VOLUME XXXI, NO. 49
DECEMBER 6, 1978

INTANGIBLE REQUIREMENTS

DRIVING through the wide-open spaces which separate one California city from another can be an exhilarating experience—the valleys, mountains, and deserts (not many rivers) are a delight to the eye, and they go on and on—but it can also be depressing. Years ago Bob Hope defined a California desert as a region identified by a succession of gas stations with the empty intervals between punctuated by Burma Shave signs. On the road in California you can never escape the oppressive rhetoric of "Sell, sell, *sell,"* except for an hour or two at most. We understand that a New England state is now having some success in passing a law against billboards, which will make a splendid example for the other forty-nine. But the outraged indignation of business against such measures is fierce whenever they are proposed. You'd think, if you listen to the arguments, that the fabric of civilization will rot or unravel if promoters are no longer free to deface the landscape.

It isn't just billboards which are offensive. Some years ago, after a bus ride from Los Angeles to San Francisco, Joseph Wood Krutch wrote for the *American Scholar* (Spring, 1965):

> I got the most extensive view I ever had of what is now called Sloburbs. Also the fullest realization of their horror. Nowhere are they worse than in the Los Angeles area, and nowhere are they more extensive. For several hours the same dismal scenes change so little that it is hard to believe that one is moving at all. Gas station, motel, car lot, bar, hamburger stand; then gas station, motel, car lot, bar, and hamburger stand all over again, all bathed in the hellish glow of neon.

Krutch lived in Arizona and driving home he realized that the whole country has succumbed to similar onslaughts:

> Everything looks impoverished, random, unrelated to everything else, as though it had no memory of yesterday and no expectation of tomorrow. . . . Poverty, I reminded myself, creates slums and slums can be even uglier. But I wondered if ever before a prosperous people had consented to live in communities so devoid of every grace and dignity, so slum-like in everything except the money they represent. They are something new and almost uniquely unattractive—neither country nor village nor town nor city—just an agglomeration without plan, without any sense of unity or direction, as though even offices and shops were thought of as (like nearly everything else in our civilization) disposable and therefore not worth considering from any standpoint except the make-do of the moment. . . .
>
> Why should an abundant society be content to accept communities so obviously the antithesis of that "gracious living" that the service magazines talk about and declare to be nowadays open to all?

The little shops, alas, where you didn't feel the pressure of aggressive selling all around you, are almost gone, replaced by slick and monotonously similar chain-store outlets in which many of the clerks know little or nothing about what they are there to sell. Is it too much to say that only the cash nexus holds people together these days? How long, one wonders, will humans put up with this as an acceptable "quality of life"? There are naturally wholesome longings and suppressed decencies in people everywhere, but they don't seem strong enough to support sensible decisions. If a design engineer in a big car manufacturing concern, for example, wants to introduce some intelligent changes in a new model he is working on, he knows that he will have to satisfy the sales department and conform to what they are planning for the advertising campaign. Otherwise, his design will be rejected. There are parents who try to teach their children a few songs which are not TV commercials, but the competition of catchy inanity is hard to beat. There are shoppers who go out of their way to patronize co-ops, but not enough of them, and housewives these days, many of whom work, have

little time. Convenience becomes a necessity, so there is compromise after compromise. Except for a few heroes and heroines, the stacked deck takes the game.

This stripping of the environment of all signs of "grace and dignity" is reflected in the arts. Read a "serious" modern novel or two, then turn to what Stephen Koch wrote some years ago to see the accuracy of his verdict:

> The hero of contemporary fiction is the Nowhere Man and his locale is the Nowhere Land, where he makes all his Nowhere plans for Nobody. The Anguished Self is placeless and spaceless, and his art merely presents us year after year with a chronicle of self-humiliation, self-doubt, self-hatred, and (not to put too fine a point upon it) masochism in a scale that I'm sure has been scarcely imagined since the fifteenth century. The heart of the narrative is action, while our ideal seriousness is an account of impotence and the incapacity to act. That paradox has a certain richness, but it seems to me that its possibilities are utterly exhausted by Beckett's genius, and that we should take our greatest living writer seriously when he says it's time to put it to rest. (*Saturday Review*, Dec. 27, 1969.)

Well, a lot of people are beginning to feel this way. They are starting in to make changes in their lives. What is the issue, in practical terms? How can people get rid of their "always selling" environment? Almost anyone will tell you that there is no use in going into a manufacturing business unless you can expect and plan to dominate the national, or even the international, market. You need the volume in order to get the unit price down to where you can compete. As a result of this requirement there are all those one-valued people who feel compelled to think in terms of "more sales," and of nothing else. For them it's a fight for survival, and Darwin is defense of their view.

