THE CONCEPTION OF MAN

SOME years ago the phrase, "the image of man," became popular among writers who undertook to further the "quest for identity," another phrase which became fashionable for a time, until the intellectual sophisticates began to make fun of it. The expression, "image of man," is probably distantly related to what is said in verse 27 of chapter one of Genesis: "So God created man in his own image, in the image of God created he him; male and female created he them." This, one could say, was the source of the anthropomorphic idea of God, for if man was made, as verse 26 says, after God's likeness, then the deity must have a resemblance to man, although, our forefathers reasoned, a vastly enlarged and supernatural version of human appearance.

What was the difference between the two "images"? A chief difference, according to the theologians, was that God could create while man could not, a distinction that was insisted upon and backed by the threat of extreme punishment for heresy. For centuries the mere suggestion that man could create too was condemned as outrageous impudence, among the worst of sins in an endless catalogue of possible offenses. Indeed, the crime of Galileo, which so enraged the Pope, included the claim that the mathematical calculations of humans enable men to know as God knows, although our knowledge "proceedeth by ratiocination, and passeth from conclusion to conclusion, whereas his is done at a single thought or intuition."

This view of human capacity was indeed the seed of the Renaissance—the altering of the conception of man from that of a weak, impotent sinner needing salvation by the intervention of a higher, outside force, to the conception of a being with creative capacities of his own. The scientific Revolution provided energies for this great change, yet, in their determination to avoid submission to the irrational claims of theology, the scientists systematically excluded from the universe they were constructing any idea of spiritual causes or transcendental fulfillments. They would study the Book of Nature, and that alone, outlawing as either guess or metaphysical speculation the possibility of a part played by higher intelligence.

Where, then, did man come from, and what was the substance of his being? The modern world-the world, that is, made by scientific thinking and men of learning-gave the answers provided by Darwin and Huxley, Marx, and Freud. It is an irony of the great struggle for freedom of mind begun by the scientists that man, at their hands, remained a creature, but a creature fashioned by the random motions of matter, by the accidents of natural selection and the struggle for existence instead of the molding hand of Jehovah. And meanwhile, despite the multiplying wonders of human capacity and invention, and the transformations of life that they brought, the behavior of mass man-man endowed by science with increasing power of manipulation but without equivalent responsibility-produced a world in which it was becoming more and more difficult to live at peace. The question arose-where and how did we go wrong? Does the fault lie in our "image of man," the conception we have of ourselves?

Here we want to look at the word "image." Does its use preclude getting beyond the limitations of an artificial facsimile, a portrait of certain external appearances? Is "image" able to comprehend the polarities of the human being, in all their extraordinary contradiction of nobility and degeneration, their greatness and their shame? If we are indeed creators, along with the passive clay that is pushed, battered, and twisted by the forces of nature, by other men, and by circumstances,

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how can such a being be represented by a mere "image"? An image has no potentialities of its own but wears only the stamp of its creator, who is not an image but the maker of images. We can, it follows, have a *conception* of man but not an image. While it goes without saying that we are continually making images of ourselves, these can at best never be more than partial representations. Any statement about the human being, if it attempts finality or completion, can be reasonably contested. A final statement about man is the termination of his meaning. No man alive to his own possibilities will submit to it. Do not define me! he will exclaim in indignation. You don't know enough. Nobody does.

He is right. I, he might say, am busy defining myself and I am not finished yet. I don't know how it will all come out. Humans, then, are both creative and unfinished beings. They have no image. Every image tells only lies about them. This is the terrible embarrassment of sensitive administrators who are forced by the exigencies of their work to make what seem final decisions about people under their supervision. In a good society, there would not, could not, be final decisions about people.

A necessary art of government, then, would be skill in making such decisions as must be made less final. But only the quality of the people can determine the measure of success in this. The pursuit of the answers to A. H. Maslow's basic questions—"How good a society does human nature permit? How good a human nature does society permit? What is possible and feasible? What is not?"—must eventually make this clear. The endless reports of the statistical sociologists are of interest, but they have no finality. Musing about such matters, Joseph Wood Krutch said in one of his essays ("The European Visitor" in *If You Don't Mind My Saying So*, Sloane, 1964):

Only during the past hundred years have moral and social philosophers squarely faced the fact that it is at least easier to be law-abiding, well educated, and responsive to "the finer things of life" if you are not hungry or cold. Material welfare, they decided, is a *sine qua* non for welfare of any other kind. But most Americans have taken a further step which does not logically follow; and despite the fact that Europeans still blame us they and the rest of the world are following us as well as they can. We have forgot that a *sine qua non* is not always the "one thing necessary."

