

THE PROBLEM IS SET

WHAT is a university? Ideally it is a place where you go to find out what the most thoughtful men and women of a given time believe that human beings know. But actually, in the opinion of some of those thoughtful individuals, the university has become something of a fraud. Ortega suggested this nearly fifty years ago, and in 1972 William Irwin Thompson told a *Time* (Aug. 21) interviewer:

The universities are no longer on the frontiers of knowledge. A lot of students are leaving, professors are leaving. The universities won't die or disappear, but they'll lose their charisma and their imaginative capacity to innovate, which means that they will become the kind of places where you learn the past. . .

Earlier, in an address before educators in 1966, William Arrowsmith gave a basic reason for this decline:

Teaching, I repeat, is not honored among us either because its function is grossly misconceived or its cultural value not understood. The reason is the overwhelming positivism of our technocratic society and the arrogance of scholarship. Behind the disregard of the teacher lies the transparent sickness of the humanities in the university and in American life generally. Indeed, nothing more vividly illustrates the myopia of academic humanism than its failure to realize that the fate of any true culture is revealed in the value it sets upon the teacher and the way it defines him. "*The advancement of learning at the expense of man,*" writes Nietzsche, "is the most pernicious thing in the world." . . .

It is my hope that education . . . will not be driven from the university by the knowledge-technicians. . . . Socrates took to the streets, but so does every demagogue or fraud. By virtue of its traditions and pretensions the university is I believe, a not inappropriate place for education to occur. But we will not transform the university milieu nor create teachers by the meretricious device of offering prizes or bribes or "teaching sabbaticals" or building a favorable "image." At present the universities are as uncongenial to teaching as the Mohave desert to a

clutch of Druid priests. If you want to restore a Druid priesthood, you cannot do it by offering prizes for Druid-of-the-year. If you want Druids, you must grow forests. There is no other way of setting about it.

Spelling out this indictment in all its depressing detail can be left to others. There is no paucity of material and no issue more worked over by cultural iconoclasts. Instead, let us note that often the most effective critics are sheltered by universities. Prof. Arrowsmith would like to see them improved, but hardly knows how to begin, since the momentum of virtually all the larger institutions is in the opposite direction. Academic customs and vanities are stacked against constructive change. Authentic intervention gains little support.

Happily, there is another way of looking at these things. There are *people*, not places, who embody the ideal of the university. Someone who cherishes this ideal might have the daring to compile a list of such individuals but would then have to spend a great deal of time arguing with others who have made different lists. But this, of course, is what criticism is for. In a time when institutions are becoming less and less important, turning into barriers instead of avenues to worthwhile learning, critics become useful sources of guidance on where to go to gain knowledge, which means whom to study with, what to read. They also help to show which modern Socrates out on the streets—where are all the promoters and pretenders, too—may be worth listening to.

One could argue that, far from being deplorable, this situation is entirely normal during a period of great change. The decline of institutions means the weakening and finally the collapse of authority. It means that people can no longer rely on the signs the culture puts up to tell them where to go to get what they need. The

needs themselves are subject to challenge and debate. For this, during change, people have to fall back on their own resources, which is both frightening and painful, although a few find it exciting and attractive. These few are the people who create culture, yet are not bound by it. For them institutions do not become havens, but platforms or tools. When the tools grow dull, if they can't sharpen them they find better tools elsewhere, or invent them. A century or more may pass before the new and better tools ripen into better institutions.

What is a good institution? Some may say, looking around, that there is no such thing. But because of the fact that some people are wiser, more thoughtful, more understanding of the human situation than others, institutions are formed. Institutions are meant to be locations of the wise. But then, after a time, the form shuts out the spirit and the wise have to begin all over again. If we knew how to create self-regenerating institutions, most of our troubles would probably disappear.

But we know what self-regeneration means and it is possible to identify individual minds that practice it. Taken together, the work of these minds represents a nonphysical institution, an institution made of the stuff of thought—freed from the confinements of buildings, budgets, and beliefs. Good criticism is the means of finding an entry to this transcendental institution. One cannot be entirely sure, of course, and this uncertainty is an essential part of participating in the work of the institution.

Ultimately, then, every human must devise his own university and accept responsibility for both its excellences and its shortcomings. Those who see this and set to work at the project may not be numerous, but if everyone able to attempt it gets busy, then the educational institutions of the land where they live will get better and better. The spirit of self-regeneration will seep into all those places. They will become more like tools.

