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CREATION AND DISCOVERY

THERE is a sense in which to know something completely is to make it uninteresting. A lecture on the art of walking would attract little attention, although a class in walking as Isadora Duncan was able to walk might be oversubscribed. What we know is not a goal but a point of departure. People who are ill seek health, but once they know health—if, indeed, they really know it—they stop talking or even thinking about it. Their health is simply there, like the ground under their feet, while their lives, no longer plagued by bad health, remain to be lived. For the human being, living means going beyond what is known. Doing only what is known produces utter boredom. Therefore, human life is a work of the imagination, since what is not a result of imagining—the mere repetition of what we already know—is, so to speak, merely the "animal" part of our lives, the part which becomes of interest or requires attention only when disordered. Its good order is desirable so that it can be forgotten, left alone to run by itself. Instinctively, as we say. Breathing is extremely important to living but a man who had to think about his breathing would do little work. Good breathing, like good health, is an unconscious activity. Blessed are the instincts, which by their perfect knowledge free us to do what we desire to do with our lives.

What, then, *is* this imagining power we have—or perhaps are—which is the mode of our peculiarly human activity? Simply to ask this question is to be brought to the portal of the other world, the world of ideas, the non-material world, for which we have only feelings instead of definitions, and wonderings instead of certainties. There are, as material for reflection, a number of great metaphysical systems of both East and West. There is Vedanta based on Sankaracharya, the Gnostic and Neoplatonic systems, and the Monadology of Leibniz. All these explanations are suggestive, and seem related, but there is another side of the question, implied by the Dutch phenomenologist, Van den Berg, who said, "We are continually living a solution of problems that reflection cannot hope to solve." Something almost lethal seems to happen to a subjective reality when it is described in the terms of objectivity. The man of active imagination, whose life has a continually creative focus—does he not "know more" of this power, of his own beinghood, than the shadow of its movements that can be described in words? It was Coleridge, a supremely imaginative man, who insisted on the distinction between Beholding and the description of what is seen "by acts of abstraction," which can do no more than, like shadows, record the "rememberable outlines of the Substance."

Yet Coleridge used the metaphysical systems he was familiar with to order his "remembering" of the play and labor of the imagination.

Appropriately enough, on the margins of a work by William of Occam, Coleridge inscribed these reflections:

> There is, it is admitted, a Reason, to which the Understanding must convert itself in order to obtain from within what it would in vain seek for without, the knowledge of necessary and universal conclusion—of that which is because it must be, and not because it had been seen. May there not be a yet higher or deeper Presence, the source of Ideas, to which even the Reason must convert itself? Or rather is not this more truly the Reason, and the universal Principles but the Gleam of Light from the distant and undistinguished community of Ideas—or the Light in the Cloud that hides the Luminary? O! let these questions be once fully answered, and the affirmative made sure and evident—then we shall have a Philosophy, that will unite in itself the warmth of the mystics, the definiteness of the Dialectician, and the sunny clearness of the Naturalist, the

productivity of the Experimenter and the Evidence of the Mathematician. . . .

> Where'er I find the Good, the True, the Fair,
> I ask no names. God's Spirit dwelleth there!
> The unconfounded, undivided Three.
> Each for itself, and all in each, to see
> In Man, and Nature is Philosophy.

Richard Haven comments in his study of Coleridge (*Patterns of Consciousness,* 1969):

> It was Coleridge's dream that in his projected "great work" the "truth" which he contemplated would at last appear with perfect clarity as "the principle that was derived from experience, but of which all other knowledge should be so many repetitions under limitations." In this, he failed. He left only fragments, and there are few people now who would find those fragments the foundations of an acceptable explanation of the complexities of the universe in which we live. But if I am correct in my conception of Coleridge's purpose, then his speculations have another significance and another value. The universe which he tried to define as philosopher was the universe which he experienced as poet. The formulations which he adopted as philosopher provided him with a language in which he could talk about his experience as poet.

It might be added that Coleridge's speculations have still another significance, for we can say that, whatever his success or failure, his *purpose* has close family resemblances to the purposes of others in whom the imaginative power similarly flowered. There is this deep sense of the reality of another world—a feeling which may seek realization in a work which will tell more of the truth about invisible things than has been told before, or in efforts to make that other, better, or higher world more present in its actuality in this one. There seems to be an intrinsic missionary or Promethean impulse in the creative power of the human mind—the fulfillment of more stately mansions is a protean ideal.

