

LOST ALLEGIANCES

UNTIL a few centuries ago, the cultural unity of populations spread over vast areas of the earth was established by seldom questioned common beliefs. Today, while some beliefs remain, their strength seems reduced to the reflexes of habit, and the conceptions of meaning which have replaced religious teachings have no access to deep conviction. Ideas of transcendent purpose and integrating role have given way to endless catalogs of facts, producing a psychological environment in which talk of "engagement with destiny" is made to seem anachronistic and ingenuous. This is especially the case in the presence of people schooled in sophisticated relativism and filled with the critical self-consciousness generated by the methods of scientific inquiry.

Perhaps another sort of unity could eventually be born in people through common feelings of alienation and deprivation, since these are preoccupations which seem to be spreading throughout the world. They occur wherever the vulgarized, "progress through science" version of Enlightenment philosophy has had extensive application. Evidence of what Viktor Frankl terms the "existential vacuum" is found in both democratic and communistic societies. It is especially noticeable among the young. As Frankl observes:

The students' sense of emptiness and meaninglessness is reinforced by the way in which scientific findings are presented to them, by the reductionist way, that is. The students are exposed to an indoctrination along the lines of a mechanistic theory of man plus a relativistic philosophy of life.

There seems a sense in which these "progressive" civilizations have been coasting for generations on positive energies inherited from outmoded systems of belief. An oblique way of developing this possibility is provided by the

opening paragraph of a paper by George Macinto in *The Subversive Science* (Houghton Mifflin, 1969). He says:

Some years ago I read a passage from one of Bertrand Russell's writings which had a lasting effect. When asked to summarize the major differences to be noted between the 19th and 20th century life Russell said that there was vastly less humbug in the twentieth century world of ideas than was true of the earlier period, and for this he was grateful; but that, on the other hand, almost every place he had visited after a long absence showed a marked deterioration in beauty and for this he was profoundly sorry.

Russell is just the man to testify. In 1902 he wrote "The Free Man's Worship," probably the most quoted of all the tough-minded expressions of the scientific outlook (to be found in his Anchor paperback, *Mysticism and Logic*), so that we know pretty much what he means when he says "humbug." It includes whatever lies outside the assumptions of Russell's bleak credo, which can be summarized in these words of his 1902 essay:

That Man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and beliefs, are but the outcome of accidental collocations of atoms; that no fire, no heroism, no intensity of thought and feeling, can preserve an individual beyond the grave; that all the labors of the ages, all the devotion all the inspiration, all the noonday brightness of human genius, are destined to extinction in the vast death of the solar system, and that the whole temple of Man's achievement must inevitably be buried beneath the debris of a universe in ruins—all these things, if not quite beyond dispute, are yet so nearly certain, that no philosophy which rejects them can hope to stand.

Well, it does not "refute" Mr. Russell to point out that little or nothing of "the whole temple of Man's achievement" has been raised on this sort of foundation—which he admits to be "unyielding despair"—but it is fair and necessary to say, also,

that his negations may be even more unprovable than the idealist visions which he rejects. And it is of more than incidental interest that Frederick Lange, in a history of Materialism to which Russell contributed an excellent introduction, remarks that the great discoverers of natural knowledge among the ancients were, almost to a man, idealists and even enthusiasts of a spiritual reading of the meaning of life and nature. Meanwhile, what about the effect on other people of the spread of such doctrines of absolute negation, especially when they take on the seeming authority of "scientific truth"?

Actually, Russell himself wrote lucidly in analysis of exactly this sort of influence more than thirty years ago. Discussing (in the *Nation* for Jan. 9, 1937) the early days of science, he said:

The man of science in pursuing truth, even if he came into conflict with current superstition, was still setting forth the wonders of Creation and bringing men's imperfect beliefs more nearly into harmony with God's perfect knowledge. Every serious worker, whether artist, philosopher or astronomer, believed that in following his own convictions he was serving God's purposes. When with the progress of enlightenment this belief began to grow dim, there still remained the True, the Good, the Beautiful. Non-human standards were still laid up in heaven, even if heaven had no topographical existence.

Throughout the nineteenth century, the True, the Good and the Beautiful preserved their precarious existence in the minds of earnest atheists. But their very earnestness was their undoing, since it made it impossible for them to stop at a halfway house. Pragmatists explained that Truth is what it pays to believe. Historians of morals reduced the Good to a matter of tribal custom. Beauty was abolished by artists in a revolt against the sugary insipidities of a philistine epoch and in a mood of fury in which satisfaction is to be derived only from what hurts. And so the world was swept clear not only of God as a person but of God's essence as an ideal to which man owed an ideal allegiance; while the individual, as a result of a crude and uncritical interpretation of sound doctrines, was left without any defense against social pressures.