Well, we have our list of people who are doing this work. They are all, in one way or another, natural dissenters. But they are dissenters in the Platonic sense, as explained by A. E. Taylor: "Plato has been called, with some truth, the father of all heresies in religion and science; he has been, in the same degree, a fountain of all that is most living in all the orthodoxies." Somehow or other, they are dissenters who combine revolution with conservation, Dionysian adventure with Apollonian calm. They are always somewhat out of familiar place and elude classification.

In the *Teachers College Record* (Columbia) for February of this year Huston Smith examines the consequences for education of the "overwhelming positivism of our technocratic society." His title "Excluded Knowledge: A Critique of the Modern Western Mind Set." His point is that the scientific method closes out inquiry into the meaning of our lives. A lot of people are saying this, but his article is valuable because he goes on to suggest what may or should be done about it. We can't abandon science but we can change it by changing its methodological assumptions. Prof. Smith tells how the present assumptions were established:

For science to get down to work seriously, Aristotle's final causes had to be banished and the field left free for explanations in terms of efficient causes only. "The cornerstone of scientific method is . . . the *systematic* denial that 'true' knowledge can be got at by interpreting phenomena in terms of final causes—that is to say, of 'purpose'." (Jacques Monod.)

Science itself is meaningful throughout, but there are two kinds of meaning it cannot get at. One of these is global meanings—what is the meaning of it *all*? It is as if the scientist were inside a large plastic balloon, he can shine his torch anywhere on the balloon's interior but cannot climb outside the balloon to view it as a whole, see where it is situated, or determine why it was fabricated. The other kind of meaning science cannot handle is existential: It is powerless to force the human mind to find its discoveries involving. Let the discovery be as impressive as you please; the knower always has the option to shrug his shoulders and walk away. Having

no handle on meanings of these two specific kinds, science "fails in the face of all ultimate questions" (Jaspers) and leaves "the problems of life . . . completely untouched" (Wittgenstein) .

Well, if the scientific approach to knowledge leaves out the very things we care about most, why has practically every branch of modern knowledge submitted to its claims? Why don't we just *change* our idea of knowledge? It seems ridiculous to go on as we are, suffocating serious inquiry about the meaning of our lives because meaning is not and cannot be made "objective"! Prof. Smith has an answer:

This account of what science cannot deal with is certain to encounter resistance. Not, so far as I have been able to discover, because it is untrue. All that would be required to show that it is untrue would be a counter-example—a single instance in which science has produced precise and provable knowledge concerning a normative value, a final cause, an existential or global meaning, or an intrinsic quality. Considering the importance of these four domains for human life—for three hundred years mankind has all but held its breath waiting for science to close in on them—the fact that it has made no inroads whatever would seem to be a clear sign that science is not fashioned to deal with them. The reason we resist science's limitations is not factual but psychological—we don't *want* to face up to them. For science is what the modern world believes in. It having authored our world, to lose faith in it, as to some extent we must if we admit that its competence is limited, is to lose faith in our kind of world.

That is exactly what is happening now. We are losing our faith in our kind of world. It isn't working well any more, and threatens to break down in a number of places. And the problems, as so many declare, are *not* technical. They are moral or social or ethical and do not respond to technical remedies. The true remedies lie in the area we have neglected for three hundred years. Well, if we see this, and also see the value in the rigor of the scientific spirit, is there some way to get better acquainted with the region of human meanings, a way that won't also expose us to the sloppy guesswork of dreamers or the plausible deceptions of spiritual demagogues? Such threats are already in evidence, and the vulnerability of

uninstructed people filled with extravagant longing was made clear by the slaughter at Guyana.

We could say that we need to develop some science on the basis of which people will find it natural to act as humans, not only as specialists. But this sort of science would not be a sure thing, not at all like the science we have learned to accept. The trouble is, the science we are used to has become an instrument of self-destruction. We don't know how to control it. It does all the controlling. The technological institutions made possible by science have become self-guided by technical imperatives, and people have come to think that their lives and future depend upon meeting those requirements.

Prof. Smith has only a spartan remedy for this situation, but there may be no other. He says:

Obviously science will change in many respects; the question is: Will its changes be of the sort that enable it to deal with the values, purposes, meanings, and qualities it has thus far neglected? (The change from classical to relativity physics was momentous, but it changed nothing in physics' stance toward the four lacunae I keep citing.) If science is to deal with these lacunae, it will have to relax the demands for objectivity, prediction, control, and number that have excluded it from qualitative domains while producing its power in quantitative ones. We are free, of course, to turn science in this new direction, a direction that is actually old in that it points back to the pre-seventeenth century, partly alchemical notion of what science should be. What we must realize is that every step taken toward humanizing science in the sense of moving it into the four fields it has thus far ignored will be a step away from its effectiveness in the sense of its power-to-control. For it is precisely from the narrowness of its approach that the power of modern science derives. An effective and restricted science or one that is ample but does not enable us to control the course of events much more than do art, religion, or psychotherapy—we can of course define the word as we wish. What is not possible is to have it both ways.