Always there are those "family resemblances" in the thoughts of imaginative men. Readers may recall a passage quoted from the Irish poet and essayist, George Russell (A.E.), some months ago, in which he said that the mystic kindles his own light for his vision—a more difficult thing than simply to catch fire from the inspiration of another. The idea that the higher aspect of the mind is self-luminous is not new—it appears repeatedly in the work of those who are "living a solution of problems that reflection cannot hope to solve." And from such "living" come certain necessities of language, required for sustained use of the power of the imagination. There is for example the following in Gaston Bachelard's *The Poetics of Space* (Grossman):

> The language of contemporary French philosophy—and even more so, psychology—hardly uses the dual meaning of the words soul and mind. As a result, they are both somewhat deaf to certain themes that are very numerous in German philosophy, in which the distinction between mind and soul (*der Geist und die Seele*) is so clear. But since a philosophy of poetry must be given the entire force of the vocabulary, it should not simplify, not harden anything. For such a philosophy, mind and soul are not synonymous, and by taking them as such, we bar translation of certain invaluable texts, we distort documents brought to light thanks to the archeologists of the image. The word "soul" is an immortal word. In certain poems it cannot be effaced, for it is a word born of our breath. . . .
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> In the domain of painting, in which realization seems to imply decisions that derive from the mind, and rejoin obligations of the world of perception, the phenomenology of the soul can reveal the first commitment of an œuvre. René Huyghe in his very fine preface for the exhibition of Georges Rouault's works in Albi, wrote: "If we wanted to find out wherein Rouault explodes definitions . . . we should perhaps have to call upon a word that has become rather outmoded, which is the word, soul." He goes on to show that in order to understand, to sense and to love Rouault's work, we must "start from the center, at the very heart of the circle from where the whole thing derives its sources and meaning: and here we come back again to that forgotten, outcast word, the soul." Indeed, the soul—as Rouault's painting proves—possesses an inner light, the light that an inner vision knows and expresses in the world of brilliant colors, in the world of sunlight, so that a veritable reversal of psychological perspectives is demanded of those who seek to understand, at the same time that they love Rouault's painting. They must participate in an inner light which is not a reflection of a light from the outside world.

One might remember that in E1 Greco's painting, "The Adoration of the Shepherds," at the Metropolitan Museum of Art, all the light comes from the Christ Child.

The point, here, is that the exercise of the creative imagination generates the need for a transcendental vocabulary—one word will not do: both mind *and* soul are required. It is the language of uniquely human experience, reflecting the movements of the mind into areas not yet known, but of which we have intimations, although in those areas we must bring our own light. The world of borrowed or reflected light is not the world of the imagination, but rather the world of past and crystallized or hardened acts of creation. It is the world we know, upon which we stand, and where the operation of law is external and objective. The internal world, or the other world—the world of subjective becoming—is known by other means.

How? Mystics, poets, metaphysicians all give evidence of knowing something of at least the borderlands of the other world, and there are great revelatory utterances that send their echoes down the centuries, with resonances that cannot die away. Such communications seem to reveal, not the truth in maps and passage-ways and passports, but the majestic architecture of a thought that must have originated on great heights, making imitation futile. A declaration which has the rhythm of the universe in it does not lie. So there is reason to think that there have been those who are able to live in two worlds at a time, and to be more at home in that other one than in ours.

Meanwhile, to expect easy information on such matters may show that we have not seriously tried to observe the inner, perceiving and imagining activity of forays into inner space. Even the doorways have had little attention. Consider one account of how an observant man of imagination may learn from the nightly experience of sleep:

> No sooner do we start to fall asleep than space relaxes and falls asleep, too—doing so a little ahead of us, losing its struts and fibers, losing its structural forces and its geometric coherence. The space in which we shall spend our nocturnal hours has no perspective, no distance. It is the immediate synthesis of things and ourselves. If we dream of an object we enter into that object as into a shell. Our oneiric space always has this central coefficient. Sometimes in flying dreams we think we are very high up, but we are no more than a little bit of flying matter. And the skies we soar through are wholly interior—skies of desire or hope or pride. We are too astonished at our extraordinary journey to make of it an occasion for a spectacle. We ourselves remain the center of oneiric experience. If a star shines, it is with the sleeper's radiance: a tiny flash on the sleeping retina evokes an ephemeral constellation, conjuring up confused memories of a starry night.

This is Gaston Bachelard again, in *The Right to Dream* (Grossman, 1971). He believes that going to sleep is an important expedition into consciousness:

> Our eyes, then, themselves possess a will to sleep, a heavy irrational, Schopenhauerian will. If our eyes do not share in this universal will to sleep, if they remember the brightness of the sun and the delicate coloring of flowers, then oneiric space has not found its center. It retains too much depth of perspective; it is the broken, turbulent space of insomnia. It preserves the geometry of day—except that that geometry has of course loosened its stays and become false, comical and absurd in consequence. And its dreams and nightmares are as far removed from the truths of light as they are from the deep sincerity of night. To sleep properly we must obey the will to envelopment, the will of the chrysalis, with the smoothness of a well-coiled spiral we must follow the movement of envelopment right to its center—an essentially curved, circular process eschewing all angles and edges. The symbols of night are governed by the ovoid. All such elongated or rounded shapes are fruits in which germs may ripen and mature.