But changes are going on. Ralph Borsodi showed one way of changing, years ago, in his *Flight from the City* (first published by Harper in 1923, and now available as a Harper paperback). Borsodi, who died only recently, was of course an exceptional man, an accountant who taught himself subsistence farming and—with the help of an extraordinarily talented wife, a dress designer who learned to weave fine fabrics and make her own clothes, in addition to canning and preserving the food her husband raised in the garden—succeeded in competing with the mass producers of food, shelter (he built their house out of stone), and clothing. He kept books on everything they did, to prove his case: People can make a better life for themselves than mass production will allow.

Another point would be that if you want to get rid of the "selling atmosphere" in the surrounding environment, the only way to do it is to generate a better atmosphere of your own. What people do by themselves creates a measure of immunity to the growing ugliness and meaninglessness of the times. Then others notice and begin to do likewise, strengthening the atmosphere for still more people. The Borsodi-ites around the country have been fairly numerous, as these things go, and the example they set nourishes the blood-stream of the organism of change. And while Borsodi was getting his "independence" projects under way in Suffern, New York, Arthur Morgan, in Yellow Springs, Ohio, was thinking and writing about the ways and needs and values of small community. He was also a *builder* of community, starting with the resuscitation of Antioch College in 1921. Probably no one has written more intelligently and inspiringly on community as a way of life. (See his biography by Walter Kahoe, published by Whimsy Press in 1977.) An enormous—really immeasurable—impetus to change was provided by E. F. Schumacher, whose *Small Is Beantiful* is still selling well and, more important, being carefully read. Some indication of the number of people who have begun to act on Schumacher's ideas—or rather ideas they have now made their own—is found in No. 7 of the *Intermediate Technology Report* (Summer, 1978), which embodies a "selected directory of Intermediate Technology people and organizations in the United States"—a directory by no means

complete, but made up of the persons and groups that the Intermediate Technology group in Menlo Park (Calif.) have worked with in spreading Schumacher's conceptions and program.

The editor of the *Report*, Patrick Long, tells about a project that has been begun by this group (556 Santa Cruz Ave., Menlo Park, Calif. 94025):

> What we're embarking on with our Small Scale Fabric Production Project is simply an extensive study (leading to eventual prototype development) of the entire process of small scale fabric production all the way from "sheep to suits." We will initially be concentrating on wool, but we will be keeping an eye on other natural fibers as well as synthetics that can be produced from renewable sources such as rayon from wood. . . . we will be exploring the feasibility of the development of the "appropriate technology" for a small mill operation. . . . This will include surveys of existing technologies and current developments as well as developmental and design work for new equipment. The project will not limit itself to the development of shearing, scouring, carding, spinning or weaving equipment exclusively, however. Many of the problems of the small producer (and this applies to almost anything, not just fabric) have little to do with the actual equipment. The maze of regulations, tax structures, legal requirements and the lack of a reasonable marketing structure for many small industries make the small business a very difficult proposition. We will attempt to address all these areas.
>
> The voters of California have recently approved drastic tax cuts which foreshadow major changes in how communities support themselves and their services. Local control and self-reliance will depend on a greater degree of local production of the goods and services that support the residents of the community. It is time that all the talk about smaller scale and "appropriate" technologies must be turned into actual machines, laws, distribution systems and, most importantly, *workplaces* where people are earning their livelihood. If we start from the idea that the basic necessities of life are (simply stated) food, clothing, and shelter, our fabric project tackles the area that so far has received little attention. But our major focus will primarily have to be on making the small enterprise economically viable. Without that, the rest is just talk.

Organic gardening is off to a good start, with a growing number of organic farmers able to make a living from what they raise—or at least enjoy healthier lives and children—as the impressive circulation of the Rodale publications (*Organic Gardening* and *Prevention*) shows; and perhaps from efforts like the one in Menlo Park, sensible, well-made clothing may eventually become available and might, given time, free people of the ridiculous costs and waste involved in rapidly changing fashions.

Another good sign (in the directory) is the listing of the *Briarpatck Review* (330 Ellis St., San Francisco, Calif. 94109), voice of the Briarpatch Network, "dedicated to the principles of right livelihood and a diverse and healthy small business sector." These people regard business as a means of meeting genuine needs instead of the nervy activity of creating "needs" in order to peddle products we might well do without. They are people who, presumably, would never think of consulting the Gross National Product in order to determine the health of the country. When you consider how that ghastly total is accumulated, its use in arguments about the welfare of the people takes on the odor of obscenity.

What is the value of looking up some of these people and finding out what they are doing? Well, the experience of persons who are devoting themselves to constructive change is always usefully informing. The encounter with Establishment modes of doing business calls for a great deal of patience and sagacity, as well as imagination and persistence. Being on the Right Side isn't enough. You have to find interstices in the system and use their odd dimensions as places to begin. A new application of Yankee ingenuity is called for; fortunately, it still exists, as readers of journals like *Rain*, *Self-Reliance*, and the New Alchemist publications are continuously revealing (not to leave out the Schumacher-founded quarterly based in London, *Appropriate Technology*).

