

AN OLD-FASHIONED VIRTUE

AFTER suffering the penalties and anxieties of several years of drought, Californians this year enjoyed the greenest spring in the memory of generations. The rains came—more than have watered the Los Angeles region since 1883-84—and lakes and reservoirs are filled to overflowing.

Water tables are up and for a while some well-heads spewed water through cracks in the plumbing. Farmers are expecting bumper crops, and rural fire departments anticipate plenty to do in the dry season, when the lush growth of spring and summer turns into fuel after the baking usual in July and August.

This comfortable situation lends curious poignance to an article on deserts and desertification which appeared in the *New York Times* for Aug. 28 of last year. The writer, Boyce Rensberger, said:

Long tinged with an air of mystery and romance in Western eyes, the world's great deserts—the Sahara, the Gobi, the Kalahari, the Arabian, the Sonoran, the Patagonian, and others—have seemed to be bleak and unchanging environments, other-worldly places with little connection to the verdant lands where most people live.

This outlook may have been harmless enough in the less technological past, but today it must be revised:

In fact, recent studies of global climate have shown the deserts to be integral parts of the weather systems that give some regions abundant rain precisely because other regions get little or none.

And intensive surveys of the earth's agricultural potential have revealed that while the productivity of arid and semi-arid lands is low, such land is essential to supporting the human race. About 14 per cent of the world's people, some 628 million, live in dry lands, almost totally dependent on a marginally productive environment that is rapidly withering.

What are people doing about this frightening trend? Well, the experts are assembling facts and holding conferences—one on desertification sponsored by the UN met in Nairobi last year to consider plans for halting the parching death of fertility. The African Sahel is not the only place where desert conditions are invading land where food once grew:

It is estimated that fertile, productive land is being denuded and destroyed at a rate of 14 million acres a year. Already about 43 per cent of the planet's land surface is desert or semi-desert.

Unless desertification can be slowed, some scientists say, fully one third of today's arable land will be lost in the next 5 years, while the world's need for food will nearly double.

What makes deserts?

Among the chief causes of desertification are overgrazing by live-stock, over-cutting of forests, improper tillage for crops and over-concentration of human and livestock activities around scarce water sources or settlements. Even irrigation, if it waterlogs poorly drained soils or deposits accumulations of toxic salts, can kill the land.

Such factors have operated for centuries but only in recent decades has the growth in human and livestock numbers intensified the pressures beyond the land's ability to recover. In the past the peoples of arid lands coped with the limits of their environment through a variety of traditional practices that minimized the impact on the land. . . .

Religious practices helped to sustain environments in the Rajasthan region of Pakistan and India. Because trees were held sacred, those that world not otherwise survive were maintained because people watered them regularly as acts of devotion.

Such traditional ways of coping with aridity are rapidly disappearing, largely through the impact of Western technology and ideas.

One of these "traditional ways" is exemplified by the Indians of the American Southwest. A letter of appeal for support from the National

Indian Youth Council (a body which has worked on "major Indian survival issues" for the past fifteen years) observes that for millennia the Navajos and others in the Southwest "have been able to farm, feed their families and others, and survive on arid land without destroying or misusing either the land or the water," then turns to the threat to their water supply by a group made up of coal and oil companies:

The all-powerful energy cartel is demanding enormous quantities of fresh water from the San Juan River [which waters portions of Colorado, New Mexico, and Utah, and joins the Colorado]. Even though the water from this river may not be sufficient for the human needs of the people along its banks.

The energy cartel wants it, for strip mining and for experimental coal gasification plants. Two processes that require huge amounts of land and water. When completed the land involved will be permanently destroyed and the water used, so threatened there is the possibility it will not be fit for any human need or use.