"Social pressures" is a vague term, but we know the pressures against which we are virtually

defenseless. They include environmental pollution, cultural monotony, and social degradation and impotence. Their protean expressions are found in the city streets, in many of the schools and colleges, in brittle and sluggish institutions. Their ramifying influence appears in exaggerated political hatreds, obsessive fears, in the catalogs of psychological ills of a sensate culture, in the terrible loneliness of uncared-for human beings in crowds, and in the starvation for understanding and affection of so many children and young people. We suffer not so much the loss of a "god" to believe in, as the almost total failure of feelings of kinship with other people and other forms of life.

What can be done? Well, first of all, we have the relentless demands of our critical self-consciousness to cope with. You can't very well tell a child to "love" the life in a tree, because you know that's just primitive Animism, and you don't want to plant superstition. On the other hand, doctors who study subtle human feelings in relation to the natural world tell us that people who fail to develop a sense of community with non-human forms of life slowly get sick without knowing it. And ecologists who investigate the effects of a dirty, monotonous environment on city dwellers arrive at somewhat similar conclusions. Actually, we don't have much language-structure for talking about such things.

Yet we may develop a language for speaking of them. Already thoughtful people are taking responsibility for this kind of human growth. It is no coincidence that, in the volume on ecology quoted earlier, *The Subversive Science*, five of the papers included by the editors first appeared in a remarkable quarterly magazine, *Landscape*, for years issued in Santa Fe but now published in Berkeley (P.O. Box 7177, Berkeley, Calif. 94707). This publication has been a pioneer in giving voice to new ways of thinking about both the natural and the man-made environment, joining art and science in a quiet philosophical mood. One of these five papers, "Remembered

Landscapes," by Grady Clay, relates the following:

In the summer of 1955, a class of architects and planners at M.I.T. wrote short papers on their memories of their childhood environments. These papers tempted two men, Alvin K. Lukashok and Kevin Lynch, to undertake a series of detailed interviews with 40 persons, none of them professionally involved in urbanism or design. These ranged from 18 to 32 years in age, had come mostly from the Boston area, but included a few persons from New York, and as far distant as Vienna. The Lukashok-Lynch study grew out of one assumption: "that present adult memories reflect actual childhood preoccupations." Or—that memories of childhood are important emotional underpinnings of modern man's life, and are to be laughed away or disregarded at our peril and great loss.

The research showed spontaneous longing for open space, grass, hills, trees. The interviews made it plain that "children seem to prefer to play anywhere but the playground." Mr. Clay continues:

"So many people remember with pleasure, the overgrown lot, thick brush and woods," say the authors. "It is sufficient to give us pause in our treatment of 'waste' or 'untidy' areas or in the design of play spaces."

"On the whole, people remember keenly and with pleasure the hills that were in the vicinity. . . . Because so often a hill is not the best site for a building, it is the last part of an area developed, allowing it to remain wild and therefore attractive to children."

His paper ends on a more ominous note:

To my mind, the most disturbing thing coming out of this study was the authors' conclusion that most of the people interviewed "rarely conceive of the city as something that might give pleasure in itself. They hardly expected to have an enjoyable city environment, as if a mild civic nausea were a normal burden of man's existence."

If this conclusion may be justified in America, what must one expect from the great booming cities of the world—Johannesburg, Singapore, Agadir in Morocco, Sao Paulo, Hong Kong—where a flood of villagers and farmers is inundating whole square miles of cities, wiping out the green corners, the open lots, with overcrowding of appalling intensity?

One is forced to conclude from the M.I.T. studies, if not from a knowledge of the world as it is without benefit of such research, that somehow the delights of waste, of old lots, or tangled woodlands left in the midst of housing developments—somehow these must be protected and preserved. For the city—not merely the Exurbs, the Suburbs, the Rolling Knolls and other high income area neighborhoods—must keep these delights if it is to keep the affections of its people.

Under the impact of housing shortages, of get-rich-quick pressures on city officials, the urban green spaces are disappearing at an appalling rate. And with the disappearance of these "wastes" we lose trees, hills, water, fields of tall grass the hidden and hiding places of the world, and in the end, an important part of life itself.

An opening passage in another *Landscape* contribution reprinted in *The Subversive Science*, "God's Acre," by Erich Isaac, seems a more specific explanation of what Mr. Russell means by "humbug":

Many current views hold that religious knowledge is not what it purports to be but is a disguised way of stating something else, or is a device, often described as rather underhanded, for effecting certain changes in society or in individuals. The root of these views is in the conviction that religion corresponds to no objective reality but is a psychological aberration, a disease of mind or language, or a means of political control, economic exploitation, etc.