We take it for granted that when a people is well housed, well clothed, and well fed then it will inevitably add unto itself all other desirable things that is if there really are any other things of importance. But in actual fact it just Isn't turning out that way. The vast majority of our well-fed wellhoused, and well-clothed population has not turned toward intellectual or artistic pursuits but simply taken a greater and greater interest in even more food, better houses and more expensive clothes. The more abundant its material riches have become the more thoroughly it has come to believe that only material riches count.

Now he gets to some figures. After some remarks about our "standard of living," he says:

A large brewery has just recently been spending a lot of money on advertisements proudly informing the general public that the government statisticians have recently added beer to the list of commodities whose retail price is to be taken into consideration when the cost of living index is computed. Beer, in other words, has been recognized as a staple requirement in a satisfactory life, and with that fact I have no quarrel. But suppose to our official index of the standard of living we were to add a few items which have at least as much right to be called factors in the good life as beer has to be considered a factor in a satisfactory physical life. Suppose we included, for example, the reading of books and made the modest assumption that people who read books do have to that extent a somewhat higher standard of living than those who don't. How would we stand?

The answer is, apparently, that we would not stand so very well and that so far as that one factor is concerned our standard of living is a good deal lower than that of certain European populations which we pity. According to the results of a survey recently published by the American Institute of Public Opinion, 61 per cent of those interviewed had not read a book during the past year. Comparison with a similar study made two years ago in other Englishspeaking countries produces these figures: in England 55 per cent of the population reads books; in Australia 34 per cent, in Canada 31 per cent; in the United States 17. And this is despite the fact that the average Englishman has had far less schooling and far less money spent on a so-called education.

Just how "reading" should be weighted in compiling our standard of living I do not know. Therefore I do not know just how far the Englishman's greater ability to find satisfaction in books would cancel out the much larger per capita supply of automobiles, television sets, and bathtubs in the United States. But ability to read should count for *something* and it is certainly not true that in all respects the "standard of living" is higher here than it is anywhere else.

Mr. Krutch's summary will do as an instance of how the "image of man" of a great many people is likely to be shaped. Where, after all, does one look for the ingredients of what goes to make us up, if not to the social scientists who watch us closely and report on our behavior, our likes and dislikes, and what we spend our energies trying to get? Such researchers do indeed construct "images" of us, and often these images are found to be of great value to merchandising experts who try to make a science of dividing up the "market" for their wares into different human "types" which they then proceed to define—as takes place, for example, at that hallowed scientific institution the Stanford Research Institute (International). And why not? Aren't we a market society?

Yet one is led to remember that there are other ways of regarding possessions in relation to the ideal of human excellence. At the conclusion of his article on Voluntary Simplicity, published in India in 1936 (reprinted in MANAS for Sept. 11 and 18, 1974), Richard Gregg wrote:

If simplicity of living is a valid principle there is one important precaution and condition of its application. I can explain it best by something which Mahatma Gandhi said to me. We were talking about simple living and I said that it was easy for me to give up most things but that I had a greedy mind and wanted to keep my many books. He said, "Then don't give them up. As long as you derive inner help and comfort from anything, you should keep it. If you were to give it up in a mood of self-sacrifice or out of a stern sense of duty, you would continue to want it back, and that unsatisfied want would make trouble for you. Only give up a thing when you want some other condition so much that the thing no longer has any attraction for you, or when it seems to interfere with that which is more greatly desired."

Should these subtle transactions of the human spirit be included in our conception of the nature of man? How would you generalize them for the purpose of forming the concept?

Similar considerations are brought to view in the work of A. H. Maslow, especially in his last book, *The Farther Reaches of Human Nature*, in which he says: "I have found that if I select psychologically healthy humans what they like is what human beings *will* come to like. Aristotle is pertinent here: 'What the superior man thinks is good, that is what is *really* good'."

A great deal more in this book seems on our subject of how to conceive the nature of man. For example, Maslow says:

If I ask the question, "Of what are human beings capable?" I put this question to this small and selected superior group rather than to the whole of the population. I think that the main reason that hedonistic value theories and ethical theories have failed throughout history has been that the philosophers have locked in pathologically motivated pleasures with healthily motivated pleasures and an average of what struck amounts to indiscriminately sick and healthy, indiscriminately good and bad specimens, good and bad choosers, sound biologically and biologically unsound specimens.

