

ONE WORLD OR TWO?

THERE are now in print enough books and articles on the basic questions and issues of the time to supply material for outlining the movement of the modern mind enough to show, in psychological terms or circumstances, where it has been, where it seems to be going, and where it is right now. That is, it seems possible to make some broad generalizations to serve in this way, and worth attempting if it can be done without shutting anything important out.

Where, for example, have we been? For answer we go to a reflective review and evaluation of university education by Alexander Gerschenkron in the Spring (1976) *American Scholar*. This is a sage and friendly article about teaching. He compares American education favorably with the kind he experienced in Europe, then writes critically about the methods used in such places as the University of California in Berkeley and Harvard. He has taught (economics) at Harvard for the past thirty years. What he has to say is perhaps no more than common sense, the kind of insight one may acquire in a lifetime of teaching, yet because of the level of expression, a common sense that grips the reader's attention since it quite evidently applies to *everything*. His subject, his specialty, doesn't matter.

Now this, one could say, is itself of interest because it reveals something about the substance of knowledge. Real knowledge is somehow independent of time and circumstances, although both a particular time and concrete circumstances are needed to make the knowledge come alive. And when that sort of knowledge is applied to a familiar set of particulars, it seems free of the crimes and misdemeanors of "objective" description and devoid of the conceit of certainties which are by nature insupportable. What is said, in short, becomes objective and reliable because it

is wholly without pretense or ulterior intent. Here we shall quote Prof. Gerschenkron for the modest purpose of locating where we have been.

The first part of his article is devoted to description of what has constituted education in Europe for a century or so, perhaps longer. A vast collection of items—covered by language, literature, history, mathematics, and the sciences—are poured in over a period of eight years in the *gymnasium*. In the second four years the students do more intensively what they did in the first four. This seems incredible, yet it must be true since Prof. Gerschenkron went through it all himself. He is defining where we (America once had schools like that, and still has some) have been:

Yet all the students had to study during those eight years were eight textbooks the contents of which had to be memorized. In none of those textbooks, be it at a high or low level, was any historical problem ever mentioned. There was never any question of interpretation, and no texts of any great historian, or excerpts therefrom, were ever read. The endeavor was to transmit basic knowledge of facts, rather than promote judgment and understanding.

This was the principle followed. Distilled and simplified, it was that people knew and they told the young. Everything important to real learning was left out. In math they learned to work problems, "But what was not attempted at all was to explain to students what calculus was all about." No student was helped to appreciate the beauty of ancient languages; they mastered the syntax, nothing else. "The everyday life in ancient Rome was too low a subject to touch upon, and so the students never knew there were such things as the letters of Pliny the Younger or the treatises on life and work in agriculture."

The graduate entered the university, crammed with a great deal of dead knowledge as well-trained learner, but quite inarticulate orally, and without any

notion as to how one goes independently about acquiring knowledge. For the secondary school, reputedly preparing for the university, did absolutely nothing about teaching its students how to do research. A passive training yielded a passive, uncritical, and intellectually inert body of students.

While in America we have done better than this, according to Prof. Gerschenkron—his comparison is pretty encouraging—the fact remains that his account of education in Europe is handy for understanding where we have all been. We thought we knew.

Jump, now, to the controversy—Science versus the Humanities—between C. P. Snow and his critics. You scientists may know some useful things, Snow's humanist critics said, but for the management and true improvement of human life, what you know is largely irrelevant. Not the *spirit* of your attempts to know—which is a part of human excellence—but the assumptions and the body of what you have found out and put into "authoritative" books and into technical processes.

How shall we define this issue? We could say that it is an argument about whether there are two worlds or only one. Is there only one world, the world that is known by unambiguous, exact description, or is there another world, also, one which can be explored only with the help of metaphor, myth, and possibly mysticism and metaphysics—the world, as people say, of the Humanities?

The one-world champions have until recently been contemptuous of such suggestions. Your blueprints of another world, they said, when you have the temerity to offer them, can be shown to be either speculative inventions or romantic delusions; in any case irrelevant to what we are doing and what must be done. The trouble is, the oneworlders were often right in this criticism. Some accounts of the second world, especially the popular ones, have been very presumptuous, often tainted by pretense. Yet its vaguely looming, indefinable reality keeps asserting itself in the language of the imagination. Its cipher keeps on

invading the practical world through channels that have invisible openings in countless places. It does not enter with Euclidian propositions in hand, but *seeps* into human awareness as a powerful dissolver of unbelief. Lately some very good books have dealt with this phenomenon of general cultural awakening.

