. What was there, besides the mind of Will Shakespeare, to suggest that *Hamlet* or *Macbeth* might come into being? A quill, a bottle of ink, and some blank sheets of paper. Imagination fills the void and reverses the obvious.

Science, like the arts, is essentially a work of the imagination. The hypothesis is made by the imagination. It is a study of what might be. The maker of great hypotheses is always a man who can sustain in his mind elaborate imaginings. The rest is a practical attempt to relate what might be to what is. This we call demonstration, or proof.

It should be plain that the discovery of a way to peace will require extraordinary imagination. The barrier to progress in scientific inquiry is made of little more than the ordinary resistance of human beings to something new or original. The man who originates a revolutionary scientific hypothesis has to cope with professional lethargy and the comfortable self-satisfaction of the status quo. Sometimes there is a social obstacle to what he proposes, as when, for example, his proposition offends against the religion of his time, or when it threatens to disturb some vested interest. But on the whole, a scientific hypothesis which deals with some important phase of the human understanding of nature is likely to get attention from impartial judges and to be made the subject of investigation or experiment.

Hypotheses concerning peace, however, in addition to facing the common obstacles to something new, are opposed by *fear*. Fear freezes into brittle rigidity the sheltering familiarity of habit and custom. A hypothesis which can overcome not only the conventional barriers to innovation, but fear as well, must manifestly have the support of something stronger than intellectual curiosity or even a scientific determination to know the truth. It will need the support of an emotion that is stronger than fear, yet this emotion must be of a sort that will not blank out the rational appeal of a work of the imagination. It cannot be an emotion *like* fear, which makes men irrational. Instead, it will have to heighten the reality felt by men in works of the imagination and increase their capacity for rational understanding. How to define and get this kind of emotion into our lives is clearly as great a need of our time as the need for imagination in dealing with the problems of war and peace. It is almost certainly some kind of religious emotion, and our word "love" probably comes close to suggesting its nature, but since religion and love are matters on which it is very difficult to get agreement, we shall have to leave this question undeveloped.

Meanwhile, there is the problem of applying the imagination to the threat of war. Some of the most distinguished minds of our time have been working on this project. The endeavor is to erect a plane of human discourse and sensibility on which the reforms and sacrifices necessary to prevent war will be acceptable and welcome. To have substance and reality, that plane must be held in elevation before the mind's eye on columns of thought. The creation of those columns is the work of the imagination.

It is not too much to say that a man who can build such a column of thought qualifies as a benefactor of the human race. We don't know if very many others will greet Lewis Mumford's pamphlet, *The Human Way Out* (Pendle Hill Pamphlet No. 97, Wallingford, Pennsylvania, 35 cents), in these terms of extreme appreciation, but we suspect that most MANAS readers will find it to be of this quality. Mumford is a man who has long been regarded as a leader in the study of modern culture. His books have been used as texts in American seats of learning for fully a generation. Now he speaks with greater pertinence and moral insight than he has ever spoken before (or perhaps the urgency of what he has to say makes this seem the case). His voice should be carried as far as the energies of his sympathetic audience can spread it.

The persuasive power of *The Human Way Out* lies in the extraordinary skill with which Mr. Mumford relates what we know with what we don't know, and the moral insight we have with the moral insight we don't have using facts and situations and values with which all are familiar. Early in the pamphlet, he points out:

> Our American pursuit of national security, no less than our peculiar faith in our innate moral superiority, has been built on a series of delusions. Our complacent belief in our solitary pre-eminence in scientific knowledge and technical skill reveals itself now for what intelligent observers always knew it to be—a childish vanity. Our monopoly of nuclear power has been broken before the eyes of the world. Our supposed scientific secrets, which we guarded with such tremulous vigilance, at the sacrifice of our own political and intellectual liberties, have plainly been open secrets to our rivals, who freely draw on the same common reservoir, supplied by the same historic sources as ours—offering many outlets it was not in our power to control. Our political realism has now proved a gaping foolishness. Our government's goading boasts of unlimited powers of massive retaliation have only hastened Soviet Russia's development of similar powers: our solid wall of military bases is now a sieve. Instead of producing a situation of strength and security, our policy has produced a situation of impotence and total insecurity. The military measures we took have proved infinitely more dangerous than the dangers they sought to forefend. Only those whose cold-war minds are still in a deep-freeze, can imagine that these dangers will not be immensely aggravated by concentrating our resources on mightier long range weapons to make more swift and certain the present plans and counter-plans for ending political conflicts by mass extermination.