If we want to answer the question how tall can the human species grow, then obviously it is well to pick out the ones who are already tallest and study them. If we want to know how fast a human being can run, then it is no use to average out the speed of a "good sample" of the population; it is far better to collect Olympic gold medal winners and see how well they can do. If we want to know the possibilities for spiritual growth, value growth, or moral development in human beings, then I maintain that we can learn most by studying our most moral, ethical, or saintly people.

On the whole I think it is fair to say that human history is a record of the ways in which human nature has been sold short. The highest possibilities of human nature have practically always been underrated. Even when "good specimens," the saints and sages and great leaders of history, have been available for study, the temptation too often has been to consider them not human but supernaturally endowed.

This implies, among other things, that we might best go to biography for light on the nature of man, following what could be for us the suggestion of picking the "gold medal winners" for study. Those most familiar, in this case, are men and women whose lives have had examination in the pages of MANAS. Take for example Arthur Morgan, leading flood control engineer of the country in his time and an extraordinary educator. Another example would be John Muir, who has had recent attention in Review. Of Morgan, it seems important to draw attention to the fact that, speaking of his teens (in the 1890s), he said many years later:

Perhaps the most difficult decision I ever made was that my own deep conditioning should be examined. When I did arrive at that conclusion I went far beyond the immediate issue. I arrived at the conclusion that free, critical inquiry cannot be free so long as there is an emotional drag holding one to particular beliefs. Desire or intent to justify a particular belief or attitude leads to unrepresentative selection and inaccurate weighing of evidence. It would be my aim not to try to make myself believe any doctrine or theory, nor to try not to believe. I would want my beliefs and opinions to be my best judgment from the evidence, not adopted because of comfort or courage I would get from believing.

He reached this point of view, Morgan said, when he was about sixteen, and maintained it for the rest of his long life-until he died at ninety-What, then, would have been most seven. important about Morgan, in terms of our conception of a particular human being, if we had wondered about him at, say, the age of twenty or twenty-two, as a dish-washer in some restaurant in the West? Would you think of him "objectively" and definitively as one of thousands of youths seeking their fortune around the country, doing what work they could find, or would you take into consideration, if you could know about it, the quality of his resolve, the man he had determined to become?

The question answers itself. *Of course*, the vision and driving energy of this boy becoming a man is the most important thing about him. Which leads us to say, of human beings in general, that their real being lies in the nature and direction of their becoming, not in a precise snapshot of where they are at any given moment.

With Muir, a very different sort of man, the case is similar. In his early life after reaching California, Muir got a job as a sheepherder in the Central Valley. Would this be sufficient to type him for definition? Hardly. Muir was in the process of falling in love with Nature, as experienced on the slopes of the Sierra Nevada, where he brought the woolly animals to graze in mountain meadows. This love shaped both his mind and his career thereafter. To a man of his sort, love requires understanding, so Muir went to school to the mountains and eventually, it might be said, he knew more about them than anyone else. Knowing, for him, meant what it meant for Morgan. It meant a systematic inventory of what and how he thought, and the cleansing of his mind of all unexamined assumptions. He dispensed with the "creeds or code of civilization." He read books on mountains by authoritative writers, but then took Nature as his text in order to make up his mind. He was, his most recent biographer, Michael Cohen, says, "engaged in an attempt to find a place where a man of integrity and sensibility truly belonged." Cohen quotes a letter Muir wrote at this time:

"I have no fixed practical aim, but am living in a constant communion with Nature & follow my instincts & am most intensely happy," he wrote to his brother Daniel in 1871. But probably Muir was rarely so confident of the direction his own life had taken. He justified himself in his journal, arguing that the rest of his family had all settled down, and there was perhaps room for one of the eight to carry on an experiment in life. All the rest were "exemplary, stable, anti-revolutionary," so he could be spared for something else.

It is impossible for me not to draw certain parallels. Thoreau had written, during the Mexican War, that the State itself exerted tremendous force on the individual. "You must live within yourself, and depend upon yourself, always tucked up and ready for a start, and not have many affairs," he said. He knew what it meant to go light by leaving the baggage of civilization behind. He felt the burden that my generation has felt, far more impersonal and institutionalized than the forces which worked on Muir. Going light requires that the wanderer turn away from the affairs of state.

Of Muir Cohen wrote:

His mountain rambles were filled with the lessons of rocks and the songs of waterfalls: serious study and pure pleasure. He was not willing to sacrifice either. In fact, he had become content since his first summer to reconcile himself with the possibility that he might never be able to read the grand page of the Sierra's history. Nature, he knew, was deep and difficult, and a man's powers shallow. "Yet why should one bewail one's poor feeble ignorance. The beauty is the visible and that we can enjoy, though the grand mechanical causes may lie beyond our ken."