Meanwhile our big institutions—including the educational institutions—still operate on the basis of one world and its limited, finite logics. Decisions are still made to depend upon *counting*, which is the way the one-world experts gained their certainty. If you question counting, they look at you askance or aghast. How else can we be sure? they ask. Unless you can get them to look at things from another level, there's not much to say. But the argument about these things grows, and lately has become a virtual tumult. There is great verbal combat but no meeting of minds. And the problem of righteousness—always an issue in ex-Puritan America—enters in with a vengeance.

This, you could say, is where we are now. Time may be on the side of the two-world defenders—time and the subtler demands of ecological necessity—but institutions and past stabilities and confidences are all on the side of the single, scientifically knowable world.

In another *American Scholar* article (in the Summer issue), William Nichols, who could be called a two-world advocate although he does not use this language, discusses the matter of "manners" in debate. Curiously, the one-worlders are better behaved. They don't get mad. They are not anxious. They are patient and tolerant, showing the indifference to disagreement of strong thinkers who are totally convinced. Some day, they seem to be saying to themselves, these fantasizers will either wake up or go away. Meanwhile we must be polite and treat them kindly, even if we cannot take them seriously. After all, scientists are humane people. They believe in doing good.

Mr. Nichols is concerned about the nervy, anxious passion of the believers in two worlds. They have, he says, always been this way. He reviews the argument between Carlyle and Timothy Walker on the question, conducted in the serious journals of their day. It was begun in 1829 in the *Edinburgh Review* by Carlyle's essay, "Signs of the Times," with Walker's answering "Defence of the Mechanical Philosophy" appearing soon after in the *North American Review*. Commenting, Mr. Nichols says:

Walker seems coolly, systematically rational and Carlyle's voice, in contrast, sounds shrill and angry. Walker knows how to emphasize Carlyle's emotion-laden language, and there is a devastating paragraph in his "Defence" that brings together several of Carlyle's most strident charges against the mechanistic thinking of his time. Without doing great violence to the essential argument of "Signs of the Times," Walker's long paragraph so compresses Carlyle's attack on the mechanistic impulses of philosophical, economic, and scientific thought in the nineteenth century that Carlyle's anger sounds almost pathological.

A few lines of quotation from Walker's essay make the point:

On the whole, we have no wish to disguise the feeling of strong dissatisfaction, excited in us, by the article under consideration. We consider its tendency injurious, and its reasoning unsound. That it has some eloquent passages must be admitted, but . . . we hear distinguished philosophers spoken of as "logic-mills,"—the religion of the age as "a working for wages,"—our Bible societies as "supported by fomenting of vanities, by puffing, intrigue, and chicane,"—and all descriptions of men "from the cartwright up to the code-maker," as mere mechanists." . . .

Obviously, the man's a Red. No need to listen to him!

Well, because Carlyle saw so much and so clearly, we can't drop him the way Mr. Walker wants us to. He is something like Paracelsus, whose complete disgust with the medical idiocies of his times made him burn the books of Galen in the marketplace at Basle to show his disdain for academic airs and pretensions. But of course he

was not then appointed to the medical faculty of the university. Who could cope with or learn from a man like that!

Is there ever really a case for outraged, sweeping indignation? How *do* you wake people up? More Buddhists recently burned themselves in a marketplace in Saigon in a similar attempt. Was it "effective"?

Another question would be: How many unpopular causes can a serious reformer afford? If you are far ahead of your times, nearly everything is likely to seem wrong, misguided, childish or backward to you. Should you pick and choose in your criticism or simply indict all the world, as Carlyle seemed to do?

These questions are hard to answer, and sometimes such men do best by going their own way—following, you could say, their hearts, letting discretion go. Still, some hearts seem better instructed than others. Perhaps this inquiry is best ended simply by pointing out that Carlyle exercised enormous influence, whatever his manners, and that his ideas seem to be coming back into currency today. Somehow, more from a man like that gets through to us than what we learn from the temperate, patient souls. The most effective causes of a cultural quantum leap to insight remain obscure.

But in the matter of the "emotionalism" of such men, as contrasted with the cool rationalism of the well-established other side, perhaps this boil of feeling is built into the developmental process. You need it to discover the other world. This would not make emotionalism "right," only understandable. Its cause has to be brought under control. But deep feeling is absolutely indispensable to one who wants real knowledge.

Take an archetypal situation such as that portrayed in the *Bhagavad-Gita*. There the prince and hero, Arjuna, is emotionally upset. He has to go against the grain of the times; he must, Krishna tells him, challenge the wisdom and justice of tradition established in teachings of family

obligation. He must *break* with all these rules in behalf of a liberated conception of the meaning of his life. So Arjuna, having so many reflexes set in the opposite direction, is *depressed*. He moans. He complains. He grows petulant. He wants Krishna to *explain* things to him in a way that will make him feel good. At least twice in the Dialogue, Arjuna seems close to an emotional basket case.