This program is provided for by the Synthetic Fuels Bill which, if passed, will deprive the Navajos—one of the poorest tribes in the country—of much of their water in the region of the San Juan, greatly reducing the land that can be farmed. While by treaty in 1868 the Navajos were promised both land and sufficient water for farming, fulfillment did not begin until 1976—108 years later—when the government instituted the Navajo Irrigation Project, planned to make arable 110,000 acres. At present the Navajos have only enough water to farm from fifty to seventy thousand acres of the committed land, and if the water required by the gasification plants is removed from the San Juan, much less land can be used. The National Indian Youth Council letter draws this contrast:

The life-expectancy of these proposed coal gasification plants is less than 25 years—so that by the year 2,000 the profits from these ventures will have been reaped, our land made wholly unreclaimable, permanently destroyed, and our water wasted.

But a successful farming project will be of lasting value as long as food is needed.

There is this detail on the use of water in agriculture and food production:

It takes 233 gallons of water to produce one quart of milk (for irrigation, alfalfa, hosing down a barn, and for the cow's thirst);

It takes 36 gallons of water to produce one pound of bread;

It takes 23 gallons of water to produce one pound of potatoes;

It takes 47 gallons of water to produce one pound of oranges. . . .

We urgently need your help. The giant energy corporations we are up against make millions in profits every year, at the expense of all the people in the country. These corporations have enormous financial resources to buy the testimony of experts and to propagandize their point of view.

These two stories—the *Times* account of desertification and the Indian report on the plight of the Navajo farmers—together provide both generalities and a particular case concerning loss of arable land and diminishing food supply, and we *need* both kinds of facts. By going back and forth from general to particular, and thinking about what ought to be done, and then what can be done, it may be possible to find an answer or two. What is the argument used to deprive the Navajos of the use of their land by taking away their water? The national need for energy is of course the answer. Lesser interests, it will be said, must give way before this all-important requirement.

But what about alternatives to costly and water-wasteful gasification of coal? Another set of generalities applies to this question. In an article in the *Nation* for March 18, Steven E. Ferrey shows the identity of government and big-business thinking on the subject of energy:

The current fiscal year (1978) budget for all forms of nuclear research, including military, is five times that of the \$319 million solar budget. And the bulk of the solar budget increase is directed toward large-scale and exotic centralized solar electric

systems, to be built by large corporations, rather than toward rooftop-scale devices. . . .

Can this direction be changed?

Solar technology has proven itself as a competitive source of heat, and is developing rapidly as a source of electricity. Hand-fabricated photovoltaic solar systems currently exhibit marginal generating costs of about \$15 per watt, ten times the cost of electric generation by conventional nuclear sources. However, several energy experts, ranging from Barry Commoner to ERDA-funded consultants, predict that a vigorously expanded program of research and procurement of mass-produced solar cells could produce electricity from the sun at half the cost of nuclear power. More important, opportunity for individual or community control of power would follow.

The *Nation* writer quotes Senator Gaylord Nelson, who puts his finger on what really stands in the way of full federal support for solar and other alternative sources of energy. The Wisconsin senator said:

The suspicion is unavoidable that absurdly low estimates of the solar contribution during the next twenty-five years are not of what the estimators think the country *could* do . . . but what they hope the country will do. Not because doing so little is in the best interests of the great majority of Americans and other people of the world but because doing so [doing more?] could possibly threaten existing investment in other technologies.

So, as Mr. Ferrey says, research priorities in the service of business-as-usual "foretell a future in which solar power remains the undernourished stepchild of an exorbitantly expensive and vulnerable nuclear age." And if the experts say that alternative energies can't really meet human needs, and the Synthetic Fuels Bill is passed, then the Navajos will lose their water and their land because the larger "national interest" requires it.

What is the long-term remedy for such situations? (There probably isn't any short-term remedy.)

If the things that intelligent people all around the country are doing is any indication, the only remedy is a general restoration of vigorous self-

reliance. Self-reliance is an old-fashioned virtue, one that has been put aside and forgotten during the past seventy-five or a hundred years. People stop relying on themselves for a variety of reasons, the most obvious of which is the power gained through organized action. Another reason is the efficiencies and economies of specialization. As this course is pursued, definitions of the good things in life are altered to conform to the new conditions. When action through organization becomes the only effective way of getting what you want, then ideology and conformity not only redefine what you want, but also revise the conceptions of righteousness and virtue. The good is limited to what bureaucratic organization is able to provide. Dissenters soon learn that they had better learn to like what they get through the channels of organization, or be satisfied with nothing at all. Decisions which once were made by the light of individual common sense and experience are now determined corporately, by administrators and managers. The requirements of the existing system define the necessities of management. The more centralized the system, the more abstract (intellectually, morally, and practically inaccessible) it becomes for the average person.