Were Thoreau and Morgan and Muir "isolationists" who turned away from the world, absenting themselves from the responsibilities we hold to be proper and necessary? Not at all. They freed themselves for what they recognized as more important alliances. Will anyone. looking reflectively at the world these days, deny that this may be exactly what the rest of us should do?

But all that stuff about Nature, in the case of Muir—do we really want to learn so much? Are we about to spend a day gazing at a new mountain flower, getting to know it inside and out? Aren't there other things that need attention more? No doubt, but the comment is beside the point. Looking at the lives of these men instructs rather in what it takes to become an effective human being, whatever you choose to do. You don't have to become a mountaineer and lie down to embrace glaciers, but rather do what you decide to do with that sort of commitment.

REVIEW A NEEDED "SHIFT OF ATTENTION"

THE good books now being published show that it is very nearly time for the rewriting of world history. History is meant to be an account of what is happening on the planet. Until fairly recently, histories related the beginning, the growth, and the onward push of national groups. Most of them started with the interposition of the gods who in various ways established on earth the races of humans. For the Greeks, Zeus was the divine progenitor of men, while Prometheus, who felt that his work could be improved, completed the act of creation. The ancient Hebrews assigned this task to Jehovah, who had the unwanted collaboration of his rival, Lucifer, who brought mankind the gift of knowledge of good and evil in the form of an apple. Then, for the Christian successors of the Jews as mankind's historians, Jesus Christ became the Promethean messenger of Heaven who brought the secret of salvation or completion.

For a long time the chroniclers of events on earth explained to their readers that the enterprises undertaken by men were fulfillments of divine instructions. Alexander the Great claimed a divine origin and is said to have insisted on divine honors for his achievements. At the end of the eleventh century, Pope Urban II called upon the knights of Christendom to recover Jerusalem from the hands of the Mohammedan unbelievers, and the responding cry from the European nobles. Deus vult (God wills it), showed the strength of his appeal. Meanwhile, the Jihad of Mohammed's followers indicated the corresponding sanction for the people of Islam. The religious justification of the Spanish Conquistadores in subduing the peoples of the New World continues this theme, which, indeed, also appears in President McKinley's explanation for the declaration of war against Spain in 1898. His prayerful wondering found answer in the idea "that there was nothing left for us to do but to take them all, and to educate the Filipinos, and uplift and civilize and

Christianize them, and by God's grace do the very best we could by them, as our fellow-men for whom Christ also died."

This motive, however, has hardly survived into the present, save for Fundamentalist suspicion in America of "godless" Soviet Russia and its atheist program, which must be opposed at any cost. There is general agreement today that history is or ought to be made by lovers of political freedom, especially those who by their industry and their intelligence have proved that they are the chief authors of civilization and prosperity. Manifest Destiny has been covertly behind the prevailing historical accounts of the rise of the United States, and while ideological thinking has become less and less evident in the work of scholars, the idea that our country sets the right example for all the world is the assumption of a great many people. Our affluence is all the proof that is needed. The market system has been largely endorsed by orthodox religion, by the economists who are most respected and listened to, and by numerous leaders who could not possibly get anywhere in politics if they failed to found their public utterances on these views.

Today, however, a fundamentally different point of view is emerging. Its representatives are varied but the unity of their conclusions, their intelligence, integrity, and insight can hardly be disputed. Best known, perhaps, in this group are individuals like Rachel Carson and E. F. Schumacher, who wrote most persuasively on what they had come to believe was really going on in the world. They combine scientific discipline with a profound concern for human welfare. They point to the facts of current history, provide intelligible explanation of the recurrent and worsening disaster now occurring in many parts of the world, their conclusion being that the time has come to learn to live not only with one another but with the planet that is our host. They show the growing unimportance of thinking in terms of national achievement and destiny, demonstrating by various means that the world is

one, that humanity is one, and that it is no longer possible for one nation or people to prosper at the expense of others. The powerful nations can no longer afford, they say, to pursue courses of aggressive self-interest. Industry can no longer be allowed or allow itself the ruthless exploitation of natural resources, which are diminishing at an unprecedented rate, by reason of the methods vastly magnified by technology.