These views, Mr. Isaacs shows, are coarse over-simplifications. Then, concerning the idea of "holy places," he says:

The seemingly sophisticated notion that taboos are inventions of a "power elite" to protect their property, or that they arose solely, or even primarily, for utilitarian reasons is not in accord with the facts. This attitude is expressive of modern myths based on our economic life in which acquisition is more important than possession, and in which "property" can always be translated into "commodity." Indeed, the economic myth is an inadequate explanation even in the context of "western" economies. It is certainly wrong for societies where property "is a 'mystical' relation between owner and owned" and where "the possessor is not the *beatus possidens*, but the depository of a power superior to himself."

The idea of "holy places" might regain importance for us from considering the strong likelihood that nothing less than an awesomely absolute *taboo* will be strong enough to prevent real estate developers and builders from using up every last inch of natural landscape in some areas of the United States. Is there anything unreasonable about taking such conclusions as those in Grady Clay's paper as justification for declaring certain areas *sacred* to present and future generations of children?

Years ago, a distinguished American conservationist, W. C. Lowdermilk, after visiting eroded and wasted regions in China, observed that only in the environs of Buddhist monasteries had there been some preservation of the top soil. Why? The Buddhists planted trees. A modern religion with an ecological background might prescribe a wide variety of such practices. We may in time get such a religion, based partly upon discovery of the necessities of healthful and harmonious functioning of men in community on earth.

Perhaps, in some instances, the "humbug" of which Russell complained wasn't humbug at all, but simply inherited social hygiene grounded in forgotten ecological common sense. One thinks, at the same time, of the misconceptions so widely and authoritatively spread by Sir James Frazer's famous volume, *The Golden Bough*, in which, as later students found, he too often relied on the reports of ignorant Christian missionaries for interpretation of "tribal customs" and beliefs. In one place in *Sex and Culture*, for example, J. D. Unwin wrote:

No tree or rock is revered *qua* tree or *qua* rock. It is regarded with veneration because the power in the universe is manifest there, the power being the same whether it be in a tree or a rock. This power is often conceived not as an entity but as a quality, the idea that it is a personified cause being due to what Mr. Swanton calls our "European lineage."

There is much more of such analysis in Unwin's book, useful for the humbling of Western

man and for restoring respect for "primitive" societies.

But what, "in the beginning," was the origin of "sacred places" in history? Apparently, the feeling of Christians about Jerusalem is for characteristic reasons. Mr. Isaac says:

Within the data that can be studied by comparative religion . . . the earliest sanctification of a place arises from the religious experience of charismatic patriarchs. The "founded" religious places are sanctified by a religious leadership, hereditary or not, which bases its authority upon the founder. It should be evident that custom often replaces the original sense of awe; pure formalism is much more widespread than any experience of the holy, and such formalism may serve non-religious practical and social ends without arousing any fervor. As Claude Lévi-Strauss put it: "Emotion is indeed aroused, but only when the custom, in itself indifferent, is violated."

This seems further clarification of Russell's "humbug." In his time, authentic awe had already degenerated into formalism, and custom had become "indifferent." So, while the judgments of skeptical critics may be accurate enough, there is nothing *restorative* in them.

Well, what can a self-conscious, critical society do to save itself, when what it needs, but doesn't have, is a few believable "charismatic patriarchs" of its own? While wondering about this question, we might try to gain more awareness of the functional realities and living relationships and interdependencies of the life of man on the planet. Our heightened critical self-consciousness might serve to guard against adopting any belief that could lapse into mere "observance."

It is also legitimate to wonder whether, in our present intellectual circumstances, great faith could be born into the world. John Collier, who may have come closer than any other white man to understanding the beliefs of the Pueblo Indians of the American Southwest, thought that it could. In *On the Gleaming Way* (Sage Books, 1962), a memoir on Indian thought and vision, he describes

the initiation rites by which a young man from another pueblo was taken into the pueblo to which the girl he married belonged. One of the Indians assisting in the initiation related to Collier something of the places sacred to the tribe:

Much that he told this young man, the teacher was not free to tell me. But part of the tutelage was the unveiling of the hidden names and spiritual meanings of hundreds of physical places, wide over the land. Mesas, plinths, streams and springs; forests that existed no more, trails unused for hundreds of years. Some of the places had vanished utterly with the passage of linear time; the highest mountain peak, in one of the sacred areas along the Rocky Mountain range, was the highest no longer, and the tree line had moved upward two hundred vertical feet since these tribal memories, as we would call them, this tribal present, as the Indians knew it, had been born. The memories, the present, spanned geological time.

"But, Geronimo," I remarked, "your tribe does not own these places and boundaries any more." He replied: "We own them in our soul."