But then, after you have gone through a few of these papers, the limitations of the printed word may seem sadly depressing. You can't really find out from reading how to make a new small business "go the other way." Managing mere survival, to say nothing of moderate success, usually becomes the goal. And as James Robertson casually remarks in *The Sane Alternative*, the attempt to work toward a "Sane, Humane, Ecological Future" also "appeals to quite a large number of cranks."

All this writing about good things to do sometimes seems like the symptom of a disease—the disease called civilization. Yet in this case it is a symptom suggesting recovery. When things go wrong—when practically everything is going wrong, as Robert Heilbroner noted in *The Human Prospect*—people need to talk about it, and it is natural for there to be endless discussion of what might make them go right, and how to go about it. When we get there we won't need so much talk, but meanwhile anyone who tries to keep track of all this flurry of effort and reporting is likely to feel something like Thoreau, who said he was in inspector of snowstorms. Happily there is another way of looking at the flurry. In the Spring, a vast blizzard of seeds blows in the air—billions more than will ever come to flower—and this is apparently nature's way of assuring the continuance of life.

However, unlike laws and doctors' prescriptions, all this writing about change doesn't tell you what to do. Not precisely. Clear directions are only for ways established in the past—and our past doesn't work any more. Seeds bear coded information which is practically infallible, given the right conditions, but the seeds of socio-moral change won't germinate without the seminal inventiveness of the one who comes across them. He has to originate, activate, and implement, more or less by himself, although he may find some companions after a while. Eventually, a "movement" may be said to exist, but if the concerns of organization have priority, then something awful may happen to the undertaking. It becomes infected by the past. You see this in the health food business and various other once well-intentioned undertakings, the sponsors of which suppose they cannot succeed without borrowing the distribution techniques of the acquisitive society.

This is a sad thing to encounter. What sort of a society or culture is it that blights with *human* failure whatever begins to be successful in status quo terms? Why can't we have or develop institutions which foster self-reliance and originality instead of putting formulas in their place? Would they be something like a club of explorers who never lose sight of their commitment to independent discovery, and who do the kind of exploring that can be pursued without bureaucratic apparatus and tons of equipment?

"Alternative" writers tell about the good things happening and other things that need doing, and they tell about the obstacles that need to be overcome. They write about how government can and ought to help, and how it gets in the way, and they organize groups whose main function seems to be to try to push government in the "right" direction. They write about all these things because they *can't* write about what is really important—nobody can Plato couldn't, wouldn't, and said so, but what he did write was nonetheless effective. At least he made countless people think about what they ought to do, which was his purpose. So with the conscientious scribblers of the alternative society. The word is a good one—"alternative" comes down to meaning that its blanks must be filled in by each one.

The situation is something like that described by Michael Polanyi in *Personal Knowledge:*

> An art which cannot be specified in detail cannot be transmitted by prescription, since no prescription for it exists. It can be passed on only by example from master to apprentice. This restricts the range of diffusion to that of personal contacts, and we find that craftsmanship tends to survive in closely circumscribed local conditions.

Is there a connection between this psychological reality or mystery and the meaning behind "small is beautiful"?

Polanyi continues:

> Again, while *the articulate contents of science* are successfully taught all over the world in hundreds of new universities, *the unspecifiable art of scientific research* has not yet penetrated to many of these. The regions of Europe in which the scientific method first originated 400 years ago are scientifically still more fruitful today, in spite of their impoverishment, than several overseas areas where much more money is available for scientific research. Without the opportunity offered to young scientists to serve an apprenticeship in Europe, and without the migration of European scientists to the new countries, research centers overseas could hardly ever have made much headway.
>
> It follows that an art which has fallen into disuse for the period of a generation is altogether lost. There are hundreds of examples of this to which the process of mechanization is continuously adding new ones. These losses are usually irretrievable. It is pathetic to watch the endless efforts—equipped with microscopy and chemistry, with mathematics and electronics—to reproduce a single violin of the kind the half-literate Stradivarius turned out as a matter of routine more than 200 years ago. . . .
>
> In effect, to the extent to which our intelligence falls short of the ideal of precise formalization, we act and see by the light of unspecifiable knowledge and must acknowledge that we accept the verdict of our personal appraisal, be it at first hand by relying on our own judgment, or at second hand by submitting to the authority of a personal example as carrier of a tradition.