The people who are saying this began about a century ago as a handful of pioneers. One of the first was George Perkins Marsh, who found an audience of like-minded readers with his now famous book, The Earth as Modified by Human Action (1874), which had first appeared some ten years earlier as Man and Nature. Thoreau, our first and greatest outspoken philosopher of nature, had died a little before (in 1862), the impact of his thinking yet to come, and Marsh wrote as a scientific historian, describing at length and in detail the effects on the earth of human use and misuse. Then came numerous others, the conservationists who warned of what would happen if humans did not learn restraint. Today there are solid ranks of conservationists. environmentalists, and ecological scientists who are reciting the damage we have done and are doing to the lands and waters by which we survive, and calling for little less than an actual reversal not only of our policies but our habits of thinking.

These reformers travel a long road, and a hard one. One of the most distinguished of their number, Aldo Leopold, wrote in an essay in *Round River* (1953):

One of the penalties of an ecological education is that one lives alone in a world of wounds. Much of the damage inflicted on land is quite invisible to laymen. An ecologist must either harden his shell and make believe that the consequences of science are none of his business, or he must be the doctor who sees the marks of death in a community that believes itself well and does not want to be told otherwise.

This is to some degree still the case today. Too many people, too many nations, go on doing more or less what they have been doing for centuries, even though the consequences are before us in carefully compiled reports as well as in hardly veiled economic difficulties, to say nothing of smog-laden air and polluted water and eroding soils.

In *The State of the World: 1985,* the second volume of a series which each year reports on indications of progress toward a sustainable society, and on the obstacles which stand in the way, Lester Brown, head of the Worldwatch Institute and principal editor and writer of the series, brings in the point made by Leopold, in his first, introductory chapter, titled "A False Sense of Security." This is his way of pointing out that we can no longer neglect or ignore the effects of what we are doing. He says:

The collective actions of a world population approaching five billion now appear capable of causing continental and even global changes in natural systems. As human pressures build, the relationship between people and their natural support systems can cross key thresholds, leading to a breakdown.

A dramatic example is the recent hunger in Africa, by no means over:

The spotlight of public attention focused in late 1984 on emergency food relief; the media regularly attributed the famine to drought. But the drought, though a triggering event, is not the basic cause. Per capita grain production peaked in Africa in 1967 and has been declining nearly 1 per cent per year ever since. The drought merely brought this long-term deterioration into focus. The decline is largely attributable to three well-established trends: the fastest population growth of any continent in history, widespread soil erosion, and the failure by African governments to give agriculture the support that it needs....

In addition, there is now evidence that population growth may be driving climatic change in Africa. The sheer number of people seeking to survive on arid, marginal land may be driving a selfreinforcing process of desiccation, literally drying out the continent. Coming at a time of declining food output, this suggests a breakdown in the relationship between people and environmental support systems that could lead Africa into a crisis of historic dimensions—one that goes far beyond short-term emergency food relief. The continent-wide disintegration could gradually shift attention from East-West confrontation, which has dominated world affairs for a generation, to the deteriorating relationship between people and life-support systems that now threatens the security and survival of so many.

The "shifting of attention" that Mr. Brown calls for is certainly needed. While both Washington and Moscow doubtless have vast libraries of "research" devoted to attempts to anticipate what the "other side" is likely to do, all this careful study will be a complete waste when it is discovered that we know so little about the earth that supports us both, that great populations may be actually going hungry in less than a century. All that the reasonably intelligent reader needs to persuade himself of this is a careful reading of *The State of the World*.

Ideology is *not* the issue, if it ever was. The issue is the application of simple common sense in behalf of world survival. If people could begin to work together along these lines, they might find out things about each other that would put a quietus on the endless political arguments of the day, which have indeed become irrelevant Meanwhile governments in both East and West remain tripped on economic issues, when what is needed is to see that many of the economic problems are now reflexes of ecological problems. "Unfortunately," as Mr. Brown puts it, "there is no overarching body of theory that integrates economic trends and ecological forces. Economic analysts turn to highly developed theory in their field and ecologists rely on well-established ecological principles. But there is no easy way to integrate the two approaches."

The State of the World seems at least a real beginning in this direction, providing a foundation of the relevant facts. The study covers food production the world around, the diminishing supply of fresh water everywhere, what is happening to fishing harvests, the efforts to harness renewable resources for energy, progress in energy conservation, and of greatest importance, perhaps, what is happening to the forests of the world as a result of such pollutions as acid rain.