In an editorial in the January-February *North Country Anvil* (issued six times a year by a workers' co-op printing and publishing group, \$12.50 for a subscription—Box 37, Millville, Minn. 55957), the editor, Jack Miller, explains how rule by abstraction works:

Abstraction is that quality of interference that converts a straight-forward act (paying your share, controlling your means of transportation, making food for someone, getting raw materials, shaping the education of your children) into a function mediated by an external system. It is not merely the superintendent of schools who abstracts the educational process, it is the superintendent acting as the local agent of the national (federal-state-local) school system. It isn't that he personally decides how our children are to be taught, but rather that he approves the textbooks provided by Educational Books, Inc., which is owned by Network Television, Inc., which is owned by American Chemicals, Inc.,

which pays the development costs of its books with grants from the U.S. Office of Education, Curriculum Division, whose head is Dr. Soandso Smith, who took her Ph.D. at the University of America, where the superintendent took his, and where the president of American Chemicals is on the board of directors.

Isn't this an attack on the very heart and soul of progress, pithily expressed by the celebrated modern rule—Division of Labor? It is indeed, and that is why the best minds of the times have been so shaken by its effects, and driven to reconsider the pragmatic value of the old-fashioned virtues. For it is rapidly becoming apparent that while division of labor—or specialization and the increasing delegation of responsibility—is a mark and achievement of civilization *up to a point*, beyond that point division of labor makes for the weakening of character, the loss of self-reliance, the reduction of individuality, and the insidious spread of countless forms of first petty and then large-scale tyranny. This is what we are finding out in the present, and what a great many inventive American pragmatists are working to remedy.

Some of these pragmatists seem to have hit the nail on the head. They are working for the restoration of self-reliance. It isn't that the managers, administrators, politicians and big business executives are bad human beings; a much more sensible explanation is that, while fairly bright, they are misled by what they have been taught to do with their lives. Their self-esteem and feeling of meaning are at stake. Until quite recently they have been totally convinced that they were showing the rest of the world the way to human progress—American-style progress, which is best of all. Less involved people now recognize that our "progress" is slowing down and breaking up, but the managers of the status quo are too addicted to the past to change their views. And the people who feel dependent on them probably a fair-sized majority of all the rest of us—see great risks in daring to think for themselves.

The people now working for self-reliance are the ones who dare. Fortunately, their number is

increasing. As the material advantages of extreme specialization are diminished by waste and wither in quality, more and more people will begin to think for themselves, and the conversions to practical self-reliance will grow more frequent. And this, we propose, is the way great historical changes begin.

America—which of course includes Canada—is a loose-jointed spacious country and far from being all used up. There are countless ingenious ways in which people are able to reduce their dependence on system-produced goods and services. If the movement toward greater self-reliance gathers strength slowly, exerting the influence of exhilarating example, the practical effect will be to *shrink* the system without destroying it. Large numbers of people won't suddenly be thrown out of work, but there will be more opportunity for them to do a better, more satisfying kind of work.

This sort of change begins with people doing what they can in their spare time. As often as not, the spare-time activity grows into a good life. Maybe we can accomplish enough of a change in a generation or so. We can at least make long strides in the right direction. Jack Miller says:

In addition to pursuing spare-time careers in their off hours, an important minority of people now are working on their personal lives and living space, making themselves stronger, more independent, more thoroughly human. They are learning to function with simpler means—cooking from basic ingredients; seeking out a few good tools that last and can be repaired; walking or riding bikes instead of going by car; getting into activities that create (new knowledge, crafts, works of art) rather than consume, and which do not deplete resources, but leave the earth intact. . . . What we need to survive is not a global village but a globe full of largely autonomous villages (and neighborhoods and country communities).