Here Polanyi speaks of a form of self-reliance as the foundation of authentic knowledge. It is of the essence of culture and of the formation of culture. He points out that people learn to do new things without becoming fully conscious of how they learn:

> This is the usual process of unconscious trial and error by which we feel our way to success and may continue to improve on our success without specifiably knowing how we do it—for we never meet the causes of our success as identifiable things which can be described in terms of classes of which such things are members. This is how you invent a method of swimming without knowing that it consists in regulating your breath in a particular manner, or discover the principle of cycling without realizing that it consists in the adjustment of your momentary direction and balance so as to counteract continuously your momentary accidental unbalance.

Polanyi is talking about the kind of knowledge or know-how that can't be put in an operations manual. This is exactly the sort of communication problem that present-day change-agents are up against. All they can do is write better and better manuals, and hope for the best. Only poets and geniuses can do a little more, and they have their limits. Things may go better when we realize that this is all that can be done, and perfectly normal in any society, but understood and accepted in the good ones.

REVIEW
RESTORATIVE LABORS

SCHOLARS are apparently not of one mind concerning the importance of Pythagoras in the shaping of Western thought. While Giorgio de Santillana, who teaches the history of science at M.I.T., speaks (in *Hamlet's Mill*) of a "great worldwide archaic construction" which existed before the ancient Greeks, but was preserved by Pythagoras—and was transmitted in "tantalizing fragments" by Plato, who knew "the language of archaic myth"—the historians of Greek philosophy, according to Prof. Mary Carman Rose (Goucher College, Maryland), ignore or denigrate Pythagorean metaphysical teachings and the underlying value of his ideas for both philosophy and religion. Writing to spur renewed study of Pythagorean thought and its influence (in the October 1975 *Aryan Path*), Prof. Rose draws together the insights of various religio-philosophic traditions—Taoism, Vedanta, Platonism, and the Cabala—to show the similarity of their content with Pythagorean teachings. All these schools, she says, shared in a common conception of preparation and discipline in metaphysical inquiry. Wider recognition of this, Dr. Rose proposes, would make it known that the work of Pythagoras provides "clues to a family of metaphysical views which have been accepted in many parts of the world and in many generations."

Interesting evidence in support of this view is supplied by a London professor of architecture, Keith Critchlow, whose recent book, *Islamic Patterns* (Schocken, 1976), shows the strong influence of Pythagorean teachings in both Islamic mysticism and architectural design. This writer says:

> The most decisive evidence for the influence and transmission of Pythagorean philosophy—in its correct meaning of "love of wisdom or knowledge"—is particularly seen in the works of the Brotherhood of Purity . . . and of the philosopher Suhrawardi. . . . The Brotherhood of Purity . . . speak of their indebtedness to and respect for the Samian Master: Pythagoras was the first who spoke of the nature of numbers. He taught that the nature of numbers is in relation with that of nature.

The purpose of Keith Critchlow's book is to show the metaphysical basis of Islamic design, which employs Pythagorean mathematical constructions. This current in Islamic history is so important that the author speaks of the broad, cultural foundations which Pythagoras gave to the East as well as the West:

> The supreme oath of the Pythagorean philosophical community was "By him who gave the fourness to our soul," and the aim of the community was a purification based on the same law and measure that governed the cosmos, and which in the terrestrial sphere take the form of rhythmic relations in the form of music, song, dance and ritual. Rhythm partakes of and is governed by measure and can be stated in mathematical proportions; hence there was in the community a great enthusiasm for and devotion to the study of mathematics as a source of Divine Wisdom. Four was the number symbolic of justice as it represented or contained the perfect harmonious proportion.

The philosophic and mathematical foundation of music in Platonic thought is the subject of a new book by Ernest G. McClain, *The Pythagorean Plato* (published by Nicolas Hays Ltd., Stony Brook, N.Y. 11790, and distributed by Great Eastern Book Co., 1123 Spruce St., Boulder, Colo. 80302). Plato, a follower of Pythagoras, was both philosopher and artist, and Dr. McClain shows that music is treated by Plato as a key to cosmology and an expression of philosophic metaphysics in sound. Of this scholar's approach, Siegmund Levarie has said:

> Dr. McClain's method is simple enough: he recognizes music as the one force capable of projecting a philosophic synthesis. . . . His approach, neglected for centuries, is anything but new. He learned it by taking Plato literally. Plato insists on the superior role of music in the education of the whole man. In *Phaedrus* he writes: "The soul which has seen most of truth shall come to birth as a philosopher, or beauty lover or fervent musician" (248d). In the *Republic* he writes: "Education in music is most sovereign, because more than anything else rhythm and harmony find their way to the inmost soul" (3.401d).