State of the World is a 300-page paperback which sells for \$8.95. It is a management manual for citizens of the world. Few books are as effective as this one in helping people to alter their ways of thinking. One thing about it is that you soon feel you can trust the writers. They have no "angle' except the communication of what seems vitally important for us all to know. In his final paragraph, Lester Brown says that "the continuous continent-wide decline in per capita food production can be reversed only by tree planting, family planning, soil conservation, and water resource development on a scale and with an urgency exceeding any international effort since the Allied Powers mobilized during World War II." And he adds: "It demands leaders who will shift the world's attention, and its resources, from maintaining East-West hostility to restoring natural systems that ultimately sustain all societies." In conclusion, we should add that here and there are countries that have begun in some respects to move in the right direction. But they are, of course, too few, although they show what it is possible to do.

COMMENTARY NONEXISTENT PROGRAMS

MANAS recently received a letter from a reader who wanted help in locating programs of "alternative education" used in schools. In our reply we said that the real alternatives come from the vision and insight of individual teachers and cannot be "programmed." We suggested that her difficulty in finding this information was due to the fact that it does not exist.

Our feeling in this matter has been reinforced by reading Seonaid Robertson's book (see "Children"). Speaking of the reports of two workers in a modelling class, one a trained artist, she says:

These two modellers give us valuable insight into the relationships between three things: the qualities of this material which results in its "naturally" assuming certain shapes; the thoughts or ideas that arise in the mind of a particular person; the forms that are actually found possible to a disciplined control of the medium, which arise from the other two. Both these students found or were seized by a theme-the human family-so rich in itself that in interplay with the clay, it soon involved them in philosophic musings. "There came to my consciousness-a feel of the tension in the clay, and how as I pulled it left or right with my two hands, it was opposing and yet indissolubly one like love." The other modeller finds herself quoting Robert Frost and Keats. For her, only the words of a poet can describe her experience, and it in turn illuminates her understanding of Keats.

Anything whatsoever may serve as an inspiration for the artist, and the most unlikely object may be illuminated by his personal vision. But it is no accident that from the earliest times and still today, artist—sculptors such as Moore and Giacometti, poets, dramatists and even unusually responsive architects—continue to find repeated inspiration in this and other universal themes. They are the basic stuff of our lives, and in shaping our statement about them—however individual—we are in some sense one with the artists who have done so and with all men.

One reason we have for extracting these quotations from Seonaid Robertson's book is to

get readers to send for a copy—they'll never find it in the stores in this country. The price is four pounds. The publisher is the Gryphon Press, 38 Prince Edward Road, Lewes, East Sussex, U.K. The only other book for which we have comparable enthusiasm (in this field) is Robert Jay Wolff's *On Art and Learning* (Grossman, 1971), the contents of which first appeared in "Children."

CHILDREN ... and Ourselves WORKING WITH CLAY

AFTER one has settled the question of "Why teach art?" and is getting down to business with a group of children or adults, the experienced teacher has practical human tendencies to deal with. For example, in *Rosegarden and Labyrinth* (Gryphon, Sussex, England), which tells about experiences in teaching art to people of all ages, Seonaid Robertson says:

Those who start painting in adult life come with a stock of second-hand and often trivial images in which they try to clothe their individual feelings. Gifted teachers have shown that it is possible to bypass this difficulty by various means, but with clay there is much less preconception of what is accepted as "art." Therefore, I chose studies in clay for this part of the investigation [on what people are likely to do when they begin work for the first time]. Clay lacks the immediate attraction and seduction of colour, and so relies completely on the form, and its apparently inert mass does not even limit and enclose the form as the rectangle of a paper or a canvas does. Precisely for these reasons, and because it is so responsive to the touch, it often gives rise to a very personal language at the first attempt.

Noticing and thinking about matters of this sort comes naturally to those who take seriously the teaching of art, or, indeed, teaching of any kind. Doing real work means getting beyond the superficial overlay people have on what "art" is supposed to be like. It means to begin feeling, if only a little, what an artist feels when he works. He has his own inner reasons for giving shape, form, color and relationships to the picture or object he is fashioning, and this means having independence of the commonplace in the reasons for what he is doing. Independence means being able to see the world without prejudice, it means getting rid of ordinary confinement and working only under limitations which are the actual laws of life. Freedom, as philosophers have declared, is knowledge of necessity. With this goes the semanticists' rule Words, things, ideas have meaning only in contexts.

Seonaid Robertson goes on:

The *disadvantage* of choosing a new material is that there is little opportunity to go far enough in the period under study to produce anything which has value as a work of art. For (though it is difficult to separate them) I was not interested in clay as a diagnostic or therapeutic material but as one which could offer children and adults the experience of shaping, of creating coherent and expressive forms within the tradition of their culture.