America's culture hero, Mumford suggests, is now the mad Captain Ahab in Herman Melville's *Moby Dick.* The White Whale, for Americans, is the menace of Communist power:

> In his unrelieved hatred of the White Whale, in his desire to come to grips with him and destroy him, Ahab forgets every other aspect of life—his wife, his child, his crew, the claims of love or even the economic reason for whaling itself. Dominated by his inscrutable enemy, Ahab drives his ship and all but one on it to destruction. But before he comes to this insane end, begotten of his monomaniac delusion, Ahab has one singular moment of illumination, when he exclaims: "All my means are sane: my motive and object are mad."
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> Our leaders have not yet had, it would seem, even this brief gleam of self-awareness. But does anyone think that a full scale outbreak of nuclear war, even if it were wholly successful in exterminating the enemy and enabling a remnant of our own countrymen to survive, would achieve any of the objects that prompted us to start it? Freedom, democracy, security, health, wealth, the very capacity to become human would all vanish in that holocaust. Hating ourselves, hated by the rest of the human race, we would breathe radioactive air, drink radioactive water, eat radioactive food, even though not a single enemy bomb had dropped on our country. In due time the lethal poisons that killed our victims would invade our own miserable bodies. "The gift is to the giver, and comes back most to him," as Walt Whitman said, and these vile gifts which we would like to reserve for our enemy, will surely come back to us, if ever we commit this final infamy.
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> Have we now lost every criterion for sane, normal, humane behavior, so that no one dare say aloud the one thing that needs to be said: the plans that even remotely admit of such an outcome are without qualification both diabolical and mad? The fact that there are now three governments equally capable of utilizing these weapons, triples the range of this madness; it does not alleviate our own pathological condition.

Mr. Mumford marshals all the resources of his own particularized awareness of our complex technological culture to give intimate point to his appeal. He shows how men, using machines with such great success, have begun to absorb the qualities of machines—their indifference, that is, to psychic reality. They cannot register "mercy, pity, tenderness, love, or imaginative anticipation." Becoming used to the qualities of machines, and relying on their dehumanized regularity, men reflect the amorality which is natural to machines but hideous in humans. The people who take their models of excellence from machines, "thinking exclusively in terms of physical results, in utter disregard of the human elements, have imposed a pathological dream of total extermination upon their own fellow citizens, and they have made the

acceptance of their dream the criterion of patriotism and sanity."

The need of present man is a simple one—to become human again. We have to liberate ourselves from those terrible abstractions which have made us able to live without horror or a sense of guilt while pursuing projects of total destruction for whole races of mankind. The measure of our madness is found in the fact that a "single lonely commander" of one of the outlying bases for the defense of the American continent has both the power and the authority to trigger "a full scale outbreak of nuclear genocide without a single word from Washington other than his standing orders." Mr. Mumford remarks that John Foster Dulles has made public this supreme readiness for ultimate destruction, in a burst of "blundering candor."

Since Mr. Mumford wrote this, we have had a frightening illustration of what might happen, because of these standing orders. Dr. Schweitzer, in his April addresses, tells of the report by General Curtis LeMay (SAC commander) that a radar station of the American Air Force and American Coastal Command recently indicated that an invasion of unidentified bombers was on the way. Dr. Schweitzer continues:

> Upon this warning, the general who was in command of the strategic bomber force ordered that reprisal bombing should be made. However, realizing that he was taking a great responsibility, he hesitated. Shortly afterwards, it was pointed out that the radar station had committed a technical error. What could have happened if a less balanced general had been in his place!

This passage by Dr. Schweitzer increases the force of the following by Mr. Mumford:

> Does our government believe that it lives in a perfect world, free from error and accident? Has the Air Force never heard of unidentified flying objects, reported in the hundreds by competent observers, even visible on the radar screen? The very fact that they themselves classify these flying objects as hallucinations or misinterpretations of natural phenomena only drives home the point: if these self-induced projections can produce flying saucers, they can also produce equally imaginary Russian planes, rockets, and nuclear explosions, under pressure of fear and suspicion. In the present situation, one need not even suppose psychotic malice or a mental collapse on the part of the commanding officer, though both are surely possible. All that would be needed to start full scale extermination and destruction would, on Mr. Dulles' confession, be a normal human error. . . . Yet the strategists who have fabricated this death-trap look upon themselves as hard-headed realists, and talk proudly in public as if these bases and their nuclear warheads and their jet bombers constituted a monument of security. How far can human self-deception go?

Mr. Mumford's voice is the voice of an outraged man. It is not, however, a voice of rage or hate. There is the high intellectual passion of clear-seeing, but no anger at an "enemy" who must be eliminated. It is a call to sanity and humanity. It is above all the voice of a man who is unafraid. This, surely, is one of the qualities which must belong to the emotion that can support a way to peace. And this, again, is a quality of which machines know nothing. A world secured by the might of machines—machines operated by men who cannot bear the thought of living without the mindless protection of their machine-gods—is a world without courage, whose inhabitants are continually enwrapped in fear. How can we stand off from the world we have made, in order to recognize this dreadful reality?

Well, Mr. Mumford helps us to stand off for a while. His final prescription is this:

> In short, the only way to escape the dangers we are now facing is to completely reverse all that our government has been doing. To go forward, we must retreat. Our only effective defense against the misuse of atomic power is a moral one: our own capacity to be fully human, and to appeal, through our own manifest humanity, to the feeling and understanding of other men.

The title of this pamphlet is *The Human Way Out.* There are other ways out, to be sure, besides the human way. The only trouble is, if we take them, we may cease being human altogether.