Prof. Smith, you could say, is pursuing historical psychoanalysis, suggesting that if we reduce science to a scale that does not control, but becomes the willing tool of moral men, and if we

add a disciplined subjectivity to our thinking about the uses of our tools, then we shall have a science we can live with and survive by, perhaps quite comfortably, or even convivially. Interestingly, this contention fits perfectly with all that E. F. Schumacher says about the virtues of intermediate technology, which is science under the control of our human sense of meaning. It seems plain from Schumacher's analysis of present economic forces that we are being driven by a complex of causes—shortages, pollution, unmanageable size—to *restrict* our technology to make it responsive to the rule of human values.

It happens—naturally enough—that Schumacher has done precisely the sort of thinking that *restricted* science would make possible and require. Other people do this thinking, but Schumacher did it consciously, making him able to say how it works. In his Preface to Goldian VandenBroeck's *Less Is More* (Harper) he explains the difference between what he calls "straight-line logic or mathematics" and "*curved* logic." *Life*, he says, "disconcertingly and reassuringly, is bigger than straight-line logic; it conforms with a kind of *curved* logic which turns things around and often, before you become aware of it, turns them into their opposites."

As an economist, I was lucky enough to learn this many years ago. (It did not seem luck at the time, as most people thought I had gone crazy!) I learned this:

Impermanent are all created things, but some are less impermanent than others. Any system of thought that *recognizes no limits* can manifest itself only in extremely impermanent creations. This is the great charge to be laid against Materialism and its offering, modern economics, that they *recognize no limits* and, in addition, would be incapable of observing them if they did. Self-imposed limits, voluntary restraint, conscious limitation—these are the life-giving and life-preserving forces. . . . Logic does not do much for our personal and suprapersonal relationships. But it is, all the same, an indispensable tool for our *material* relations—how to keep the wolf from the door and how to gain a modicum of material security in this uncertain world.

So there is, unquestionably, *straight-line logic*, which we need for living. But there is also a kind of curved logic—whereby things require "measure," or they turn into their opposites to make the living worthwhile.

In *A Guide for the Perplexed* Schumacher illustrated the use of the two kinds of logic in terms of everyday problems we have to solve or try to solve. Thus there are two kinds of problems—convergent and divergent problems. Convergent problems are the kind we can solve with straight-line logic. You isolate the factors that are involved and then put them together in the right way. We know how to make cars and build bridges and design airplanes. We have learned how to do this very well. Of convergent problems Schumacher says:

Once the answer has been found, the problem ceases to be interesting:

A solved problem is a dead problem. To make use of the solution does not require any higher faculties or abilities—the challenge is gone, the work is done. Whoever makes use of the solution can remain relatively passive; he is a recipient, getting something for nothing, as it were. Convergent problems relate to the *dead* aspect of the universe, where manipulation can proceed without let or hindrance and where man can make himself "master or possessor," because the subtle, higher forces—which we have labeled life, consciousness, and self-awareness—are not present to complicate matters. Wherever these higher forces intervene to a significant extent, the problem ceases to be convergent. We can say, therefore, that *convergence* may be expected with regard to any problem which does not involve life, consciousness, self-awareness, which means the fields of physics, chemistry, astronomy, and also in abstract spheres like geometry and mathematics, or games like chess.

We get confused about all this for the reason that human beings, while they may be famous for ingenious solutions of convergent problems, have all those higher qualities and doubtless get personal inspiration and some guidance from them. They have these qualities, just as there are wise men working in universities. The point is that in the *system* of assumptions, method, and identification of "reality" which the scientists use,

the higher qualities have neither recognition nor place. The two logics don't ever get together in the system, only in humans. The system is the application of a theory which rules collaboration out. (But scientists write poetry and Einstein was a pacifist.) Schumacher goes on:

I have said that to solve a problem is to kill it. There is nothing wrong with killing a convergent problem, for it relates to what remains after life, consciousness, and self-awareness have already been eliminated. But can—or should—divergent problems be killed? (The words "final solution" still have a terrible ring in the ears of my generation.)