Collier came to believe that conviction of this order could not die out—that it would break once again into "linear time," and prove its reality not only as "solitary, mystical experience," but outlast the white man's suppressions and finally demonstrate the outer as well as inner health of these enduring allegiances.

REVIEW

HARBINGER OF RENAISSANCE

IN their Preface to *Readings in Humanistic Psychology* (Free Press, 1969, paperbound, \$3.95), the editors, Anthony J. Sutich and Miles A. Vich, speak of the "protracted struggle for acceptance of the humanistic orientation as a vital part of the field of general psychology." Reading along in this book, one begins to realize that this "acceptance" really depends upon the radical transformation of "the field of general psychology" itself. It might be added that when the full implications of humanistic psychology become operative in modern life, much more than an academic discipline will have undergone transformation.

What is the essential impact of humanistic psychology? It is, as the words imply, the study of man *as man*—as he finds himself in experience, with ever lessening reference to those reductive doctrines of what man is which have resulted from study of things which affect him or which are part of his equipment for physical existence and survival. Humanistic psychology finds the objectifying and statistically generalizing methods of the other branches of science inappropriate for the study of man. For man has subjective as well as objective reality, and the subjective reality is prior. The reasons for the neglect of man's subjective being make an interesting area of investigation, involving the religious history of the West, but what is pertinent, here, is the fact that the celebrated "objectivity" of empirical research is now profoundly suspect, being no longer regarded as the monopolistic Gibraltar of scientific epistemology. This becomes plain from a paragraph in the editors' Introduction:

It is a curious commentary on the state of psychology in the middle 'fifties that voices outside the field were urging psychologists to re-examine their orientation. The most notable example of this was the address of J. Robert Oppenheimer at the annual convention of the American Psychological Association, held in San Francisco in 1955. In his speech Oppenheimer stated that he believed that "the

worst of all possible misunderstandings would be that psychology be influenced to model itself after a physics which is not there any more, which has been quite outdated." He recommended that psychologists look to their own proper areas of inquiry for relevant concepts and methodologies.

One thing that ought to be said is that the rediscovery of the human subject is not an activity limited to humanistic psychologists. A vast, all-encompassing humanistic renaissance is now gathering strength, with evidences of disturbance and impending change cropping up in every walk of life. Naturally enough, however, its spirit and vision seem especially explicit in the work of certain of the humanistic psychologists, by reason of the self-consciousness and deliberation of their undertakings.

Carl R. Rogers, one of the best known of the pioneers, combines rare tenderness and human sympathy with tough-minded clarity in ordering thinking about man as subject. His writings contribute to the reader's sense of the inner structure' of conscious intelligence in action. Man is no longer a sort of hypersensitive cipher who simply "reacts." It becomes evident that his life of thought and feeling has its own autonomous dynamics, and that by persistent introspection an individual can find out a great deal about how his egoity works and may develop. Dr. Rogers' paper in this volume, "Toward a Science of the Person," ought to be read as a companion to Michael Polanyi's valuable book, *The Tacit Dimension*, which is also concerned with subtleties of cognition. After a memorable description of the way in which searching human intelligence feels its way toward conclusions that can be articulated, Dr. Rogers says:

I would voice the opinion that even the most rigorous science has its origin in this mode of knowing. Without the creative inner hypothesis, all the machinery of outward verification would be sterile. As Einstein said in regard to his search for the principle of relativity: "During all those years there was a feeling of direction, of going straight toward something concrete. It is of course very hard to express that feeling in words; but it was decidedly

the case, and clearly to be distinguished from later considerations about the rational form of the solution."

This aspect of science—the creative inner hypothesis which is checked and rechecked against the relevant aspects of one's experiencing, and which may then eventuate as the formal hypothesis to be operationally tested—has been greatly ignored in American science. Especially has it been ignored in American psychology, where it has been considered slightly obscene to admit that psychologists feel, have hunches, or passionately pursue unformulated directions.

Dr. Rogers has clear intimations of the wider meaning of all such investigations. He says in his last paragraph:

It is my judgment, as I try to understand the vigorous thrust of this phenomenological-existential movement in a variety of other fields, as well as in psychology, that it represents a new philosophical emphasis. Here is the voice of subjective man speaking up loudly for himself. Man has long felt himself to be but a puppet in life—molded by economic forces, by unconscious forces, by environmental forces. He has been enslaved by persons, by institutions, by theories of psychological science. But he is firmly setting forth a new declaration of independence. He is discarding the alibis of *unfreedom*. He is *choosing* himself, endeavoring in a most difficult and often tragic world, to *become* himself—not a puppet, not a slave, not a machine, but his own unique individual self. The view I have been describing in psychology has room for this philosophy of man.