By the beginning of the Christian era, Dr. McClain says, "Plato's mathematics had become a riddle," and his book is an endeavor to restore this lost understanding in relation to the musical art and the craft of tuning instruments. Various modern scholars, named by the author, have worked on this project, and he makes this summary in his introduction:

> The result is a thesis which none of us could have anticipated: not only are all of Plato's mathematical allegories capable of a musical analysis—one which makes sense out of every step in his arithmetic—but all of his allegories taken together prove to be a unified treatise on the musical scale so that each one throws light on the others. However, it is perhaps even more remarkable that, when the *Republic*, *Timaeus*, *Critias*, and *Laws* are studied as a group—as a unity—it then proves possible to explain virtually every Platonic mathematical riddle with help from related passages, that is, in Plato's own words.

Following is the author's comment on the *Republic:*

> The myth of Er closes the *Republic* with the description of how the celestial harmony sung by the Sirens is actually tempered by the Fates, Lachesis, Clotho and Atropos, who must interfere with planetary orbits defined by integers in order to keep them perfectly coordinated. In Plato's ideal city, which the planets model, justice does not mean giving each man (man being symbolized by integers) "exactly what he is owed," but rather moderating such demands in the interests of "what is best for the city" (412e). By the 16th century A.D., the new triadic style and the concomitant development of fretted and keyboard instruments transformed Plato's theoretical problems into pressing practical ones for musicians and instrument makers. With the adoption of equal temperament about the time of Bach we made into fact what for Plato had been merely theory. Musically the *Repablic* was exactly two thousand years ahead of time.

The myth of Er gives the story of a man who seemed to have been killed in battle, but who revived—"and, come back to life, he told what he saw in the other world." (It may occur to more than one modern reader who turns to the *Republic* to refresh his memory of what Er described, that there is at least a "family resemblance" between this account and the numerous similar reports collected in the works of Elisabeth Kubler-Ross and Raymond Moody.) Commenting on the *ten* days while Er lay apparently dead on the battlefield, Dr. McClain notes that ten is a number treated reverently by Plato, since it is the number of points in the tetractys (represented by the Pythagorean triangle). "Ten is the age of the oldest child a philosophical politician can use to build a utopia, 10^2 years is the normal span of a man's life, and 10^3 years is the length of time between man's reincarnations."

No attempt can be made here to supply even the basic elements of Pythagorean or Platonic arithmetic. A century of assiduous scholarship is behind this book, with doubtless more to be learned concerning so obscure a subject. But for those interested in mastery of what is presently understood, Prof. McClain's study seems an ideal source. He says in his introduction:

> In the pages which follow I shall suppress most of my own debts to von Thimus, Levy, Adam, Taylor, and Brumbaugh among modern scholars, and to Aristotle, Plutarch, Ptolemy, Nichomachus, and Proclus among the ancient ones, in order to let the reader enjoy the experience of learning Platonic arithmetic directly from Plato. He speaks in the archaic language of pre-Euclidean mathematics. His musical puns are incessant and often untranslatable. There is extreme economy in his formulas. He loves metaphor with multiple overtones of meaning. He fuses comedy with "tragedy" (meaning high seriousness) exactly as he suggests at the end of the *Symposium.* His words glow with a vitality none can match. I may trespass here on his intent never to put into words a formal exposition of a subject to which he devoted many years of his life, and agree wholeheartedly with him in his claim that, "if there were to be a treatise or lecture on the subject. I could do it best" (*Letter* G). He was referring to his own philosophy, not musical mathematics; his explanations of either would have been "best."

Dr. McClain's concluding remarks are of general interest:

> Although Plato "has a reputation for deprecating arts and crafts, and for short-changing physical reality and empirical encounters with it," Robert Brumbaugh points out that Plato himself actually

does neither: "Plato's own references to the arts and crafts, . . . are ubiquitous and encyclopedic." The art of mathematics holds a very special place in Plato's esteem: it is essentially an art of changing viewpoints, of alternative perspectives, and it gives to those who pursue it seriously a release from the imprisonment of a single viewpoint—a real freedom of thought—characteristically Vedic as well as Platonic.

Alfred North Whitehead summarized the history of Western philosophy as essentially a footnote to Plato. But Plato himself, de Nicolàs observes, is but a kind of footnote to even more ancient philosophers. With the rise of Aristotelian rationalism and the later emergence of theological dogmatism, Plato's mode of thinking was misunderstood and misrepresented, and with fateful consequences. Plato himself invalidates all efforts to ground dogmatic philosophy on his authority. Thanks to the survival of the whole corpus of his writings, Plato remains the only truly valid—or even essential—commentator on himself. The vision of the world which he embodied—as "a visible living creature . . . a perceptible god"—is a vision we are trying to recapture.