What about his opponent? Over on the other side of the battlefield Duryodhana, the active king and establishment leader, is full of calm determination. He counts his forces and arranges the troops. Even though he has a suspicion, deep down, that his army is not sufficient, he doesn't let it show. And when he looks at all the illustrious warriors who support him it makes no sense to be upset.

The situation will change, of course. Eventually Arjuna will win. Historical change for the better does take place. A kind of right triumphs in the end. And then, as we know, a great many unimaginative people change sides without entirely knowing why, and this sets things up for a new establishment—a better one, we hope, but still an establishment. And after a while the whole process has to be gone through again.

There are times when a two-world advocate seems to combine vision with calm rationality—Emerson is an example; Emerson and a few sages of the past who talked mainly to their disciples—Plotinus, for one. But the practical reformers who insist that the world turn itself around and begin to do better usually have large psychological problems as a price of confronting the whole world. Only a Buddha seems able to achieve great changes while preserving an ineffable calm.

At the end of his paper—written to stress the need among advocates of the Humanities for combining balance and serenity with intensity of purpose—Mr. Nichols recalls the explanation of a common difficulty given by Lionel Trilling. In an address in 1972 Mr. Trilling brought the issue down to earth by noting the insecurity of the

humanist in the presence of advanced technical disciplines in mathematics and science which are really over his head. Notwithstanding his distrust of technique, he doesn't *know* these methods. Trilling said:

This exclusion of most of us from the mode of thought which is habitually said to be the characteristic achievement of the modern age is bound to be experienced as a wound given to our intellectual self-esteem. About this humiliation we all agree to be silent, but can we doubt that it has its consequences, that it introduces into the life of the mind a significant element of dubiety and alienation which must be taken into account in any estimate that is made of the present fortunes of mind?

The characteristic defense in such cases may be to say, "Those people have their equations, but I have my intuitions, and they are better than any old formula." But alas, the equations can be put on the blackboard and tested by other specialists, rejected or accepted, while intuitions are quite evidently something else. So two-world people, feeling morally right, grow shrill. If they don't know the scientific disciplines they may run and shout. Yet it must be admitted that the shrillness doesn't make them wrong. Shrillness may often be only an emotional safety valve for forlorn hopes and lonely causes. It is evidence of imperfection, not necessarily of error.

The emotional concomitants of such disputes will change, of course, as the sources of confidence wax and wane as the subjective weighting of inner and outer confirmations alters from decade to decade. As the conception of knowledge is revised, refined, or replaced. That we are now in the midst of such changes seems quite apparent.

There are, however, basic objections to setting up this two-cultures, two-worlds dispute as the ultimate philosophic argument. Another way of looking at both views would be as successive phases of a far-reaching growth process in which those who are most enlightened cope with the struggle of the two sides *within themselves*. Making the two outlooks one is the

objective. In science there are branches of activity in constant risk of "contamination" from the two-world view. These are, in varying degree, the life sciences, the social sciences, and the healing sciences. There is continuous pressure from "somewhere" to make the practice of these sciences holistic. No one can do much in the social sciences without taking into account the extraordinary influence on human behavior of the two-world outlook. As we said, it seeps in everywhere, sometimes in flooding tides. The best historians have pointed this out again and again. You can't deal intelligibly with such forces without granting their reality and wondering what they are, where they originate, and whether they are a fortuitous convergence or something that can be intelligibly accounted for. The same thing occurs in medicine, as is illustrated by a forerunner book, *Man the Unknown*, by Alexis Carrel. Present illustrations would be the recent works of Jonas Salk, illustrating a maturity of reflection hardly possible to Carrel. Lewis Thomas' *The Lives of a Cell* is another example.