A man who has exercised immeasurable influence in giving direction to humanistic psychology is Abraham Maslow, especially in terms of the concepts of self-actualization and the peak experience. His is a "naturalism" which stretches the mind and gives substance to the possibility of a functional philosophy of transcendence. His books, *Motivation and Personality*, *Toward a Psychology of Being*, *Religion, Values, and Peak-Experiences*, *Eupsychian Management*, and *The Psychology of Science* are culture-shaping instruments as well as texts of humanistic psychology. A distinctive theme in much of his work grows out of

consideration of what might-result if a psychology of healthy, aspiring human beings were widely applied at the social level. This *envisioning* sort of psychological theory, together with what might be termed continuous reality-testing, is doubtless responsible for the spread of Maslovian ideas and forms of expression into a great many areas of thought, especially education. The reach of his thinking is suggested in the following taken from the paper, "Meta-motivation":

Contemplation of ultimate values becomes the same as contemplation of the nature of the world. Seeking the truth (fully defined) may be the same as seeking beauty, order, oneness, perfection, rightness (fully defined) and truth may then be sought via any other B[Being]-value. Does science then become indistinguishable from art? love? religion? philosophy? Is a basic scientific discovery about the nature of reality also, a spiritual or axiological formulation?

If all this is so, then our attitude toward the real, or at least the reality we get glimpses of when we are at our best and when *it* is at *its* best, can no longer be only "cool," purely cognitive, rational, logical, detached, uninvolved assent. This reality calls forth also a warm and emotional response a response of love, of devotion, of loyalty, even peak-experiences. At its best, reality is not only true, lawful, orderly, integrated, etc.; it is also good and beautiful and lovable as well.

Seen from another angle, we could be said to be offering here implied answers to the great and philosophical questions about, e.g., the philosophical quest, the religious quest, the meaning of life, etc. (A great difference of course lies in the fact that the theoretical structure proposed here is offered for testing and research rather than for belief.)

Well, if we were able to think of ways in which an essay of Emerson—say, the one on Self-Reliance—might be "tested," it could then be regarded as a serious scientific paper, in the context of Dr. Maslow's proposals. Such possibilities indicate the kind of cultural transformation which may be implied by humanistic psychology.

In his contribution, Rollo May, another of the leaders of this movement, points out the

collaborative relation between existentialist thought and humanist psychology:

The existentialists are devoted to discovering the *basic human condition*, and *what constitutes it*. Often they go to extremes in their statements, as in Sartre's statement of "unconditioned humanism." When he writes, "Freedom is existence and in it existence precedes essence," he is saying that there would be no truth or science or morality or anything else if we leave the existing man out. (I don't agree, incidentally, with such an extreme statement; it seems to me the *structure* in which we human beings find ourselves must be brought into the picture.)

The existentialists, as I see modern history, are the shock troops of the humanistic movement. Like all shock troops, they swing high, wide and handsome, often speak rashly and leave others to do the consolidating. Modern existentialism has a special "crisis basis" which also adds to the confusion. . . . In the long run it may turn out that the aggressive, shock troop function of the existentialists will have been as important for the humanistic movement in psychology as it has been in theology, literature and other aspects of our culture.

These seem especially wise words.

It is quite natural that psychologists directly concerned with philosophical and moral questions should find classical examples and settings of problems in the novels of Dostoevsky. Frank Barron discusses human freedom in the context of the chapter on the Grand Inquisitor in *The Brothers Karamazov*, and Clark Moustakas uses the character of Prince Myshkin (*The Idiot*) to illustrate the meaning of honesty. The closing words in this volume, by Moustakas, show that *values*, far from being outside the scope of scientific study, are the essential stuff of humanistic psychology:

Honesty is not an old-fashioned virtue, an ideal which has no place in modern life but rather it is a vital requirement of growth, growth in self and growth in relation, a requirement which perhaps is not completely and purely realized in everyday life, but which still remains unyieldingly present in the self. Only as one speaks honestly is there real hope for continued self-identity, and for fundamental meeting. As long as one departs from the truth, one

continues to remain a stranger to himself and foreign to others.

COMMENTARY

TWO VIEWS OF OUR TIME

IN 1941, Sigfried Giedion, the art historian, pointed in general terms to the dilemma now given definitive form by Walter Weisskopf (see *Frontiers*). Giedion wrote in *Space, Time and Architecture*:

Some think that we stand at the beginning of a great tradition. Others, seeing the disaster around them, think that we are at the utmost end of an age. . . . If our culture should be destroyed by brutal forces—or even if it should continue to be terrorized by them—then the nineteenth century will have to be judged as having misused men, materials, and human thought, as one of the most wretched of periods. If we prove capable of putting to their right use the potentialities which were handed down to us then the nineteenth century, in spite of the human disorder it created and in spite of the consequences which are still developing out of it, will grow into new and heroic dimensions.