Divergent problems cannot be killed; they cannot be solved in the sense of establishing a "correct formula"; they can, however, be transcended. A pair of opposites—like freedom and order—are opposites at the level of ordinary life, but they cease to be opposites at the higher level, the really human level, where self-awareness plays its proper role. It is then that such higher forces as love, and compassion, understanding and empathy, become available, not simply as occasional impulses (which they are at the lower level) but as regular and reliable resource.

This seems a very good account of the sort of science Huston Smith wants to come into being. What stands in the way? Schumacher says:

Divergent problems offend the logical mind, which wishes to remove tension by coming down on one side or the other, but they provoke, stimulate, and sharpen the higher human faculties, without which man is nothing but a clever animal. A refusal to accept the divergency of divergent problems causes these higher faculties to remain dormant and to wither away, and when this happens, the "clever animal" is more likely than not to destroy itself.

Man's life can thus be seen and understood as a succession of divergent problems which must inevitably be encountered and have to be coped with in some way. They are refractory to mere logic and discursive reason, and constitute, so to speak, a strain-and-stretch apparatus to develop the whole man, and that means to develop man's supralogical faculties. All traditional cultures have seen life as a school and have recognized, in one way or another, the essentiality of this teaching force.

This is the sense in which "tradition" is the most valuable of our inheritances. Huston Smith

singles it out for honorable mention in his paper, and A. E. Taylor had it in mind when speaking of "all that is most living in [our] orthodoxies." But how to keep this living part of tradition alive seems to be the great secret that cannot be transmitted by tradition. Well, we are at least learning how to set the problem.

REVIEW

THE NEARINGS IN MAINE

SCOTT NEARING has become a living legend, an achievement but rarely duplicated from century to century. He is also a magnificent example of what a single human being can do in spite of very great obstacles, obstacles ranged against him because of what he set out to do. In the Preface to his autobiography, *The Making of a Radical* (Harper & Row, 1979), Nearing quotes from Olive Schreiner the principle on which he founded his life:

"I think it is well to resolve in one's early youth that no good shall ever be good to one which is bought at the smallest price of one's intellectual integrity. The men who hold by this can never be entirely successful in their generation . . . but one never regrets having stood alone."

Excluded from the academic career of an economist—for which he had prepared first as student, then as teacher, at the Wharton School—because of his militant socialism and pacifism, Nearing supported himself by writing books and freelance teaching until the early 1930s. Then he decided to become a homesteader. He was nearly fifty years old when he bought a rundown hill farm in Vermont in 1939, and with Helen, his second wife, a violinist who had similar ideals, began his career on the land. The ingredients of the legend were all there, but it grew from what Scott and Helen did with that farm, and with the one they have now, in Maine.

Today, at ninety-five, Scott Nearing is still farming, still writing books which tell the story of how he and Helen live their life on the land. In their just published volume, *Continuing the Good Life* (sequel to *Living the Good Life*, which came out in (1954), Scott says that Helen did half the work, and this applies not only to writing but also to life on the farm. (She, being only seventy-five, is a mere slip of a girl compared to Scott.) Too many tourists, too much maple sugar business (*The Maple Sugar Book* by Scott and Helen has a minor fame), and the depredations of a paper

company after trees caused the Nearings to leave Vermont. They found another place in Harborside, Maine, where they started with another rundown farm, restoring and developing the land and building another stone dwelling.

Continuing the Good Life (Schocken, \$9.95) is mainly about what goes on at the Harborside farm where they have lived and worked for the past twenty-five years. The book is both a chronicle and a manual on gardening, composting, pond and dam building, and the arts of the homesteader generally. Scott Nearing is a systematic man who carefully figures out the best way to do things for the ends he has in view. He wanted to live a self-reliant, autonomous life. Given his abilities and resources, a New England homestead was the answer.

How does it work? He says in another of his books:

Homesteading is based on the production of goods and services which are consumed directly, without the intervention of the market. In our case we raised food and ate it, cut fuel and burned it, constructed buildings and lived in them, thus eliminating the major cash cost of living.

About three-quarters of our income was the immediate result of our own productive efforts. That meant that for each four dollars worth of goods we consumed, only one dollar's worth needed to be bought. The other three dollars' worth came to us directly on a use basis. By this means we freed ourselves largely from direct dependence upon the price-profit economy.

We bartered part of our crop for the surpluses of other primary producers of fruits, nuts, oils, thus bypassing the commodity market with its heavy overhead costs. We bought only for cash, we never borrowed. If we did not have the money, we did without. Thus we freed ourselves from interest slavery, which is one of the heaviest economic burdens of many primary producers.