Psychotherapy seems to be the area where the most conscious change is going on. A sick mind is disorder in the *essence* of the human, and if you don't understand the nature, quality, character of that essence, how can you practice therapy in its behalf? You can do it as an empiricist, of course, and have the gambler's occasional success, probably more by luck and love than by management. But experience in dealing with the disorders of the mind must inevitably lead, in the case of the most devoted and thoughtful of practitioners, to theoretical discoveries about mental and psychic health—discoveries in some sense philosophical. They turn on ordering ideas suggestive of another world, or even on some substantial aspect of the two-world idea. Sooner or later, materialists who start out as psychotherapists find themselves transformed into "idealists." (See Ira Progoff's *The Death and Rebirth of Psychology*.) Another important chapter in this saga of self-transformation through (or in) psychotherapy now comes in the form of a

new book, *On the Way to Self Knowledge* (Knopf, 1976, \$3.95), edited by Jacob Needleman and Dennis Lewis. The essays in this book, mostly by psychotherapists, combine the outlook of psychiatry or psychotherapy with the insights of Mahayana Buddhism, making the two approaches illuminate each other. The result is characterized by the serenity we spoke of earlier, and also a confidence based, not on knowledge, but on a sure sense of what is *not* and cannot be knowledge. This really clears the air. The book, however, requires some tenderness in the reader, since the contributors seem entirely without pretense. As yet we hardly recognize how precious and rare this quality is.

More than one of the therapists speak of the two sorts of patients they encounter—the ones who want simply to "get well" and "get along," and the ones who want to understand the meaning of their lives, as part of the meaning of life in general. It is here, in this area of inner search and longing, that therapy and religion conjoin.

Here, in this area, are brought together the relativism of the one who just wants to get well and the absolutism of the one who wants to know the truth. Here it becomes necessary to inquire whether just getting well nonetheless involves becoming aware of a corresponding or appropriate segment of universal meanings, and if knowing the whole truth requires dipping into the various finite segments of the world and finding out how the truth applies *there*. This sort of resolution seems a goal of the contributors to this book.

Implied is the proposition that you can know one world truly and thoroughly only by the light of the other, and that it works both ways. There are also both priorities and necessities. Achievement of a spiritual goal in the other world requires the practice of compassion in this one. But compassion here remains a stumbling affair without knowledge of both worlds. So the two are one.

REVIEW

SARTOR RESARTUS

BERNARD SHAW, as we recall, somewhere said that fifty years after he created his characters they appeared in life. This curious law of literary predestination may be illustrated by the "radical" psychiatrist, Ronald Laing, whose book, *The Facts of Life* (Pantheon, 1976), could easily give the reader the impression that Savage, the lonely resister of organized dehumanization in Aldous Huxley's *Brave New World*, has finally been born in a rebel psychiatrist. This is a side of Dr. Laing's book which received small attention in our earlier notice of it (June 30).

Looking back on his days in medical school, he recalls feelings which were much the same as those described in Abraham Maslow's report in *The Psychology of Science*. Maslow, too, felt the need to escape from the brutalizing tendency of a medical education deliberately disdainful of life and human feelings, so he became a psychologist instead of a doctor. Laing became a psychiatrist for the same reason: "When I was at medical school almost all my friends became psychiatrists, because it was the only bit of medicine we felt we could survive in, given the medico-surgical lunacy all around." Medical school introduced Maslow and Laing to the intentionally exaggerated symptoms of a very sick society, so they both decided to become healers of *medicine*, each in his own way. Laing tells his readers:

People who have never been through medical school themselves can't quite imagine what separates doctors from the rest of humanity. Exposure to this sort of stuff in practice is one of the things that definitely changes one over the years. In our physiology course, our first practical experiment was with frogs in a laboratory in which there were about fifty to sixty students arranged along the benches. Half that number of live frogs had been set out, and when our instructor gave us the word, we had to take up these live frogs by their feet, and holding them like that, smash their heads simultaneously on the edge of the lab benches. First we observed what that did to a frog. It's been killed, but it still twitches.

Then, following the lucid—but to young Laing heart-freezing instructions of William James (in his *Principles of Psychology*)—the students were made to learn all the twitching responses to stimulus a dead frog's body is capable of. Laing, a man of some imagination, had his own responses to this instruction. Commenting on James's meticulous description of the dead frog's behavior, Laing says:

And the same sort of thing in man. "Robin, on tickling the breast of a criminal an hour after decapitation, saw the arm and hand move towards the spot." . . .

I hope if someone wanted to get to know me he would not bash me on the head, cut my brain out of my head, take my head from my neck, cut my body in half, turn me upside down, burn me with acid, and torture the whole and all the bits with electricity and God knows what.