The value of Giedion's analysis lies in his recognition of the *subjectivity* of the choice between these alternate views of "modern progress." This subjectivity still exists today, although there has been a substantial increase in the number of those who recoil in horror at the ruthless predestinations of the technological imperative.

How, one may ask, can there be such a vast difference in opinion about such matters?

The explanation is not really obscure. One view, that of Prof. Weisskopf, is qualitative, the other quantitative in its measures. One contemplates the inward condition of man, the other counts the variety of "things" available for human consumption and praises the efficiencies available for the satisfaction of needs. The two fields of observation have little in common, likewise the values of the observers. It is hardly remarkable, therefore, that little or no dialogue proceeds between those who hold such opposite points of view.

This "breakdown in communication" is not really new, any more than the moral struggle in individual humans is something new. What is new is the coherent articulation of the problems of modern man as essentially moral problems, and in a language that permits no sophisticated evasions. Prof. Weisskopf's conclusions will be recognized as amply grounded in fact by a great many people. Why argue further? they will say.

Or, as J. B. Priestley laconically proposed in a recent novel: the really "lost souls don't wear their hair long and play guitars." The young we need to worry about give their parents no problems, "have crew cuts, trained minds, sign on for research in biological warfare."

CHILDREN ... and Ourselves

WHERE DOES DESIGN EDUCATION BEGIN?

[This is the first part of another of Robert Jay Wolff's discussions of teaching design to high school students.]

I

THE transformation that is taking place within design education, while giving evidence of hopeful progress, is at the same time getting tangled up in the loose ends of its own progressiveness. For one thing, we are continually asking ourselves where we are going before we have determined where our beginnings lie, and before this, the reason for beginning at all. It is possible, unfortunately, with the help of the well planned program to produce passable design without ever bothering to determine whether or not the effort has any roots.

A new beginning is always difficult. It is hard to leave behind the comfort of things known, to discard the familiar finalities within which we shelter our precarious inner security. Again and again we are disillusioned in the persisting hope that our growing collection of endings will make each new beginning less painful. In our eagerness for the peace that comes with certitude we are apt to accept something quite different, a kind of uncreative complacency which thrives only in the presence of the known and which collapses as soon as the lights go out. This is a common failing. The problem it poses is nothing new. The development of mankind and the course of human history has hinged on the outcome of the struggle to conquer or succumb to it. The mark of this struggle touches everything that we touch and the quality of the life around us rises and falls with it. It is the difference between a healthy society and a disintegrating society, between a well planned community and a slum, between courage and cowardice, between action and reaction, between new, unsolved needs and the deceptive safety of

outworn acceptances, between seeing things as they are and must be and as they once were and cannot be again. It is the difference between an art that faces its own times and an art that provides an escape from the present and from self.

Teaching, and especially the teaching of design, is a creative task. Like all creative tasks its beginnings are difficult. There is on the one hand that area of unpredictable, unresolved and constantly changing factors involving the human being, his environment, his needs, his hopes, his delusions and above all his creative power. On the other hand is the sum total of formulated knowledge, involving procedures and methods and ways and means, acceptable and established, ready for delivery, easy to administer and guaranteed to give, if not the essence, at least a fair facsimile of solid certitude. One has to make a choice here, and if it is on the creative side one has to begin to do some realistic and independent thinking. This is not to say that we should throw overboard the great body of knowledge and experience which the resources of this fantastic age offer us; nor does it mean that sound and workable procedures which pioneering and imaginative educators have left us cannot serve us. Nor does it mean that we need resort to the extreme of making a fetish of unimpeded originality which refers to nothing but itself. It means only that this inheritance, these instruments, must be constantly re-evaluated in terms of the changing reality which they were meant to serve. Patrick Geddes, one of the pioneers of what we know today as modern city planning, said as far back as 1884: "When any given environment or function, however apparently productive, is really fraught with disastrous influence to the organism, its modification must be attempted—or failing that, its abandonment faced." In principle this pronouncement today appears almost a truism, yet in actual practice it is as unheeded as it was the day it was uttered. We are not much nearer to evaluating man's work in terms of man's biological needs than we were in Geddes' day. To date we

have managed to survive this indifference to basic needs under the artificial stimulus of a self-inflating delight with high- and low-cost conceits in every field of design, and with the help of some hygienic improvements in the bathroom and labor-saving devices in the kitchen. We have survived till now and would continue to exist with occasional long-faced references to the warnings of Patrick Geddes and men like him if we were not suddenly faced with a new instrument that we cannot play with like motor cars. Atomic energy* either serves mankind or it destroys him. In other words, we have finally a product of man's making that cannot be corrupted. The importance of this simple fact to us as teachers of design is its insistent and inescapable reference to the ominous thought that people steeped in one kind of thinking and living cannot be expected suddenly to bring a different and nobler set of values to bear upon the one incorruptible issue of atomic energy. We are, as the saying goes, creatures of habit. And it is time we re-examined the habits that make up our way of living. There is no better vehicle for this purpose than the visual yardstick of design.