How can Bachelard say all this with such confidence? He is, so to say, exercising his power of the imagination. His judgments have the integrity of the creative act. He does not inform; he celebrates or generates. So with the great poet. Why does the *haiku* both thrill and quiet? What does its simplicity record, but some timelessness caught for a moment in the world of ceaseless change? In our world the truths of the

other world must always be in cipher; and in the other world the truths of this one may not be important enough to be remembered. If you need them, they are always in some book. But the truths of the other world are seen by the effulgence of a mental light, and each observer stands in a different place; nor do the archetypal forms or Ideas of that world stand there waiting to be seen, like famous pictures in a gallery, but have their life and being through the power of the imagination, which develops living prints from the negatives of lawful possibility. The process may be very like any process of coming into birth. There is no birth without a matrix, without travail, and the birth of the other world comes little by little, as an age comes into being, although in this case the matrix is the field of living thought. Amiel wrote of other requirements:

> And if you feel something new, whether thought or sentiment, awake in the root of your being, do not at all bring light or attention to bear on it quickly; protect the birth of the germ by forgetting it, surround it with peace, do not rob it of its darkness, allow it to shape itself and to grow, and do not noise your fortune abroad. Sacred work of nature, every conception should be enveloped in a triple veil of modesty, silence, and of shadow.

The time of its maturity and use will make itself known, according to the rhythms of that order of being.

How does a man with a growing sense of the reality of a world made—or made accessible by the power of the imagination put his thoughts to work? Well, he has certain qualities of mind and heart. He has a faith grounded on feelings of reality and meaning which come from within. He may be made sad, but he does not lose direction. He cannot speak of what is, save in some reasonable relation to what ought to be. Without prophetic intentions, he finds he has the capacity to affect and stir.

When J. B. Priestley reached his seventy-fifth birthday, his friends gathered at a dinner in London to honor him. On that occasion one of them spoke briefly about Mr. Priestley's life and work:

> "He brings us together," said Robert Robinson, and he was speaking not only of that gathering but of the millions beyond it, "not like the image-men, in order to sell us something, not in order coldly to exploit our weaknesses rather than warmly to gratify our desires—but at the level where men and women are truly joined, the level where dreams are dreamt, Priestley broaches the reader's own dream, by broaching his own. And he gives us what only the rare ones give us—a sense that we are collaborating, rather than simply paying to go in. He admits us to the country of ourselves."

The difficulty in speaking of the reality of the dreams which form so much a part of the life of the imagination lies in the fact that the dream cannot be characterized or understood by giving an account of its setting and furniture. The imagery, we may say, *is* the dream, yet the least part. For its meaning, like the hero with a thousand faces, may have a thousand settings.

In one of his books, *Rain upon Godshill,* Priestley tells of an actual dream he had some thirty years ago when living on the Isle of Wight. He dreamed he stood at the top of a very high tower, watching a vast flight of birds, all moving in one direction. It was like the River of Life, a noble sight; but then the flow went into another gear and in the course of the flight birds were born, wasted, died, and the blind destruction made the flight into a meaningless fury of existence. What use could it have? And in his dream he brooded:

> I felt sick at heart. It would be better if not one of them, if not one of us all, had been born, if the struggle ceased forever. I stood on my tower, still alone, desperately unhappy. But now the gear was changed again, and time went faster still, and it was rushing by at such a rate, that the birds could not show any movement, but were like an enormous plain sown with feathers. But along this plain, flickering through the bodies themselves, there now passed a sort of white flame trembling, dancing, then hurrying on; and as soon as I saw it I knew that this white flame was life itself, the very quintessence of being, and then it came to me, in a rocket-burst of ecstasy, that nothing mattered, nothing could ever matter,

> because nothing else was real, but this quivering and hurrying lambency of being. Birds, men or creatures not yet shaped and coloured, all were of no account except so far as this flame of life travelled through them. It left nothing to mourn over behind it; what I had thought was tragedy was mere emptiness or a shadow show; for now all real feeling was caught and purified and danced on ecstatically with the white flame of life. I had never before felt such deep happiness as I knew at the end of my dream of the tower and the birds, and if I have not kept that happiness with me, as an inner atmosphere and a sanctuary for the heart, that is because I am a weak and foolish man who allows the mad world to come trampling in, destroying every green shoot of wisdom. Nevertheless, I have not been quite the same man since. . . .

(This is quoted in J. B. Priestley—*Portrait of an Author,* by Susan Cooper, published by Harper and Row in 1970.)

What did Mr. Priestley see in his dream? How foolish it would be to speak of what he saw in ornithological terms! What does "seeing" mean when seeing is really the feeling of the impact of meaning—a sense of the everlasting fitness of all natural things?