Is this the voice of sanity or just another anti-scientific eccentric sounding off? The trouble with Dr. Laing's sort of heresy is that it makes such complete common sense and is likely to infect other people. This, of course, is what he intends. He even wants to change the way people qualify to become doctors:

I suppose I was fortunate as a student in Glasgow to have as teachers a number of people who had established themselves competently in this tradition. If we suppose that we are bits of chemical matter of some kind, we've got to take that flesh and blood and those nerves, and all the rest of it, and simply do everything we can imagine to it and see how it responds. The idea is to take these bits of chemical stuff and torment and torture them in any way you like so long as you try to predict beforehand what will happen, on the basis of what has happened before. You hope to be able to predict what will happen if I do this on the basis of a hypothesis you've formed from what happened when you did that. If you're good at that and lucky, you may get a Nobel Prize. Sir Charles Sherrington put his stamp on the reflex arc, though he did not invent it, and the reflex arc is a figure indelibly printed on the mind of every medical student. And unless you have familiarized yourself with that kind of thing in biology and in physiology, anatomy, pathology, in clinical neurology, in neuro-psychiatry, you haven't a chance of becoming a doctor; you'd never pass the exams.

With research based so largely on torment, Dr. Laing wonders how the theories which result from this research, and the people "treated" according to the theory, can escape from its method and mood:

The theory conditions how we look at people, how we proceed with people, and how we think about and talk about them (us) among ourselves. The way people are "treated" is the outcome of that theoretical position which one has to not only internalize as input, but be fully fluent in as output. When we "apply" such theory to humans, we, at our gentlest, are led down the path of such procedures as "behavior modification." The point of therapy is to get behavior out of that sort of control (I should have thought), not to get it more efficiently technologically controlled.

There are lots of interesting case reports in this book, some of them of the same sort as that classic example of the misuse and defeat of a human being with which Dr. Laing begins his first, best-known, and possibly his best, book—*The Divided Self*. But there are also wonderful examples of the therapy of common sense, including some rather rough ones such as the following:

Dr. MacKenzie at Stobhill had a way with involuntary melancholics.

When one of these Lowlands Presbyterian sixty-year-olds came in lamenting his certain and justly preordained damnation for his unredeemable deadly sins, with wringing of hands, groaning, loss of appetite, engrossed in self-loathing at his own self-pity, constipated, having been brought into the hospital finally because no one could put up with him any longer, insufferable, his remedy was IOCC of turpentine injected into the buttocks. This produced a raging fever, hopefully sterile (sterile pyrexia), and swollen burning buttocks, exquisitely painful.

"We'll give him a taste of what he thinks is coming to him (hell fire as adumbrated by fever, torture by wracking pain, the delirium, etc.) and we'll see, when it dies down (after ten days), if he is not going to shut up and count his blessings."

Nobody had been heard to come back for more.

100 per cent remission rate. 100 per cent discharge rate. 0 per cent relapse rate.

No wonder the word "shaman" is coming back into respectable usage.

A not widely known book by Ortega, published by Norton in 1971, is *The Idea of Principle in Leibniz and the Evolution of Deductive Theory*. Ortega is regarded as a critic of science, yet he was a critic only of certain delusions about science. He was mainly concerned with distinguishing between what it can and cannot do. Ronald Laing, as a doctor who encounters in his practice and recognizes in life the distorting consequences of mechanistic assumption, makes one sort of criticism. He is profoundly aroused by the suffering he sees all about. Ortega's criticism, equally vigorous, attacks larger defects in thinking. In this book, which is about Leibniz in the same way that *Meditations on Quixote* is about Quixote—it barely mentions him—we have Ortega's mature explorations in thinking about thinking.

He early points out the severely limited correspondence between the world generated by scientific abstractions and the actual world of nature. He remarks that while a pencil drawing of a man is also a set of abstractions, the correspondence between the drawing and its model is in some sense continuous. Physical theory, he says, does not "have a similar relationship with reality, that is to say, that no proposition of physical theory corresponds with reality, nor does what is stated in physical propositions even 'resemble' something real."

The only contact between "physical theory" and reality is that the former permits us to predict certain real facts which are the experiments. According to this, modern physics does not, therefore, pretend to be the presence of reality in thought since thought, in "physical theory," does not pretend to be in a similar relationship with reality.

He illustrates this with a striking analogy:

When we leave overcoats in a theatre cloakroom, we are given numbered checks. A check does not look in the least like an overcoat but the series of overcoats corresponds to the series of checks, so that each specific check corresponds to a specific

overcoat. Imagine, then, that the cloakroom attendant has been blind from birth and can read the engraved numbers on the checks only by a sense of touch. He can distinguish between them or, what is the same thing, he knows them. When he touches a check and finds its number, he then runs over the series of coats and finds the coat which corresponds to the check, and this is possible despite the fact that he has never seen a coat. The physicist, then, is the blind cloakroom attendant in a material universe. Can one say that he *knows* the coats? Can one say that he *knows* reality? Even at the beginning of the century the physicists—Thompson, for example—were saying that the method of physics is limited to the construction of mechanical "models" which show us clearly the real process that manifests itself only confusedly in phenomena. In modern physics there is no room for models. What physics says, transcends all intuition and admits only of analytical algebraic representation. . . .