We made a consistent effort in our neighborhood to subordinate the acquisitive urge and to practice mutual aid. Our tools and products and physical help were always freely offered to any in need. We in return received much help from our neighbors.

Scott Nearing is an articulate man with an orderly mind who discusses the growing of beans with as much precision as, on other occasions, he investigates Dollar Diplomacy—which happens to be the title of the first book by him (and Joseph Freeman) we acquired. After reading anything by Scott Nearing—and now Helen and Scott—you want to read more. They write of many things, and they make deliberate decisions as if they had before them Kant's categorical imperative as their guiding light. The result is that what they write has the dignity of its intentions and at the same time the simplicity of people who have learned from necessity to go directly to the point. That is why the Nearings have become a legend.

Today the thoughtful members of the younger generation are discovering that the Nearings have given fifty years to working out the means and ends of one kind of good human life—the kind that more and more people are now longing for. Their how-to books are not just how-to books, they have a transcendental dimension which readers sense within the down-to-earth contents. This combination of the visionary with the practical, the moral with the imaginative, the Spartan with the Athenian, the close-to-the-soil Yankee with citizenship in the whole world—how could it fail to achieve legendary significance?

What do the Nearings sound like? Here is a brief passage on greenhouses which comes at the end of a short chapter on winter gardening—during the three months when practically everything gets frozen solid in northern New England:

For those who have the money and the facilities, the possibility of gardening in heated greenhouses is always present and can be carried forward as long as the electric power is on. Here we are concerning ourselves with fall and winter gardening in solar-heated greenhouses. We are among those homesteaders and small-scale gardeners who prefer to have sun-heated greenhouses to collaborate with Mother Nature, rather than having to deal with the electric and fossil fuel companies.

Here is another passage mixing hard common sense with deliberated idealism, which support each other:

Homesteaders in the United States, as elsewhere, need a cash crop. Scrimp and manage as they will, they cannot live in the midst of a money economy without using some cash money, if only for the purchase of postage stamps.

We produce 85 per cent of our food and all of our fuel, except gasoline for the car. We must pay cash for spare parts, replacements, hardware. We pay our rent when we pay our local taxes. Some of our clothes we make, some we buy in thrift shops and at rummage sales; a few clothes we buy new. We use and buy no habit-forming drugs, including alcohol, tobacco and caffeine. Our supply of printed matter, postage and stationery comes to us via our Social Science Institute, to which organization we hand over all royalties and lecture fees. Our travel expenses are paid by those who ask us to talk.

While the Nearings were living in Vermont, they had hundreds of visitors. These grew to thousands in Maine, and while in principle the Nearings welcomed people who wanted to learn about homesteading, some regulation became necessary. So they put the visitors to work. The flow of undiscouraged questioners continued so they put up cabins on some neighboring land and used this friendly volunteer labor to build needed roads, with vegetarian lunch for everyone. The chapter on visitors and helpers concludes:

This brief review of our experience with two generations of helpers and associates during the last few years hardly does justice to what is really a period of transition and transformation. Changes are taking place, deeply affecting the young, and we, with our lives almost over—observe them with mixed feelings. We believe the groundbreaking work we have done with our own homesteading and the missionary end of it in letting people come and observe has been worth while through the years. We would like to continue to have interested visitors drop by. We are glad to have willing helpers when they want to assist in any of our projects.

Eventually the time came when they had to restrict visitation hours, and then have visitors only by appointment. The Nearings needed to get their work done and go on with their writing.

Meanwhile, their health continues good. They have no family doctor, and haven't had one since moving to Vermont back in 1932. They are, as they say, "chronically well." From the last chapter:

Like multitudes of people all over the world, we are seeking a good life—a simple, balanced, satisfying life style. Like them, our aim is to lend a hand in shaping the planet into a homelike living place for successive generations of human beings and for the many other life forms domiciled in and on Mother Earth, her lands and waters.

Immediate needs for a good life are food and shelter, as a basis for survival. Beyond these basic necessities are amenities like education, recreation and travel, which make life more satisfying and rewarding for individuals and small local groups such as families and other collectives.

We begin our listing of good life attributes with our four-four-four formula: four hours of bread labor, four hours of professional activity; and four hours dedicated to fulfilling our obligations and responsibilities as members of the human race and as participants in various local, regional, national and world civic activities.

The best thing about the way the Nearings live their life may be their showing that it can be done.