COMMENTARY

DO-IT-YOURSELF FOR COMMUNITIES

THE second thoughts coming after passage of California's notorious "Proposition 13"—which cut homeowners' property taxes by more than half—suggest that the eager self-interest which animated the vote is not a good guide for ordering economic affairs. Writing in the November *Harper's,* Arthur Blaustein points out that the tax relief does not apply to new construction—which will be assessed at current market value—and that this is bound to discourage building, while, at the same time, the market value of rental property will soar, since the tax reduction has made it so profitable. The beneficiaries of the measure are the big companies that don't move around much—not nearly so often as families. Now, when you buy, the property will be assessed at current market value. Proposition 13, Mr. Blaustein makes clear, is another "Catch 22."

Meanwhile the people are being punished for their vote. Various services complain that their resources are badly diminished. Firemen say they don't have the budget to put out forest fires promptly. Schools are beginning to charge for bussing and are raising the price on children's lunches. Libraries are closing down or open for only part of the day.

The argument may lengthen into a discussion of what sort of alternative bill the voters *should* have passed, but pocket-book control of politicians under a system of bureaucracies as extensive as ours is not likely to work well. Politicians are expert at hiding what people are actually voting for. They are busy at it 24 hours a day, while citizens (except for political specialists) are able to give such questions only fragments of their time.

Is there anything to be done? Patrick Long (see page 2) puts his finger on one thing citizens can do: *Take back some of the responsibilities delegated to government.* Any literate person ought to be able to help keep a library open. for example. The libraries are *ours* and we shouldn't allow them to stay closed until three o'clock in the afternoon! Why couldn't libraries be run almost entirely by citizens? The Marthas might be interested. Libraries are a part of social housekeeping.

People who start working at such things will learn a lot about community health and will recognize more clearly, as Patrick Long says, that local control and self-reliance need "a greater degree of local production of goods and services that support the residents of the community."

CHILDREN
. . . and Ourselves
NOTES ON COMPULSION

THERE are a lot of things which are good if you do them because you choose to—things which may become more or less bad if doing them is compulsory. Getting an education is one of these things. John Holt has been writing about the evils of compulsory education for at least five years, and is now publishing a newsletter on the subject—*Growing Without Schooling.*

There is of course something to be said on both sides of this question. Probably the best defense of public school education is *The Great Anti-School Campaign* by Robert M. Hutchins (available from the Center for the Study of Democratic Institutions in Santa Barbara), although the primary emphasis in his arguments is not in behalf of compulsion (which he nonetheless approves). It is an obligation of the state, he proposes, to provide children free education. There is considerable cogence in his conclusion about the public schools—that, "bad as they are, we cannot do without them."

There are obvious practical problems. What sort of disaster would overtake nine-tenths of the families in the United States if tomorrow all the public schools closed their doors? People are habituated to shipping their children off to school in the morning. Perhaps they shouldn't be, but a change in so well-established a custom will take time—time, and basic alteration in the way we think about family, community, and life. Holt has set himself the task of assisting this changing in outlook among those ready for it.

Then there are the minorities and inner city inhabitants who need to obtain a nodding acquaintance with standard English in order to manage at all well in our world, and might never have even an opportunity to learn it if they weren't obliged to go to school. But what may be the price of that opportunity is reported in various depressing books such as Kozol's *Death at an Early Age,* Dennison's *The Lives of Children,* and Kohl's 36 *Children.* It sometimes seems that the only good schools in such areas are the rare ones which a few observant writers are able to tell hero stories about. No doubt there are unsung heroes in bad schools that only some youngsters and their parents know of, but these achievements against odds do not make an argument for compulsory education. They are rather a testament to the human beings who prove strong enough to create an atmosphere which reduces the effects and even the presence of compulsion, so that children are able to feel this personally generated freedom and joyfully respond. After all, there can't be any education except in a trusting relationship. Compulsion is the enemy of trust.

Generally speaking, the defense of compulsory education rests on the claim that we are faced with a condition, not a theory, and it has only the force of a lesser-of-two-evils argument. While the defense is not without weight, it loses its meaning if the reality of a first principle of all education is ignored: In social terms, *the purpose of education is the reduction, and finally the elimination, of compulsion.* When we compel children to go to school we undermine this principle. We don't exactly stomp on it, but we compromise it. For many, the compulsion may be only a shadow in the background, hardly noticed. After all, a lot of children like going to school and never see a truant officer. They don't *feel* compelled. Nor do parents think of compulsion when aghast at the thought that perhaps their mischievous boy will be removed from school for intolerably rebellious behavior. All such matters need consideration, but if we regard the resulting compromise as "ideal," simply because it seems to meet our needs, we are in both intellectual and moral trouble—trouble that might get worse.

Whatever is delegated to government—especially if it is a function of care—becomes subject to measures of compulsion. That is the chief reason for government—to exercise

necessary compulsion. And if you give government a job to do, it is bound to use the method (coercive power) of its primary role. If a thing like going to school is held to be good, why, then, the government will make you do it. Everything you ask the government to do for you will come back to you as a law, a rule, a requirement. This is not a "fault" of government, but its *nature.* What fault there is, is ours.