We find ourselves facing a form of knowledge totally different from that which this term signifies in its first spontaneous and full sense. Physicists themselves call this blind knowledge "symbolic knowledge" because instead of knowing the real thing, it recognizes its sign in a system of signs or symbols.

Philosophy, therefore, Ortega concludes, "ceases to look wall-eyed and with envy at the sciences." Yet in his *understanding* of the sciences one begins to recognize Ortega's great achievement in philosophy.

COMMENTARY

A CASE IN POINT

THE books of Ronald Laing (his latest has attention in Review) have made him a target for the sort of criticism William Nichols says is invited by humanists whose expressions are emotional and shrill. In a *Saturday Review* editorial (Feb. 21) Norman Cousins said that those who consult Dr. Laing's writings will find in the main "a highly subjective cry of pain about the world by someone who is himself a sufferer, rather than a searching examination of mental disease." And Geoffrey Gorer, reviewing *The Facts of Life* in the *Manchester Guardian Weekly* (Nov. 28), calls it "an extremely self-indulgent book." While Prof. Gorer notes that the "diatribe against the cruelty and insensitivity of 'official' medicine and psychiatry" is the most "solidly written" portion of the book, a useful review would at least attempt to measure the validity and importance of this "diatribe."

Neither Mr. Cousins' comment nor Prof. Gorer's observations are per se unjust. *The Facts of Life* is an uneven work—often freewheeling psychiatric impressionism likely to be upsetting to anyone who expects a doctor of the mind to chart for his readers an intelligible course in a frightening terrain. As Norman Cousins says: "To be told that the world is insane, not the schizophrenic individual, can hardly be considered useful advice for a parent, however striking and interesting Dr. Laing's personal theory may be philosophically."

But justice to Dr. Laing requires much more. His forceful and lucid questioning of the barriers to self-knowledge in the assumptions of contemporary science and his devastating indictment of medical education have independent value, not to be disposed of as either a "personal theory" or a "diatribe."

Moreover, Dr. Laing's condemnation of present-day medicine and its psychiatric branch represents a spirit which, when turned to the

mentally ill he encounters in his practice, has a very different result from the one implied. A reading of James S. Gordon's "Who Is Mad? Who Is Sane?" in the January 1971 *Atlantic* will make this clear.

CHILDREN

. . . and Ourselves

A LONG MOMENT OF HONESTY

THERE may be publications from departments of government in the United States which equal in excellence the material we have from the Canadian government but we have never come across them. The U.S. Government publishes so much that we leave finding out about the especially good things to chance or to the thoughtful reader who sends them along.

The Canadian Ministry of State for Urban Affairs recently issued a booklet (part of an "Urban Prospects" series) which seems so fundamental in its analysis that its contents and proposals ought to be part of any larger consideration of education, to say nothing of government. Ruben F. W. Nelson, who wrote *The Illusions of Urban Man* (published for the Ministry by Macmillan of Canada), attacks his subject at a level where there is hardly a difference between good government and good education: you could call it the level of *sine qua non*—without which there is nothing (of any importance).

He starts out by saying that those who think of themselves as managers, supervisors, directors, "authorities" of some sort, habitually give the impression of really knowing what they are about, of being optimistic and confident, when in fact they are uncertain, often afraid, and divided among themselves.

As he puts it:

No problem is too great for educated men (and now women) of good will, who are armed with all the facts, computers to manipulate them into alternative patterns, and the latest decision-making techniques of the Management Sciences. Further, our operating behavior assumes that there is no aspect of our experience that cannot be reduced to a management, and therefore manageable, problem. Life should be tidy, rational and surprise-free. Our challenge is to make it such. We have reason to be busy, but no reason to be afraid.

He says this, of course, only to take it all back:

Yet somehow the society and the lives we have created for ourselves are not convincing or deeply satisfying. So much that we struggled and paid for in order that life would be better has not fulfilled its promises or our expectations. All too often the fruits of our labours have not been good and pleasurable to behold, but bitter. Clearly, something has gone wrong. Even though this is not yet officially recognized and acted upon, more and more of us acknowledge it to be true. In moments of honesty, we find ourselves moving from a carefree anticipation of the future, through a vague concern, to anxiety, and finally to fear. What is more—and this we find even more difficult to acknowledge—we are being forced to recognize that in a society such as ours, this is a reasonable progression.