COMMENTARY
"SILENT SOCIAL REVOLUTION"

INTERESTINGLY, several of the persons named or quoted in this issue would by Gandhian standards (see "Children") qualify as well-educated humans. The qualities Gandhi sought are certainly present in the Nearings (see Review) and in the Marshes (see Frontiers), not to mention Berry and Schumacher! The crafts and the arts of husbandry and life on the land are the foundation of their lives, from which their work as thinkers and writers obtains its symmetry and harmonizing purpose.

The crafts, for Gandhi, were no decorative attainment, nor was their economic value the chief reason for education in such skills. They were the means to what we now speak of as "holistic" culture. He said:

What I want is that the whole education should be imparted through some handicraft or industry. It might be objected that in the middle ages only handicrafts were taught to students; but the occupational training, then, was far from seeing an educational purpose. The crafts were taught only for the sake of the crafts, without any attempt to develop the intellect as well. . . . those born to certain professions had forgotten them, had taken to clerical careers and were lost to the countryside. The remedy lies in imparting the whole art and science of a craft through practical training and there through imparting the whole education.

Gandhi's discussion of education for city children envisions a goal often spoken of today:

What kinds of vocations are the fittest for being taught to children in urban schools? There is no hard and fast rule about it. But my reply is clear. I want to resuscitate the villages of India. Today our villages have become a mere appendage to the cities. They exist, as it were, to be exploited by the latter and depend upon the latter's sufferance. This is unnatural. . . . And if the city children are to play their part in this great and noble work of social reconstruction, the vocations through which they are to achieve their education ought to be directly related to the requirements of the villages. So far as I can see, the various processes of cotton manufacture from

ginning and cleaning of cotton to the spinning of yarn, answer this test as nothing else does. . . .

My plan to impart primary education through the medium of village handicrafts like spinning and carding, etc., is thus conceived as the spearhead of a silent social revolution fraught with the most far-reaching social consequences.

These quotations from Gandhi are taken from *Selections from Gandhi*, edited by Nirmal Kumar Bose, and published by the Navajivan Publishing House, Ahmedabad, India.

CHILDREN ... and Ourselves GANDHIAN EDUCATION

[Here we avail ourselves of some of the quotations from Mohandas K. Gandhi on education and the teaching of children, gathered together in the April, 1979 issue of *Gandhi Vigyan*, a quarterly edited by K. S. Acharlu and published by the Academy of Gandhian Studies, 2-2-113/5/5, New Nallakunta, Hyderabad 500 044, India. Subscription \$4 a year.]

EVERY house in the land is a school and the parents are teachers. But the parents, ceasing to teach, have betrayed their sacred trust. There is no alternative save to send our boys to schools. But if the child has to go to a school we must see that it looks like a home to him and the teacher like parents, and the education provided should be such as would be provided in a cultured home. This means that all preliminary teaching should be oral. A child educated in this way would learn in a year ten times more than the boy taught in the other way, i.e., through the alphabet.

My confirmed opinion is that the commencement of training by teaching the alphabet and reading and writing hampers their intellectual growth. I would not teach them the alphabet till they have an elementary knowledge of history, geography, mental arithmetic and the art (say) of spinning. Through these three I would develop their intelligence.

I may be asked how intelligence could be developed through the takli or the spinning wheel.

It can be to a marvelous degree if it is not taught merely mechanically. When you tell a child the reason for each process, when you explain the mechanism of the takli or wheel, when you give him the history of cotton and its connection with civilization itself, and take him to the village field where it is grown, and teach him how to count the rounds he spins and the method of finding evenness and strength of his yarn, you hold his interest and simultaneously train his hands, his eyes and his mind. I should give six months to this preliminary

training. The child is probably now ready to learn the alphabet, and when he is able to do so rapidly, he is ready to learn simple drawing, and when he has learnt to draw geometrical figures and the figures of birds, etc., he will draw the figures of the alphabet. I consider writing as a fine art. We kill it by imposing the alphabet on little children and making it the beginning of learning.

It is a delusion to believe the forcible filling of the students' minds with things which have no use in life makes for the development of their intelligence. It might be intellectual indulgence but not intellectual development. But where a boy or girl has to do some kind of manual work and it is taught to him not mechanically but scientifically, his intellect develops of itself; the child is awakened to a consciousness of his powers, he learns self-respect and becomes self-reliant.