Some years ago, from experience and talking to teachers, we learned that adult education programs often have qualities you don't find in other public education offerings. First of all, the teachers are teaching in the way that they want to teach, often accepting less pay for this privilege. The students are coming to learn something—what they *want* to learn—and not because they need a certificate of some sort. In such classes there is no fear, no threat, few irrelevant requirements. Something wonderful can happen in such places. What everyone does is voluntary.

Many of the adult or continuing education courses still have these virtues, but an article in the October *Progressive* on "The Pitfalls of Compulsory Adult Education" illustrates the creeping infection of political remedies which resort to compulsion. The writers, David Lisman and John Ohliger, show that more and more adults are obliged to go back to school in order to hold their jobs or secure pay increases:

> The extent of the problem becomes manifest when we examine some of the many areas in which continuing education is compulsory. The most rigidly entrenched are the military services and public school teaching. Few privates—or even generals—are in a position to turn down orders or "suggestions" that they take courses. And the "Mickey Mouse" in-service courses required of teachers are a notorious waste of time.

The idea, of course, is that if you go back to school you'll make yourself more competent. Competence is desirable, so "Some form of continuing education is now required for fourteen professions in forty-five states, and most other states are considering such laws or regulations." Apparently the legislators who have these measures in mind have not read Ivar Berg's *Education and Jobs: The Great Training Robbery* (Praeger, 1970), a full length study showing how baseless is the assumption that going to school makes people more effective on the job. More education of the sort described only builds a larger "education industry," according to Prof. Berg, who was unable .to find evidence that continuing education improves work performance. What he did find was that administrators like to believe it does, especially if a piece of paper declares that someone has completed a certain amount of work at school. The same attitude is found in industry, although government has probably shown the way. In a country in which so many people believe that the Government is author of all things good, what can legislators be expected to do but pass laws requiring "good things" to happen?

According to the *Progressive:*

> The Federal Government vigorously supports mandatory continuing education in the health field. In 1972, the Commission on Medical Malpractice of the Department of Health Education, and Welfare recommended that states revise licensing laws for *all* health occupations "to require periodic reregistration . . . based on proof of participation in continuing medical education programs." . . .
>
> And the health field is merely symptomatic of what is happening. Twenty-three states now subject certified public accountants to continuing education, and seven states require it for lawyers. Many local, state, and Federal employes, such as policemen, firemen, and agricultural extension agents, are compelled to enroll in courses to qualify for pay raises, promotions, or tenure. There are similar pressures on architects and even on members of the clergy. All indications are that mandatory continuing education will become a fact of life for every professional subject to licensing.

The account of the areas where compulsory education exists or is imminent goes on and on:

> The 1976 Higher and Vocational Education Act authorized $20 million in 1977, ranging up to $40 million in 1979, for the development of "lifelong learning," a broadly interpreted concept that includes "educational activities designed to upgrade

> occupational and professional skills." In support of the bill, Congress stated that "the American people need lifelong learning to enable them to adjust to social, technological, political, and economic changes."

This article concludes on another note. The writers point out that voluntary efforts toward "individual and informal educational activities" may be a counter-force opposing the "compulsory instructional society." (It was the ugly and deceptive realities of this system which led Ivan Illich to write *DeSchooling Society.*) According to Lisman and Ohliger:

> There is some basis for hope in the nonstandard alternatives offered by Paulo Freire and his associates in small, politically liberating discussion work with illiterates and others in the radical educational activity of Myles Horton and the Highlander Research and Education Center, which is now undergoing a resurgence under new, young leadership; in the new learning exchanges where no credentials are required or certificates awarded, and in the free universities, which are experiencing a rebirth. A new book, Ronald Gross's *The Lifelong Learner* (Simon and Schuster), is gaining national attention.

Finally, as the authors say, while there may be worse things in the world than compulsory adult education since "mandatory education is so closely linked to the technological thrust, resistance and the fostering of alternatives may be one of the best ways we can stimulate public attention. . . ."

FRONTIERS

The Cost of an Addiction

BY coincidence, almost on the same day we ran across two informing items about sugar—one on how the Western world came to have it, the other on the few people sugar made rich and the many it impoverished. There should have been a third item—on the people, especially children, who are now being made sick by sugar—but perhaps there is already enough of such material in circulation, needing only a wider reach.