These are utterances seldom heard from the mouths of people in government or persons working for government. You may, if you are running for office, say something like this about your opponent, but hardly about yourself. Where, these days, do you find the voters putting into office a candidate who advertises his uncertainty? How much humility can he afford? One can of course imagine a time—perhaps not too far off—when admission of uncertainty will become a political virtue, but this will require quite a change in the temper of people at large—an emergence of practical wisdom, you could say. The impressive thing about this essay by Mr. Nelson is that what he has written for the Canadian government is obviously intended to hasten the coming of that time:

We like to think of ourselves as bright, well-trained, efficient, competent, as we set about fine-tuning the economy or an organizational machine, with our planning/programming/ budgeting systems, management by objectives, and operational performance management systems, our computer printouts, and our highly paid consultants. . . . In reality, we are closer to the Keystone Cops—confused and bewildered picking up after ourselves while running at breakneck speed. The marvel is that we are able to do this even while we fight off recognition that yet another event has happened for which we were unprepared, because we have no theory—no profound understanding.

Since Mr. Nelson's booklet has 70 pages, and since the best way to convey the quality of his essay—its depth and intent—is by quotation, we skip to the closing section which begins:

What, then, do we do? First, we need to be clear about the kind of world that will sustain human life. Second, we need to understand what we are up against, and therefore what we have to overcome. Third, we need some sense of how we can move from where we are—what things we can begin to do that might make a difference.

A program of this sort applies equally to individuals and groups, although with varying means to be developed. A little later Mr. Nelson says things like the following:

I am aware that it is frustrating, particularly for a culture which sees itself as pragmatic and action-oriented, to be told that the first thing we need to do is begin to understand deeply and powerfully the degree to which our present imaginations are misshapen and the process of that misshaping in all its subtlety and power. But such is our case. The temptation of Western man, and that surely includes Canadians, is that, in our desire to get on with doing, with building a better world, we do not begin to dream of the degree to which the commonly accepted rubrics on the basis of which we act both flow from and reinforce misunderstandings of life.

For some time to come, therefore, we will have a much richer sense of the things we ought not to do than what it is that will sustain life. At the very least, this implies a scepticism to the mechanically-minded among us, to those who still believe that if only we could get the productive capacity of this country back on track again, all would be well. Further, scepticism is justified to those advisors and would-be advisors who do not have a rich sense of the interrelationships between our intellects, our emotions, our moral courage or lack of it and what we do and the forms we make. So T-group trainers who would sensitize our emotions without reference to the intellectual and social structures which cause us to be emotionally crippled are no more satisfying than management consultants who would tidy our organizations and make them work without reference to the growing social confusion about, or to the particularity of pain within. Both are common; both are damaging.

We said that these counsels apply equally for individuals and groups, but we now must qualify:

what sort of group, and of what size, would be capable of assimilating the impact and indication of such ideas? Speaking, so to say, corporately and prophetically, Mr. Nelson says:

As the need to deal with fundamental issues becomes more obvious, the strong among us (government, industry and labour) will together settle our fate as they see fit. They alone will determine the fundamental shape of our future. The rest of us will accept the necessity of living in it. The only alternative is that each of us as persons and as members of a variety of communities learns in a more wide-eyed way to understand the environments in which we live and to act responsively within them. Granted, the latter will be less tidy than the former. It will also be more humane and life-giving.

It follows from this that we as a society should be supporting and encouraging those people who have the inclination and the ability to understand the foundations of our culture. This should be done within our present institutions as well as within new institutions established for this purpose. As noted earlier, neither mode of support is now common. Almost all of our major institutions are committed to extending the domain of the imagination which now dominates us. None have been dedicated to exploring and helping the rest of us to explore a genuinely alternative society—one founded on a fundamentally different image of man and the fulfillment of life. How many corporate and city planners raise foundational issues in a disciplined and sustained way as part of their normal responsibilities? But even if they did, we would still need to create a series of small institutes for foundational studies, both within and outside our present organizational forms.

Well, maybe so, but far more important, we think, would be to keep going currents of this kind of thinking, with or without "institutes." More ideas die in institutes than are born.

FRONTIERS A Model Bioshelter

To illustrate alternative energy production in practice, *Not Man Apart* for December 1976 featured a report on the dedication of the Ark installed by the new Alchemists on Prince Edward Island, a province of Canada in the Gulf of St. Lawrence. The Ark was designed to answer the question: Can there be an autonomous structure powered and heated primarily by the sun and the wind, to house and sustain a variety of basic human activities?