Our education has got to be revolutionised. The brain must be educated through the hand. If I were a poet, I could write poetry on the possibilities of the five fingers. Why should you think that the mind is everything and the hands and feet nothing? Those who do not train their hands, who go through the ordinary rut of education, lack "music" in their life. All their faculties are not trained. Mere book knowledge does not interest the child so as to hold his attention fully. The brain gets weary of mere words and the child's mind begins to wander. The hand does the things it ought not to do, the eye sees the things it ought not to see, the ear hears the things it ought not to hear, and they do not do, see or hear, respectively, what they ought to. They are not taught to make the right choice and so their education often proves their ruin.

The boy under my scheme of Education does not go to school merely to learn a craft. He goes there to receive his Primary Education, to train his mind through the craft. I claim that the boy who has gone through the new course of Primary Education will make a better man than the one who has gone through the seven years of ordinary schooling. The new education is not a little of literary education and a little of craft. It is full education up to the primary stage through the medium of a craft. The eyes, the ears and the tongue come before the hand. Reading

comes before writing and drawing before tracing the letters of the alphabet. If this natural method is followed the understanding of the children will have much better opportunity of development than when it is under check by beginning the children's training with the alphabet.

If the school had done its duty by them, boys of 14 should be truthful, pure and healthy. They should be village-minded. Their brains and hands should have been equally developed. Then would there be no guile in them. Their intelligence would be keen but they would not be worried about earning money. They would be able to turn their hand to any honest task that comes their way. They would not want to go into the cities. Having learnt the lessons of cooperation and service in the school, they would inject their surroundings with the same spirit. They would never be beggars or parasites.

Music should form part of the syllabus of primary education. The modulation of the voice is as necessary as the training of the hand. Physical drill, handicrafts, drawing and music should go hand in hand in order to draw the best out of the boys and girls. One has only to visit any primary school to have a striking demonstration of slovenliness, disorderliness and discordant speech. My plan for Primary Education certainly comprises these things which easily become possible the moment you remove from the children's shoulders the burden of having to master a difficult foreign language.

Education does not mean simply the knowledge of letters—the capacity to read and write. The knowledge of letters is only one of the means to education. Really speaking, education consists in learning to use in the right way all one's sense organs including the mind. The child should know how to use his organs of action such as hands and feet, etc., as also his organs of knowledge such as the eyes, the nose, etc. A boy who knows that he should not use his hands in stealing things or killing flies or beating the younger brothers, sisters and playmates has already made a good beginning on his way to education. The same may be said of the boy who understands the need for keeping his teeth, tongue, ears, eyes, nails, etc., clean and does so. A boy who does not indulge in pranks while eating or drinking,

who has learnt to eat and drink in the right manner whether alone or in company, who knows the distinction between wholesome and unwholesome food and chooses the former, who does not over-eat, who does not ask for every new thing he sees and who, when he asks for it and does not get it remains quiet, may be said to have progressed quite a good deal in his education; whose pronunciation is good, who can tell the history and geography of his region, who knows what is meant by the motherland, has travelled a fairly good distance on the road to education. Similarly with him who has learnt to distinguish between truth and untruth, between good and evil, and who invariably chooses what is true and good. I should make one thing clear: there is no need of the knowledge of reading and writing in order to learn the things I have spoken of above. To make the boys learn the alphabet is to put an undue burden on their young minds and to misuse their eyes and hands. A rightly educated boy gets to learn reading and writing almost without any effort at the proper time.

The boy can get the education I have spoken of only at home and that only through the mother. But seeing that the home has disintegrated and seeing that most parents are not equal to the task, the boys should be placed in surroundings where they will get the same atmosphere as they do at home. Since the mother is the most competent to undertake the duty of educating the children, this particular task should be entrusted only to women. As a rule, men are far behind women in respect of love and patience. Hence the question of the education of children cannot be solved unless efforts are made simultaneously to solve women's education. I have no hesitation in saying that as long as we do not have real mother-teachers who can successfully impart true education to our children, they will remain uneducated even though they may be going to schools.

FRONTIERS

Signs of Care

A SENTENCE in a novel of five years ago reads: "Down below, the houses of the town looked like they had been scattered on the hills by some careless boy." It might have been worse. There are sections along Pacific Coast Highway, facing the ocean, where scores of houses, all the same, are built so closely together that they look like, and sometimes are, all one piece of construction, with vacant land all around. Not a careless boy, but some calculating developer did it. The people who live there have nothing to do with planning how their homes look. We won't even mention the cities with their ugly signs and invading noises. They are not planned at all.