History first. The following is gleaned from an article by Harvey Day in the British monthly, *Alive* (for August), a sprightly vegetarian journal said by the publishers to have been begun (under another name) in 1848. Sugar cane, we are told, may have originated in Polynesia, but was brought to north Bengal in India many thousands of years B.C. The Chinese began growing it and learned from the Hindus how to extract the juice and turn it into sugar. In India sugar is called *gur* or *jaggery*, and is still made as it was hundreds of years ago, in large round cakes or dark brown lumps, something like what we call brown sugar, but coarser. Indian writers called it *sarkara* (Sanskrit) which means Indian salt. Mr. Day relates:

> From this root we get the Arabic *sukkar*, the Latin *Saccharum*, the Indian *succhero*, the French *sucre* and the English *sugar*. When an American asked George Bernard Shaw if he knew that sugar was the only word in the English language in which "s" is pronounced as "sh," he replied tersely: "Sure."

The Persians acquired cane by forays into the Indus Valley, and eventually it reached Rome, to be used as a medicine and a luxury. Sugar was known in Europe during the Middle Ages, but only the wealthy could afford it.

> Columbus took some canes to the Canaries and then to San Domingo, where a combination of sun, rain and rich soil made it grow faster and in greater profusion than anywhere else. Cane growing spread to Cuba, Mexico, and West Indies and round the world to the Philippines, Hawaii and Oceania. Sugar was the most profitable crop in the world and during the slave days it was described as "white gold."

Mr. Harvey also tells the story of beet sugar, discovered in 1573, but not developed until the middle of the eighteenth century, when the German chemist Marggraf learned how to turn beet juice into a solid substance. Beet sugar also made great fortunes for a few, but our interest here is in the exploitation of cane.

In *The Mediterranean and the Mediterranean World* (Harper Colophon Book), the French scholar, Fernand Braudel, gives an account of the impact of sugar monocropping on the lives of European islanders, back in the sixteenth century:

> . . . sugarcane . . . brought from India to Egypt, passed from Egypt to Cyprus, becoming established there in the tenth century; from Cyprus it soon reached Sicily in the eleventh century; from Sicily it was taken west; Henry the Navigator had some brought from Sicily to send to Madeira, which was the first "sugar island" of the Atlantic; from Madeira, sugar growing quickly moved to the Azores, the Canaries, the Cape Verde islands and beyond, to America.

The islanders, the historian says, could offer no resistance to the demands of the monocroppers:

> How many islands were invaded by foreign crops, whose justification lay solely in their position on Mediterranean or even world markets? Grown for export only, these crops regularly threatened the equilibrium of the island's economy. They were often responsible for threat of famine. . . . We can see this in exaggerated form, blindingly clearly in the islands of the "Mediterranean Atlantic": Madeira, the Canaries, Sao Tome, which were all literally ravaged by the monoculture of cane sugar, as colonial northwest Brazil was to be later. Madeira, which was originally a timber island, rapidly lost the major part of its forest cover to the sugar mills and their need for fuel. This revolution was carried out entirely in the interest of a Europe which was clamoring for the precious sugar, and not in the interests of the islanders themselves. For the tragedy of sugarcane is that wherever it is grown it prevents the growing of other crops in rotation and restricts the space available for food crops. This new arrival completely upset the old balance and was the more dangerous

> since it was protected by a powerful capitalism which in the sixteenth century was lodged in many quarters, in Italy, Lisbon, and Antwerp. And it was impossible to offer resistance. In general the island populations were unable to withstand this drain on their resources. In the Canaries, sugar was almost certainly as responsible as the brutalities of the first conquerors for the disappearance of the indigenous natives, the Guanches. And it was the sugar plantations which generalized the use of slave labour, leading to the enslavement of the Berbers of the African coast, whom Christian pirates from the Canaries would carry off in their raids, and particularly to the slave trade in Negroes from Guinea and Angola which in the middle of the century, again because of sugar, reached the shores of the American continent.

There was other monocropping harmful to the islanders—in wheat, vineyards, and olives—but sugar seems to have been hardest on the people whose lands were no longer available for food crops.

Thus the story told by Frances Lappé and Joseph Collins in *Food First* is not a new one, but began a long time ago. People who want to take charge of their own lives must learn to take charge of their agriculture, making it a friend instead of an enemy to all but the few. Knowing the story of how sugar came to be cultivated, how its large-scale cultivation affects both the region and the workers, and what the product does to the people who eat it in excess—largely because sales promotion has made sugar practically an addiction of civilized man—seems a prerequisite of any change for the better.

Notes on a useful publication: From England we have received the August *Turning Point*, the newsletter of "an international network of people whose individual concerns range very widely—environment, sex equality, third world, peace and disarmament, community politics, appropriate technology and alternatives in economics, health, education agriculture, religion, etc.—but who share a common feeling that mankind is at a turning point. This small publication (16 pages) contains information on worthwhile groups, activities, books, papers, and articles. Many of the writers named have been reviewed in MANAS. For copies write to Alison Pritchard, 7 St. Ann's Villas, London W11 4RU, U.K.