Even "knowing" becomes an ambiguous term in relation to such experiences. It was, one may say, a "peak experience." It is a seeing that is truly a becoming, which leaves us with an amplified beinghood. There are rhythms with which we may come into harmony, so that our "knowing" is a kind of union, according to the octaves we have open, with a wider radius of self than the world of the senses will allow. If those rhythms come to shape the underlying structure of thought, then the thinker may find born in him a knowledge more closely approaching things in themselves. So Coleridge believed only in a knowledge based upon deep experience, and while his project of a great compendium of universal truth was a failure, his conception of knowing has independent validity. Knowledge, it seems clear, is both creation and discovery, and there may be planes of thought where these two are one.

REVIEW
TALKS WITH FRANK WATERS

A PLEASANT little book that probably hasn't had much notice is *Conversations with Frank Waters,* edited by John R. Milton and published in 1971 by the Swallow Press in Chicago. Mr. Milton works for a television station in South Dakota and was able to persuade Mr. Waters to answer questions in a series of programs. The book is the report of the programs, revealing Mr. Waters as an unpretentious man who has thought a lot about the Indians of the Southwest, and has lived close to them for a large part of his life. It is not hard, he says, to be friends with the Indians and to gain their trust, if they sense that you are *simpático* and you don't ask too many questions.

Enthusiasts of Waters' *The Man Who Killed the Deer*—and all its readers are that—will be interested in this bit of background:

> Well, when I wrote the book I was afraid that every friend of mine would be punished severely for having told me some information, because a noted woman ethnologist had come out to make a study of Taos Pueblo. It was printed as an ethnological paper, and the Indians found out about it. Every person that talked to her as an informant was brought before the council and several were fined or whipped, so I was afraid that would happen to all my friends. I happened to be in California at the time I received the first advance copy of the book, so I sent it back to the council's interpreter and requested him to show it to the council, to read passages. And if there were any objections to wire me and I would come right back before the council. As a result I did not have any repercussions at all.

Actually, the older members of the pueblo felt that important things in the book would become known to the younger people, who were forgetting them, and when Waters did visit the Taos Pueblo again some of the Indians said, "Gee, you told us a lot of very fine things we didn't know."

Waters believes that the ceremonial forms embodying the values of Indian life may die out, but that the values will survive in some other medium. Here Milton remarked that a character in another book by Waters, *People of the Valley,* distinguished between "progress" and "fulfillment," and wondered if this distinction would be preserved. Waters said:

> Well, all I know is that you can't put these things into words because then you preach—you are no longer telling a story. In *The Man Who Killed the Deer* I tried to do that by putting these unspoken values into words printed in italics. Because Indians don't talk like this, they don't put it into words. So I just put it into italics—to separate it from the story-telling context of the novel, and still give the emotional value. My way of solving a technical problem.

Speaking of the transmission of the values, Waters tells how, when he was gathering material for *Book of the Hopi,* he was able to tape the recollections of about thirty old men who gave in the Hopi language the meaning of the tribal rituals. They cooperated with him because they trusted him and felt that their children and their children's children would in this way have a record of the beliefs of their forefathers. This transmission of cultural secrets or philosophy to a man of another race, but one who had understanding and respect for the spirit of Indian life, recalls the sympathetic reception by Black Elk of John G. Neihardt and Joseph Epes Brown, and also the invitation by the old African sage to the French ethnologist to record the philosophy of the Dogon people. In all these cases there is a very direct and deliberate transfer of values.

When Milton asked Frank Waters why there should be ritual at all, or if the ritual was simply an art form, Waters replied:

> No, it's not a Sunday religion like ours. It's a religious experience. In other words, they really live through these great experiences all year long.

This is substantially what Wendell Berry observed in commenting on the Sioux:

> Black Elk and his people, however, were further advanced [than the modern ecologists], for they possessed the cultural means for the enactment of a ceremonial respect for and delight in the lives with which they shared the world, and that respect and delight afforded those other lives effective protection.

In answer to a question, Waters described the Hopi ceremonials:

> There are nine ceremonies in the annual cycle. The first comes in the fall, and has many rituals, and lasts for nine days and nights. It symbolizes the dawn of creation when the seeds of human life are planted, which is a

literary image. It takes us up just as if the whole earth was at the dawn of creation, so they go through the rituals of planting the seeds of life. Then about Christmas time, the second one comes in, and this portrays the germination and the sprouting of these forms of life. In the third ceremony, man appears, and they erect houses for the first time. Now all these are in abstract symbols, but this is what they represent. The second group of three ceremonies comes in the summer when the life they have planted comes to full maturity, like the corn. Then the third set of three ceremonies follows in the fall and that has to do with the harvesting, getting ready for the cycle to be repeated. So what they are telling in abstract symbolism is the creation myth, the book of Genesis which is repeated every year. The creation of the world did not happen just once, but it happens every year, and it is continually repeated. So these are simple things, but it is their abstract quality that makes them so—you might say—unintelligible to people who don't know their symbolism.