In asking what exactly is experienced in contact with a material, I have used three sources of information: my own experience as modeller and potter; observation of the shapes produced in the course of working and how they are modified; the comments of the makers. The comments on which I have chiefly drawn here were made immediately after completing a first piece of work in clay . . . by children, by students, by teachers . . . and other adults. I introduced them to modelling when they were blindfolded because I found they got a more immediate contact with the clay, that thus they concentrated more on the aspects of touch and threedimensional form. Also, they did not get distracted by their neighbors or become self-conscious about their own products.

A teacher who took part in a blindfold modelling session gave his reactions:

One was aware of the intense absorption of everyone. As the students settled down with their clay and got out their scarves, there was quite a lot of cheerful chatter and laughter as they blindfolded themselves or one another. I had expected that this would continue through the period of the modelling, especially as one might expect some selfconsciousness and embarrassment with so many people modelling for the first time—but the strange thing was that as soon as our fingers touched the clay we each became completely absorbed in our isolation with what we were doing and there was complete silence for a long period.

Watching them, the teacher saw that most of them were enjoying tactile pleasure simply in handling the clay, shaping it in various ways, finding out what they could do with it. Then they began to get ideas. One student said: I took the clay in my right hand and squeezed hard and found that I had made deep hollows and divided the clay into three parts. I then had the idea of a body with two listening ears and saw in my mind a picture of the internal auditory mechanism. This I tried to convey in the more central part through a tortuous series of communicating apertures. The outer parts I moulded as ears or at any rate spread appendages.

A young woman reported:

The clay is very cold and I must work it and hold it in my hands, and move it quickly about until it becomes warm and living. I will work it into a smooth, smooth ball which fits into the hollow of one hand. I will push it thin in the middle like a big bubble which bursts and must be recaptured again by the larger mass. I will make of it a long thing which can be held in both hands at once.

I like the feeling of the now warm and moving clay. I should like to have something which is held light in one hand but which is within the firm grasp of the other. I wrap my fingers caressingly around this thing which is mine and it in turn enclosed my thumb with itself. It is a thing *made to be held by me*.

A grammar school boy of eleven said: "I just stroked the clay beneath my fingers and I thought it was like a woman so I put a baby in her arms." Some of the students were also studying body movement to music. Their work was "characterized particularly by a sense of flowing and balanced forms." One of these, "who produced a trivial and cliché swan," wrote:

Almost immediately I felt the hollow of a swan's back emerging to a finely pointed tail, but then I did not concentrate on what I was doing, because swans are connected with the place I am happiest in the world—the Helford River—and I enjoyed the memory of the sun on the water and the tingling exhilaration of being alone on a bright summer's morning. I could not get its smoothness and roundness of form, and they are such graceful creatures.

The teacher remarks: "The whole genus of commercial pottery swans and paintings of swans with cloying sentimental associations are a bog from whose clutches only an innocent or a genius can rise to new forms." "Innocence" seems a good word to use in this connection. One might remember that this teacher of art has worked most of her life in England, and one might reasonably ask, would the same sort of free and spontaneous response to her questions about how the students felt about what they were doing be obtained in the United States.

FRONTIERS Hazardous Products

RECENT items in the press—the good magazine press—recall the remark of Francisco Ferrer, Spanish anarchist and educator, who was executed in 1909 by the Spanish government on the charge of having headed the July Revolution in Barcelona. His trial, it was said at that time, resembled that of Alfred Dreyfus. Anatole France wrote: "Everybody knows full well that Ferrer's sole crime consisted in this: he founded schools." Ferrer spent his last hours writing on the education of children. His manuscript ended: "I cannot continue, they are taking my life."

What was it he said that is so memorable? It was this: "A child's education must begin with his grandfather."

How so?

We remembered this comment after reading in the March Progressive Erwin Knoll's, the editor's, page providing what he calls "two bird stories." The first is about the American appetite for low-cost juicy hamburgers. The price of these delicacies, he says, remains low because of the cheap beef fast food chains are able to buy from Central America-"beef raised on pasturelands established almost entirely at the cost of tropical forests." What's wrong with that? One thing wrong, according to Norman Meyers, who is quoted by Mr. Knoll, is that these forests are (were) the winter home of "a vast throng of North American songbirds"-kingbirds, warblers, vireos, tanagers, peewees, and many others-150 species in all. But now, during the past thirty years, "three fifths of those forests have disappeared," and if the present rate of destruction continues, they will be all almost gone by 1995. When the forests are gone the birds won't be able to go there; and this means that they will no longer control the rapidly multiplying insect population in Central America, and then, of course, more pesticides will be needed-perhaps pesticides of the sort that killed 2500 people in Bhopal, India.