Thinking about these things, we came across this opening passage in an article about a small homestead, by Wendell Berry in *Organic Gardening* for June:

When you go to see Tom and Ginny Marsh, you turn off a busy road near Borden, Indiana, into an almost hidden entrance. You cross a stream, pass the end of a hedgerow of autumn olives, then drive past berry beds and a garden. Suddenly you are struck by one of the most pleasing of realizations: you have come to a place that loving attention has been paid to. Everywhere you see signs of care. . . . The natural character of the place has been respected, and yet it has been made to accommodate gracefully the various necessities of a family's life and work.

The Marshes are potters who teach across the state line at the University of Louisville. They have shaped their homestead with as much care as they give to their ceramic art. They keep chickens, hogs, and a cow on this place where they came in 1970, when it was neglected waste land. Berry tells about its transformation, growing out of their feeling that there is a kinship between subsistence farming and making pots.

The Marshes grow most of their own food, and they make most of the dishes they use to prepare and serve it. And they do each kind of work under the influence of the other. . . . By now they have what you would call an exemplary subsistence farm. Of their

12½ acres, all but four are wooded. Two of the cleared acres are in pasture. The rest is taken up by buildings, garden, fruit trees, etc. Because their acreage is so small, the Marshes have had to work with a lot of patience at the problems of design and scale. Everything had to be put in the right place, or it would be in the way of something else. . . . Balance has defined the limits. The Marshes wanted a place large enough to provide a subsistence, but not too large to care for. They wanted to grow enough food so that they could keep what they needed and give some to friends. They wanted their life to have a margin of generosity, but not of waste; and in providing for their needs, they find they often have more than they need.

That, you could say, is the way the whole world ought to be—*mutatis mutandis*, as the Romans put it ("The necessary changes being made"). Berry doubtless had something like this in mind in writing about what the Marshes have accomplished. It seems just about perfect. Someone might object, but isn't this cruelly unfair to all the people who lack either capacity or opportunity to have or make such a place? What good does all this rural romanticism do? A general realization of such ideals is so distantly remote that it would be better to write about more feasible goals. And so forth.

One has to think about this. One has to ask: Can the human race do without utopian visions? Because dreams are or seem unattainable, should people stop dreaming? Should we edit all the stories and legends of great heroes out of our literature? Should we abolish the Olympic games because only a few people can run that fast or jump so high or swim so well? And if, by talent, insight, and perseverance there are individuals who manage to do what they set out to do with extraordinary success, shouldn't we tell one another about it? If Pavlova was still dancing, would you refuse to take some spindly-legged little girl to see her, because she will never be able to move like that?

At issue is the nature of human beings and the actual provocatives of striving toward the good. Early in this century a psychologist found out that

when children are denied fairy stories, they invent them. What contrapuntal relation is there between vision and life? Shouldn't we know more about this? Well, a few people have worked on it, as in Arthur Morgan's book about Utopias, *Nowhere Was Somewhere*.

Would people deprived of vision or the literature of vision ever start doing things which at first seem either unlikely or impossible? There was a report in *Self-Reliance* for January-February, which begins:

Three years ago the New York City Parks and Recreation Department spent several million dollars rehabilitating Crotona Park, a 147-acre park in the South Bronx. They resurfaced basketball courts and replaced hoops that had been torn down long ago. They planted hundreds of trees and added new facilities, including a swimming pool.

Within a year Crotona Park was a mess. The basketball courts were covered with broken glass, and hoops were torn down again. Most of the trees were torn to pieces, and the pool was destroyed. The city's millions were completely wasted.

Several blocks north of Crotona Park, a different kind of park was built. A group called the Community Involvement Program covered a small corner of a vacant lot with topsoil and invited about twenty residents to grow vegetables on the site. Local teenagers helped build a fence around the garden. The entire project, called "A Farm in the Bronx," cost a few hundred dollars. Vegetables grew all summer and they were never vandalized. This summer more residents want to plant gardens and the group has plans to expand. . . .

Based on this kind of grassroots experience, a new urban parks program has started in the South Bronx that may become a model for urban parks throughout the country. During the next year and a half, at least twenty community groups in this ravaged section of New York City will be turning fifteen vacant and rubble-strewn lots into community gardens, parks and playgrounds.

People from the Institute for Self-Reliance in Washington, D.C., are helping, with funds for materials available from the Department of Interior. A spokesman says:

Motivating community residents is difficult because often they doubt that anything worthwhile can get started. "We may have to show people we really mean business, like bringing in a bulldozer to clear off a site," says Tom Fox, an Institute staff member. "Once something like that happens, it's easier to get other people interested."

Write a story, . . . drive a bulldozer, . . . do something or other. Initiative is provoked in various ways.