An interesting feature of the Hopi beliefs about creation is the idea that "people have lived in three preceding worlds before this one," and that each of these three earlier worlds was destroyed by cataclysm, with a few people saved as the seed of the new humanity to be born in the next world. Waters notes that the same teaching existed among the Mayas in Yucatan and Guatemala, and Tibetan and old Chinese mystics.

In the final interview, Milton asks Waters what he thinks about the peyote religion of the Indians. Waters says:

> I think the peyote religion is an escape religion because it did not come into the Southwest until the pressure was put on these Indian groups by us white people. So it offered an escape. It was the same thing as the Ghost Dance among the Sioux many years ago; it offered an escape mechanism. . . . It's a psychological escape. Peyote predominantly instigates very beautiful dreams. Actually, peyote is an escape mechanism and as long as people have their own valid religion, a peyote man doesn't have much of a chance. Now they have tried it in some of the pueblos and for fifteen or twenty years they were strong, but it hasn't lasted. It hasn't outlasted the native old religion, but it has spread quite a bit to other tribes, like the Navahos, in the very measure under which they live.

Asked if he was opposed to peyote as an escape mechanism, Waters replied:

> Yes, I think so. I think that religion can't be founded on an artificial source. I think a religion has to grow right out of the earth and be absorbed completely with the whole mythical content of the unconscious. But to take a—I can't call it a narcotic because it hasn't been proved to have narcotic qualities, but it certainly induces—induces dreams and color vision.

There was some discussion of the Native American Indian Church, which is an Indian church which uses peyote as the sacrament, instead of wine, and Waters pointed out that the name of this church was a label applied by the Government. He then traced the use of peyote by Indians:

> I'll tell you, it has a very peculiar history. I don't want to talk too much about it because I am from New Mexico where many of the people take peyote and many of my friends are peyote eaters. Peyote originated among the Huichole Indians in the Sierra Madre mountains in Mexico and then it spread up into the plains tribes. The Kiowas brought the peyote button to Taos Pueblo and there was a great Peyote movement twenty-five years ago. It still has members, but it is dying out. It is not like it was fifteen years ago. But, on the other hand it has moved westward and has been adopted by the Navahos, and now I understand it is moving north to the Sioux. Following the course of this, it has followed the deterioration of Indian culture as a substitute for their own valid religion which has broken down. . . . The Huicholes are dying out, and then it spread to the Kiowas on the Great Plains, and now the Kiowas are dying out. . . . It came to the Pueblos where ceremonialism was very strong, so it didn't last very long. Then It spread through the Navahos as their ceremonialism began to break up. For a different reason, not because they are so poor, but because they are getting too rich—uranium royalties oil royalties, timber and coal. They are getting to be the richest tribe in the country.

As the final note, we learn from this book that the land around the sacred Blue Lake of the Indians of the Taos Pueblo was at last restored to them by an act of Congress in December, 1970. Mr. Milton thinks, with others, that *The Man Who Killed the Deer* played a part in winning this final success for the Indians.

COMMENTARY
INVERSION OF THE QUEST

PERHAPS poets like Coleridge and thinkers like Bachelard may be charged with other-worldliness and indifference to the woes and injustices on earth, but this would be beside the point of our lead article, which is that *without* conceptions of higher purpose and meaning beyond physical "survival," even the best planned utopias may go sour, ending in totalitarian horrors and sometimes nihilistic revolts.

For there are transcendental hungers in human beings. Each one in his own way reaches after the timeless, the immutable, and if a man has no deliberated conception of the inward nature of these realities, he is likely to seek their substitutes in endless acquisition in the finite world—whether of wealth, power, or some egotistical mania. This inversion of the quest for meaning is the ultimate delusion and tragedy of the human being—typified by the wicked sorcerer in Eastern lore, and in the West by Faust. When the spiritual and the transcendent are denied, then the energies which belong to aspiration find expression in the compulsive *always more* appetite for the things of this world. And since material things and powers exist only in finite quantities, a vast competitive struggle sets in, persuading its participants that the "struggle for existence" and the "survival of the fittest" are indeed the very laws of human life. Even reformers are infected by this doctrine, failing to see how the denials of man's moral and spiritual nature are the root cause of the abuses that are all about.

After a long cycle of such desperate strivings, and the resulting inequities, conditions of misery become so extreme that moral reformers see the necessity for initiating change on two levels. This is agonizing for the wise reformer, for he also knows how difficult it is to maintain balance when there is both material and spiritual deprivation. Thus Gandhi was driven to declare that "God dare not appear to the hungry man save in the form of bread," yet at the same time to point out that material help without moral regeneration could accomplish but little. Bellamy must have been brought to see the need for both sorts of struggle, since his early works show a profound interest in psychological and religious reform, after which he turned to plans for social reorganization. But now "socio-political" has been the magic phrase for a long, long time. It is becoming evident that the great need of the present is for recognition of the psycho-moral and even philosophical foundations of motivation.