The most urgent task confronting the teaching of design today is that of creating visual habits organic to and consistent with those life-patterns, biological, ethical, and social, upon which modern man's well being so heavily depends.

We can first ask ourselves, what meaning does design have for most of us? What are our visual requirements with regard to the things with which we surround ourselves? And once we have identified the nature of our visual attitude we can ask ourselves what relevance it has to those more conscious and thus more easily identifiable social and individual values which are the motivating forces of our mode of life.

* In 1947, two years after Hiroshima, when this was written the new force was known as atomic, not nuclear energy.

It has been said that the art of any given period reflects the prevailing human attitudes of the time. If we find it easy to tolerate deception and deceit, pretentiousness and greed within the accepted pattern of daily living, then there is no reason not to expect this tolerance to include the kind of design that bears the mark of similar motives. The question is seldom raised as to whether contemporary taste in design has anything to do with those criteria which make for decency and integrity in human relationships. It is possible to evade the search for these values by assuming that the ethical actor is sublimated within the general character of the created form, and that adherence to progressive modes in art and design relieves us of any specific moral responsibility. This attitude ignores the fact that all forms of art are corruptible, even the purest: witness the banalization of the Mondrian discipline into a weak visual device for advertising radios.

Without the constant challenge of these basic criteria, the new and fresh developments in the art of our times will be converted into a mere reflection of the weaknesses of our society before they can grow to serve our deeper needs.

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FRONTIERS

Science, Technology, and Rebellion

[In the lead article in MANAS for April 16, Robert M. Hutchins gave concise generalization to the weaknesses and failures of American education in the post-industrial age. The paper presented here, by Walter A. Weisskopf, of Roosevelt University, resembles Dr. Hutchins' discussion in its related critical conclusions concerning the post-industrial age. The point, in both cases, is that such summary judgments can now be quite brief, so clear and overwhelming is the evidence on which they are based.]

SCIENCE and technology are supposed to increase man's power to understand, to predict and, thereby, to control nature. But science has shown us a universe so vast and complex that it defies comprehension. It has demoted man from what was previously conceived as a central position to a haphazard, accidental freak of creation whose role in the universe seems without any meaning. Everything that was supposed to give meaning and purpose to his life such as religious and philosophical ideas and ideals has been debunked by science. It cannot be denied that we know much more than our ancestors about the universe; but this kind of knowledge has not increased control of our destiny; on the contrary it has only uncovered our exposure to unknowable and uncontrollable forces. Real self-determination would require the discovery of meaning in the universe and in history; science has made both more meaningless and incomprehensible.

This conclusion is not contradicted by our enormous scientific and technological "accomplishments." Every step towards more control through science and technology has implicit destructive results; every step forward is accompanied by negative effects. Improvement in health and longevity brought about the population explosion; economic growth is tied in with urbanization and its overcrowding, ghettos, traffic jams, ugliness and discomforts. Some of the greatest advances in technology have been

connected with wars and the making of destructive weapons. Every new factory not only produces more goods but pollutes air and water and destroys the landscape. Pesticides remove harmful insects but poison nutritious plants. Cars transport us faster to points which become more and more undesirable to reach because the countryside is covered with cement and habitats have become unlivable.

Bureaucratization is not in conflict with science, technology and their industrial application, but is their necessary consequence. The enormous literature on mass organizations, including Galbraith's *The New Industrial State*, has made it quite clear that the requirements of modern technology for large capital investments and technological and managerial expertise push inevitably in the direction of more bureaucratization, and the domination of mass organization in industry and government.

All this works against self-determination and individual autonomy. It is obvious that individual autonomy is best served in small communities with *direct* democracy. Even direct democracy reduces autonomy if it applies majority rule. *Representative* democracy weakens individual autonomy further; and in a mass society where the individual can participate only by going to the polls once in two or four years, and is subject to the rule of agencies over which he has little control, there is precious little autonomy. To be optimistic about individual self-determination in a time when the secret decisions and mistakes of a few presidents and their advisers got us into the most insane war of our history seems almost ludicrous.