The initial answer seems to be yes. The Opening Day demonstration, attended by local officials, a thousand or so islanders, and the Canadian Prime Minister, Pierre Trudeau (the Canadian government financed the project and the province provided the 150-acre site), is described by the *Not Man Apart* writer, Conn Nugent:

The weather was cooperative. A 20-knot breeze kept the new "Hydrowind" windmill (the first of four) churning out enough electricity both for the Ark's operation and for a small contribution to the Prince Edward Island network. And a gray, apparently sunless sky provided a good lesson in solar heating. When Trudeau was being escorted around the Ark, New Alchemy's John Todd invited him to feel one of the water pipes. He did, and then recoiled a split second later from the intense heat. . . . The Ark was off and running.

Why Prince Edward Island for this demonstration? These are some of the reasons:

There's plenty of wind and good soil. And since Prince Edward Island has a population of only 112,000 and since there are virtually no island manufactures, energy demands are relatively low and chances are good that alternative technologies can make an impact in a short time. The islanders themselves are reasons for optimism. The island geography has spawned a thrifty culture of farming and craftsmanship, and its people are unusually friendly and open. The idea of tending the earth has a long tradition on the island, too; people there need little persuading that, in theory at least, wind and solar power make a lot of sense.

That frame of mind was reflected by the decision of provincial Premier Alex Campbell and his cabinet to refuse participation in a nuclear power scheme with neighboring New Brunswick. In doing so, the Prince Edward Island government became the first on this continent to rule out nuclear development. Thanks to a good supply of coal across the water in Nova Scotia, the New Alchemists think that the Hydro-wind system can demonstrate the feasibility of a wind-and-coal strategy for the island's near future with wind power doing most of the work by the turn of the century.

It seems worth mentioning that in a footnote in *The Living Soil* Lady Eve Balfour says that the Prince Edward Islanders ought to be added to her list of the five healthiest, most disease-free people in the world. (The five are the Hunzas, certain Chinese peasants, the Eskimos, the natives of Tristan da Cunha, and some American Indian tribes isolated from "civilization.")

In the *New Alchemists Journal* for 1976, John Todd calls the Prince Edward installation "an ark for living in addition to encompassing and integrating a living area, a laboratory, a production aquaculture system and a greenhouse under one roof." It collects, stores, and transforms energy for use, recycles its wastes, and maintains a comfortable climate for the residents as well as for the food production (greenhouse and fish farm) on the premises. John Todd also says:

Ultimately, when the biological components are fully developed, it is our intention that the Prince Edward Island ark be productive enough to generate sufficient income to provide its residents with a new economic base. Such structures might conceivably initiate new concepts of household economics, income and self-sufficiency. Another factor underlying the ark concept was that once it was built it would not impinge heavily on the external world, by polluting neighboring ecosystems, consuming scarce and expensive fuels or utilizing nuclear power. Rather than stimulate growth in energy needs, arks might lead to conserver concepts as yet only dimly foreseen.

The ark, although it looks and is built much like a modern house [plans and renderings are available in poster form], is in many ways its antithesis. Whereas houses draw heavily on power grids and

expensive fuels at the same time polluting lakes, rivers and watertables with their wastes, ark structures which are integrated with and dependent upon living systems should have the opposite effect, teaching us how the world works. Their inhabitants conceivably might become better stewards of the earth. With its internal spaces modelled after the workings of nature, the ark for Prince Edward Island may give us a glimpse of one possibility for the future.

Some indication of such possibilities is provided in another of Todd's articles, "The World in Miniature." He says:

A visionary landscape is possible. On theoretical grounds I would argue that we could generate new agricultures which would be mirror images of nature and that these agricultures would not be cancerous but legacies for the living world. It is in the restoration of nature that we will decode the truly creative forces for the future. One of the major intellectual and actual missions of New Alchemy is the search for ways to replace the engines and hardware of twentieth-century technology with knowledge from nature which when linked to a gentle and appropriate technology can sustain human communities. We are interested in re-integrating existing knowledge to create new wholes which on a smaller scale will begin to mend both lands and peoples. It is just possible that through such activities a transformation of place and consciousness may ensue and that there may be a rebirth of all that is good on the mantle of the earth. . . .

If the subjugation of humans by humans and the rise of warring states has been linked closely with agriculture, the path away may also lie within our reach, through the realization that the future must become a part of us by our very act. That will make the critical difference. Humble things like planting trees in vacant lots become as important as anything. A little garden in a box on an apartment ledge becomes an affirmation of the emerging power, a symbolic and actual measure of change.

The Prince Edward Ark, built as a government demonstration project, cost a lot of money. The New Alchemists are also erecting on Cape Cod a smaller ark which is more within reach of the average person. For information about this ark and other developments such as solar heating devices, windmills, fish farms and

greenhouses, write to the New Alchemy Institute, P.O. Box 432, Woods Hole, Mass. 02543.