CHILDREN
. . . and Ourselves
ASSUMPTIONS IN EDUCATION

THERE is so much good sense and practical suggestion in Roland Barth's *Open Education and the American School* (Agathon Press, $7.95, distributed by Schocken, 1972) that it is hard to know what to tell about. You start with initial guilt feelings about reviewing *another* book on education, since there are obviously too many books for any busy person to read. But that's the way we do things in America, too much of everything—even of what is "good." Having acknowledged or declared this, it becomes necessary to add that in a very non-utopian situation one ought not to expect either ideal circumstances or ideal solutions. Like Tolstoy's theory of art, the "ideal" has to emerge under difficult and usually compromising conditions, so that it may be difficult to recognize. Bad conditions often give a negative appearance to affirmative acts, as for example in the case of conscientious objection to war.

The first chapter of this book is called "Assumptions about Learning and Knowledge." In it Mr. Barth lists twenty-nine assumptions of "open education," under each of which he provides some discussion and quotation. A reader could spend a couple of months on this chapter, thinking about what is said, and years exploring its implications. Mankind has been wondering about various aspects of these assumptions for thousands of years, since timeless questions about human nature are involved.

Some of the assumptions seem either empty or full, depending upon what you think about the meaning of being human. There is for example Assumption 25, and the two following quotations:

> The quality of being is more important than the quality of knowing; knowledge is a means of education, not its end. The final test of an education is what a man is, not what he knows.

> More important than knowledge of the facts of science is the experience of having been personally involved in a search for knowledge.

> These children are engaged in living, not in becoming those unfortunate trained animals called students or pupils.

One sort of youngster might think to himself: Well, fine, but will this get me a job? Or his parents will think it for him. And the teacher may be forced to realize that if he is going to practice the obscure art of this sort of education, win or lose, it may have to be a clandestine undertaking involving a "hidden curriculum." In another part of his book, Mr. Barth makes this quite clear. He says:

> The fact of the matter is that *most* parents' concepts of quality education are along the lines of the traditional, rigorous, transmission-of-knowledge model. *Most* parents care deeply about their children and rely heavily upon "school" to bring them success, wealth and satisfaction. Whereas inner-city parents might see school as providing their children a stable place in the job market, suburban parents depend equally heavily upon school to assure admission to Exeter, Harvard, and the medical or legal profession. These aspirations, although different, are held with equal tenacity. Anything which would interfere with them will be opposed with equal fierceness. When confronted with a kind of education which apparently violates these expectations and differs so completely from the established path toward these goals, most parents fear for the success of their children. It is not surprising, then, that most parents view open classrooms as a risky, untried experiment with their children's lives—a gamble best not taken. Many inner-city parents see informal classrooms as appropriate only for middle-class children who already "have it made"; many middle-class, suburban parents see informal classrooms as appropriate only for working-class children, who aren't going to college anyway and thus have little to lose. For few parents is open education synonymous with the best education for their children.

So, for the teacher, there is this problem of coping with a culture that prefers superficial knowing to being, and will not easily be persuaded that it is possible to have both, and without the superficiality, too.

Mr. Barth discusses this at some length. We shall not repeat him because the germinal parts of his book seem more important. Working out solutions to such problems is very much an individual activity, and the answers often have more to do with the "public relations" side of educational psychology than anything else.

Socrates found one solution. He went into the streets instead of into the institutions (Sophist style groups). He went to the streets and practiced his art out there where all the charlatans and fakers are, taking his chances on finding pupils, and with public opinion, too. He was lucky in his pupils, finding Plato, for one; but unlucky with public opinion. It takes a Socrates to make real educational capital out of your own execution. His death at the hands of the Athenians seemed to earn him a deathless voice. Yet a martyr needs have something more than his death to *hold* attention for his ideas. And while Luther risked something like the fate of Socrates, Erasmus accomplished a lot of good, too. To be worthy of martyrdom takes really extraordinary qualities.

Going back to chapter one and the Assumptions of Open Education, No. 28 seems equally fruitful for reflection:

> There is no minimum body of knowledge which is essential for everyone to know.
>
> . . . no real core of knowledge exists that is essential for everyone.
>
> "Do you have any standard that you try to get all the children to do by the time they leave you [at about age seven] and go on to the junior school?" "Well, yes, we do like to send every child to the junior school able to attempt reading."
>
> There is no important body of material in science . . . which for conventional reasons must be learned and learned well. The names and the sizes of the planets, or the classification of local mammals to the family level, or the parts of the perfect flower, do not impress us as universal nuggets of science everyone must store up. It is equally true that the so-called methodology of science, with its neat hierarchy of observation, hypothesis, test and so on, is a mythology without appeal.
>
> . . . are there certain histories, stories, poems, and myths that continue to illuminate our culture and for this reason belong in the curriculum for all? Can these be left entirely to individual choice? Should intrinsic worth of content be a factor in the selection of material for study?