What the economy of mass consumption does to our standards of living has been pointed out by Galbraith. It has subjected us to the imperative of producing and consuming more and more goods regardless of their importance for our individual and national goals. As he says:

More die in the United States of too much food than of too little. Where the population was once

thought to press on the food supply, now the food supply presses relentlessly on the population. No one can seriously suggest that the steel which comprises the extra four or five feet of purely decorative distance on our automobiles is of prime urgency. For many women and some men clothing has ceased to be related to protection from exposure and has become, like plumage, almost exclusively erotic. Yet production remains central to our thoughts.

And more and more weapons and missiles bring us closer to the possibility of final destruction. We are getting accustomed to a way of life which seeks its ultimate meaning in the pursuit of elusive possessions and comforts. Under the impact of these material standards—from which some claim we gain more autonomy—the consumer has been subjected increasingly to the domination and seduction of advertising and salesmanship and has become unable to develop and apply any individual standards for what is good and what is bad in consumption. Under the impact of an economistic, materialistic life-style which meets the alleged needs of corporate and aggregate economic growth, we have accepted the insane idea that having and consuming more and more is a good thing.

The psychological wisdom of all ages shows that the contrary is true and that moderation and balance in consumption and possession is the road to mental health and well-being. How one can maintain that our so-called high standards of living are mentally and physically healthy in view of the facts shown to every psychiatrist by the occupiers of their therapeutic couches: the boredom, the alienation, the meaninglessness, the self-accusations and complexes of the rich, the powerful and the upper classes can only be explained as conscious or unconscious subservience to the industrial establishment. That does not mean that the fight for greater equality of income distribution is meaningless; under the given conditions the glaring differences between standards and styles of life are a deep source of alienation and unrest; but without moderating the drive of the affluent majority for more and more income, such equalization is condemned to failure.

It is sometimes argued that the present-day rebellions are a continuation of the development towards modernization. There is, however, a deep conflict between the attitudes of the new rebels and all the technological and economic values of modern society. One of the most penetrating studies of the new rebels (Kenneth Kenniston, *The Young Radicals*) talks about the ambivalence of post-modern youth towards technology. The young rebels reject "bureaucratization, impersonality, regimentation . . . conformity, its bigness, stratification, fixed roles, . . . efficiency, quantification, and measurement of human beings"—all unavoidable traits of technological society. But the rebels have to use technology, especially its mass media, and their rebellion is partly made possible by the affluent economy. There can be no doubt, however, that, in spite of this ambivalence, the rebels feel little or no optimism concerning the existing society, and that they do not see a direct line of progress from technology, science and affluence to self-determination and autonomy. Their very rebellion is directed against the lack of participation which technological society has brought about. What the young ones rebel against is science, technology, and economic growth as ends in themselves, as ideologies.

This is the end-result of a long dialectical process in the West in which the very instruments of progress have brought about an alienation from meaning, goals, purpose, and values. The process started with the secularization of religious beliefs; Western ideals such as dignity of the individual, autonomy, freedom, self-determination, were derived from religious beliefs. But during the eighteenth and nineteenth centuries these ideals were translated into secular thought, and based on the idea of natural law and inalienable rights.

This basis was destroyed by the very factors now held to be conducive to their actualization. Technology fostered a pragmatic attitude towards ideas and values; in technology, the ends are not questioned, they are given by technical

requirements, and only the appropriate means are considered. Science destroyed the realm of ideals because the normative seems to have no place in the world of scientific facts. Science and technology implicitly led to a disintegration not only of ideals and values but removed them from their universe of discourse and activity altogether. In science, technology, and business, ideals and moral principles have no place or are subordinated to production, consumption and the profit motive. Thus, in the fields which predominate in modern society, ideals are homeless; and all other dimensions of life in which ideals may have been formed—such as religion, ethics, moral thought, art, became of secondary importance and were neglected and emptied of values. What originally were means—science, technology, and economic activity—became, in the absence of any belief system about ultimate values, ends in themselves. The realm of means was elevated into the realm of ends. Science, technology, and economic action became ideologies. Thus we arrive at a thought, art, became of secondary importance and neglected and emptied of values. What originally situation in which economic growth and technical change are the ultimate goals of business *and* of society.

This is the main cause for the anomie, apathy, meaninglessness, and lack of purpose in Western life which is so widely discussed today as alienation. It is against this alienation that the radical rebellion of the young is directed. Therefore, this rebellion is also directed against the values which stem from technology, business, and a science empty of values. This science, together with mass society and the conformity of organization men in science, industry, government and in the universities, is the butt of the attack. That the rebels are ambivalent about the robots does not contradict this fact. What matters is that the rebels aim at the humanization of the robots: they want them to be means to ends which are not dictated by them and by the technocracy which serves them. Whether this is possible is the great question of post-industrial society. The solution

to this problem, however, will not be promoted by closing our eyes to the detrimental effects of science, industry, and technology on the human condition and their dialectical conflict with freedom, self-determination, and autonomy.

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