Meanwhile the Central Americans will have to live in "a desolate landscape peopled by desperate souls. "

Erwin Knoll's other bird story is about the wood stork, already an endangered species, whose survival is now threatened by the plan to reopen a plutonium-producing reactor in South Carolina that will discharge warm water which will destroy a key feeding area of the wood storks. What is the issue? The survival of wood storks versus more thermonuclear bombs! Knoll concludes:

What troubles me more than the attitude of people who prefer bombs and beef to birds is the indifference of those of us who know better.

"It's too bad about the birds," we say. "Too bad there's nothing to be done."

And in an appropriately birdlike manner, we bury our heads in the sand.

Ferrer would say that this indifference is a heritage from our grandfathers, and we all grew up with it. But our grandfathers, peace to their souls, had better reasons for their indifference than we do.

Yet there is surely something altogether wrong with a society which lets things go to the point where we are reduced to deciding between our freedom and way of life and the pretty little birds. Can *that* be our moral problem?

An argument at this level is itself a most peculiar symptom—one that calls for a kind of diagnosis we seldom get.

Jane Slaughter, on the *Progressive* staff, writes the concluding page of the March issue. She begins:

I used to believe everybody's daddy worked for Union Carbide. Mine did—he was a chemical engineer—and so did most of the daddies in our neighborhood.

It was a neighborhood of "Carbide housing." Carbide had paid to have some war workers' homes barged forty miles downriver and re-erected three miles from the company s factory in Institute, West Virginia, near Charleston. Carbide's young After we moved out of Carbide housing, I met girls whose fathers didn't work for Union Carbide. I felt sorry for them; they couldn't go to Cliffside or Carlisle, Carbide's summer camps, where a two-week stay cost only \$20 in the late 1950s.

I thought about my Carbide childhood when I heard early last December, that a cloud of poisonous MIC gas had killed 2,500 people who lived near a Carbide plant in Bhopal, India. The plant in Institute is the only other one that produces methyl isocyanate (MIC).

She quotes from people in Institute who declare their "faith" in Union Carbide. One of them said: "If you compare the lives lost due to the gas leak to lives lost due to starvation before the use of Sevin as an insecticide, Union Carbide looks like a hero. . . ." But she also quotes a man who says his lungs were burned by a gas emission from the Carbide plant—a mile from where he lived. "You will not," he said, "find people who work for the chemical company saying anything bad about the chemical industry. We will have to have a Bhopal here," he told me. "We will have to have a hundred to a thousand people die here. The chemical industry will be allowed to monitor itself until there is a disaster."

Well, who else is fit to monitor it? A government that refuses to take any significant steps to put an end to acid rain? Or do we want a society that will seem to be mostly policemen—good men, perhaps, but seldom half as smart as industrial chemists and lawyers and PR experts?

This seems a good place to quote some editorial comment from the February *Progressive*:

The main insecticide manufactured at the Bhopal plant, Sevin, was designed to replace DDT, the infamous spray that kills wildlife as well as insects. Sevin is less likely than DDT to enter the food chain because it breaks down faster. But because it is not persistent, Sevin must be applied often for maximum effectiveness.

What's more, Union Carbide could have produced Sevin without the toxic chemical methyl isocyanate, which poisoned Bhopal. The company only began using the substance in 1978 because it made for a more efficient process—and thus for more profits.

In the cases of DDT and Sevin, organic alternatives exist. The U.S. Government's own studies indicate that a system of insect control called Integrated Pest Management-combining various planting methods, trapping insects, and importing natural predators-can dramatically reduce pesticide Many farmers, including large-scale use. agribusiness, have found they can do without pesticides entirely. . . . Two weeks after the calamity at Bhopal, the United Nations voted 147-1 to continue publishing a directory of hazardous products. The United States dissented-on grounds that the listing "could unfairly discriminate against the export and sale of products of certain companies."

Well, as Marc Antony might now put it, "They are all *respectable* men." As for monitors . . .

What sort of education are we preparing for our grandchildren about such matters? Here we suggest a reading of Debra Dadd's *Nontoxic and Natural* (Tarcher, 1984), the story of what one person is able to do to avoid "hazardous products."