Wouldn't this last question make a splendid "core" program for people of college age? Especially for those hoping to teach? What *is* a myth, anyhow? The word has become a synonym for almost every sort of belief that is used in some explanatory, justifying, or polemical way. Should the term myth be reserved for material which has content of a certain dignity? If so, why? What *is* dignity? Eric Havelock's *Preface to Plato* becomes important reading in any study of the role of myth in the shaping of culture. Also Northrop Frye (*The Stubborn Structure*), and Jung and Cassirer. The best brief definition of myth we have come across is that given by William Irwin Thompson in *At the Edge of History:*

> Myth is not an early level of human development, but an imaginative description of reality in which the known is related to the unknown through a system of correspondences in which mind and matter, self, society, and cosmos are integrally expressed in an esoteric language of poetry and number which is itself a performance of the reality it seeks to describe. Myth expresses the deep correspondence between "the universal grammar of the mind and the universal grammar of events m space-time.

What could be done with the idea of the myth in relation to education? Well, one could read the *Iliad* and then Simone Weil's essay, *The Poem of Force,* as a way of realizing the power of Homer's epic. One could take together the myth of Prometheus and the story of the Garden of Eden and compare the roles of the Serpent and Prometheus. One could read the myth of Sisyphus and then both Arthur Miller's play, *The Death of a Salesman* and Beckett's *Waiting for Godot,* and consider the possibility that these modern plays are expressions of the mythopoeic art. It might be good to add Camus' essay, *The Myth of Sisyphus,* to this combination. But these

relate to adult complexities. The hero myths are natural food for children, also having linings for the grown-up reader. Wouldn't all this "illuminate" our culture?

Then there's the story of Faust, which has proved so useful to present-day critics. In *The Hidden Remnant,* Gerald Sykes called the nuclear scientists "boy Fausts." Was the Manhattan Project a corporate performance of The Sorcerer's Apprentice?

Was Elizabeth Seeger right in maintaining that great epics belong to the early period of human history, which is affirmative, strong, and heroic? Can such a time come again? (Miss Seeger said this in her introduction to *The Five Sons of King Pandu*—a young people's version of the *Mahabharata.*)

Many of the assumptions attributed by Mr. Barth to open classroom educators and teachers are susceptible of developments of this sort.

This seems enough to say in recommendation of his book.

FRONTIERS

Means to Ends

VOCATIONS FOR SOCIAL CHANGE—a publishing and informational program sponsored by the New England Office of the American Friends Service Committee—is now publishing an annual called *People's Yellow Pages,* providing 178 pages of entries in a directory of the activities pursued by people "working for radical change of our lives and institutions." The coverage seems to apply to the East Coast, mainly in Massachusetts—in Cambridge and the Boston area. This is the 1973 (third) edition of *PYP* which is sold locally (in Cambridge) at a dollar; by mail at $1.45; and at $1.95 by the stores which carry it. The address is 353 Broadway, Cambridge, Mass. 02139.

People's Yellow Pages is best described through a few illustrations of its contents. Among the "A" entries, for example, under Advertising, is a place called The Revolutionary Rainbow Factory in Wellesley, identified as "A non-profit movement advertising design studio" which works "solely with movement groups and attempts to get their words, ideas, and/or actions to the people through visual and conceptual means." The fee is "cost of materials or what you can afford." Also under "A" is a New York Amnesty group working on amnesty for all deserters and resisters. You find the address of a man who both designs houses and does plumbing and carpentry, etc., under the heading of Architecture. Under Arts and Crafts are listed two women who call themselves surface transformers—they will put murals on your walls, and maybe the ceilings; they liked to be helped by the owners. Under "Birth" you find the La Leche League listed, for counseling on breast feeding, and Lamaze training in natural childbirth.

What we looked for in this directory was evidence of an interest in pioneering in relation to the basic economic needs of food, shelter, and clothing. A great many radical groups are listed, and numerous activities devoted to miscellaneous reforms, and a lot on communes and communities, but under "Clothes," for example, we found only two entries that have to do with actual clothing production—one a dressmaking co-op, the other a woman who makes clothes and does embroidery. There is room, here, for applications of what E. F. Schumacher said in his article, "Buddhist Economics":

> . . . the aim should be to obtain the maximum of well-being with the minimum of consumption. Thus, if the purpose of clothing is a certain amount of temperature comfort and an attractive appearance, the task is to attain this purpose with the smallest possible effort, that is, with the smallest annual destruction of cloth and with the help of designs that involve the smallest input of toil. The less toil there is, the more time and strength is left for artistic creativity. It would be highly uneconomic, for instance, to go in for complicated tailoring, like the modern West, when a much more beautiful effect can be achieved by the skilful draping of uncut material. It would be the height of folly to make material so that it should wear out quickly and the height of barbarity to make anything ugly, shabby or mean. What has just been said about clothing applies equally to all other human requirements. The ownership and consumption of goods is a means to an end, and Buddhist economics is the systematic study of how to attain given ends with the minimum of means.

Schumacher gives a fine *normative* principle for economic reform. The best economics is an economical economics. Just as the best government is the least government. All these practical activities reach a peak when they are so well and sufficiently done that they may be allowed to become unimportant.

People's Yellow Pages makes a better showing in the areas of food distribution and food production. There are ample entries on food co-ops and organic farming. Under "Housing" the reader is referred to Tenants' Rights, Community Centers, and Liberation Struggles, but there is nothing under Building or Construction or Shelter. Architecture has a few entries, one a "humanize the city" group, another devoted to community design, one on domes, plus the designer-plumber-carpenter-electrician we mentioned before.

Well, the times are wide open for change of every sort, and the *People's Yellow Pages* is a good catalog of the ingenuities of people who are striking out in new directions. In itself, the directory is a splendid piece of publishing, low in cost and professional in execution.

One group that ought to be in *PYP,* but doesn't seem to be, is the New Alchemy Institute, which has two centers, one at Woods Hole, Mass. 02543 (Box 432), the other in Santa Barbara (15 West Anapamu), Calif. 93101. The Woods Hole center now has a farm where people are working on various forms of intermediate technology for small-scale agricultural self-sufficiency. The members there are developing solar heating for a washing machine (a simple, wooden one), windmills and turbines for capturing wind power to run a generator, with recycled batteries to store the electricity. Multiple sources of energy will include methane production. They have made large domes which have a double polyethylene skin, for use as covers for a winter vegetable garden and fish-culture pools. Directions, with drawings, are given for making these domes in the current newsletter of the Institute, issued at Woods Hole. They are also building the units for "an aquatic polyculture system fully integrated with terrestrial agriculture." This means, so far as we can make out, having an algae breeder to feed the fish in a fish farm. A three-page article describes the stages of progress in this venture. Already the pond-produced algae have eliminated the need to buy commercial fish food, and other foods used for fish are developed on the farm. The fish raised are *Tilapia,* which are good and nutritious eating.

Who are the New Alchemists? They are a group of science-minded people, or scientifically trained people, who plan to devote their lives to making ecologically sound applications of scientific knowledge in behalf of those who are attempting "to build ecological alternatives for the future." One of the current research projects is the fish-raising experiment. Then—

> The second peoples' research project involves a long-range scheme to establish the strains of vegetables and fruits especially suited to farming without poisons. Although food crops have been chosen for millennia for their ability to stand up under the rigors of cultivation, plant breeders in the 20th century have not concerned themselves with the natural resistance of most food plants to insect pests. They have assumed that biocides would be used, and it is quite possible that some resistant varieties have all but disappeared as a result of this short-sightedness. There is little knowledge at the present on varieties of edible plants especially suited to an organic, ecologically designed agriculture.

During the first year of this experiment, they planted ten varieties of cabbage from ten seed producers, in 43 variety/producer combinations. Cabbages were chosen because of their peculiar vulnerability to insect pests. To make a sad story short, they lost the whole crop to cabbage butterfly larvae, but found that damage varied with species. Cabbages suffering the least are naturally of interest and the results of the experiment are being compared with similar studies carried on in Santa Barbara.

Another experiment (at Santa Barbara) is in companion planting, "in which the vegetables are intercropped with flowers and herbs in various combinations and densities." The results will be compared with the yields and pest populations of monocrops. Another principle is being worked on:

> If all of us lived under the rule that no wastes should leave their place of use, and the laws would let us, then a dramatic step towards environmental restoration would result. We are working on a system where wastes are incorporated into a biological system instead of destroying somebody else's. The accompanying illustration shows our first attempt which involved a pond culturing system that collects household wastes and sewage in a modified greenhouse, situated over a small pool. Inside algae, aquatic plants, fish and clams and a variety of insects are cultured and fed to chickens and larger edible fish. The cultured organisms for their part, extract and purify the waste material. The remaining liquid is used to irrigate crops and gardens. In this system it is the wastes and the sun which are the primary sources of energy, and sewage which is ordinarily a problem can become a solution when dealt with on a small scale by providing protein and enriching the local soils.

Using scrap lumber, the total cost of the installation was about $70.00.

The things going on at the New Alchemy Institute are an exciting form of research.