The difference is crucial. With local autonomy, decisions and actions are a direct expression of the people themselves. As the system now functions, the least important powers are exerted locally, and the most important decisions are made by a handful of

"leaders" (financial, industrial, political, military, professional). The rest of us acquiesce.

You find this theme expressed almost everywhere, with increasing coherence and persuasiveness. In a long and effective review of *Food First in Rain* for February-March, Tom Bender concludes:

Food self-reliance depends on mass-initiative, not on government directives.

Self-reliance means not only mass participation but mass initiative, the initiative of people freed psychologically from dependence on authorities, whether they be landlords or government officials. Mass initiative is the opposite of individual self-seeking. It rests in awakening the confidence of people that only through cooperative work in which all partake and benefit equally can genuine development occur. . . . If food self-reliance is managed from above people feel they are working "for the government," not for themselves. People become "clients," not the motive force.

Meanwhile, *Self-Reliance*, published by the Institute for Self-Reliance (1717 18th St., N.W., Washington, D.C. 20009), declares in its twelfth issue (March-April):

Local self-reliance means the control of neighborhood wealth by and for the neighborhood. It means local production from local sources for local consumption. The goal of the Institute is to encourage self-reliance by demonstrating that the human scale is a viable option. . . . The motivation of low- and moderate-income community groups toward self-reliance is widespread.

Obviously, we are dealing here with an idea whose time has come.

REVIEW

ECHOES AND RESONANCES

A BOOK that recently came to us from the Eakins Press Foundation (which issued Harlan Hubbard's *Payne Hollow* four years ago)—not exactly for review, but because the friendly publishers wanted us to see their lovely production has made us complete converts to this view. We'd like other people to see it, too. It seems like a book which was put out because the idea was good, the material rich, and the occasion appropriate—as though there were no need to consider any other factor. Happily, foundations can do things like that.

Reading through *Union Jack: The New York City Ballet*, a paperback edited by Lincoln Kirstein, with photographs by Martha Swope and Richard Benson, is a growing delight. Everything seems just right. The topic opens up like a trip to some wonderful land or place. And the book itself is perfectly made—paper, typographic design, pictures, choice of contributors and what they write—all fine and fitting. The Balanchine ballet the book is about has this explanation by the editor:

Union Jack was the New York City Ballet's Bicentennial offering. Rather than once more exploiting native American materials, it was thought appropriate to turn to sources in ancestral Anglo-Saxon ceremonial still lively in secular ritual. In the tepid euphoria of quasi-official celebration, dimmed by an exhausted peace and clownish public scandal, it was deemed fitting to recall roots: Constitutional Monarchy (no written constitution, precedent only); the Mother of Parliaments; the sacerdotal function of professional soldiering canonized by Shakespeare, Gerard Manley Hopkins and Rudyard Kipling; the ancestry from Northamptonshire of George Washington, from Norfolk of Abraham Lincoln.

There are three sequences: the Scottish guards, a street scene in music hall style, and the drills and songs of the Royal Navy. When telling about the traditional dress and dances of the first sequence, Mr. Kirstein's prose compels quotation:

Before a huge, sprightly cut-out of a papery scarlet castellated town, and through its turreted archway brave with streaming banners, seven superbly kilted units in clan regimentals, sporrans, cloaks, bonnets, gaiters, march on stage to the marked beat of parade order. Their several tempt in marching are the stuff, the carded wool as it were, of the movement to be woven, comprising a metaphorical plaid of the dancing's overall design. At the outset, the dancers seem simple marchers; their unison walkings are proposed without ornamentation; in its stoic severity, this is not yet dancing. The measure is deliberate, insistent, impending rather than merely slow. The timing has been commandeered over periods of practice long enough to have established an immutable metric. An impression of implacable martial authority is vividly implied, in the accumulation and mounting declaration of the seven advancing blocks of bodies with their swinging sporrans, kilts and cloaks. Each individual marcher proceeds toward the footlights and, reaching a point nearest the public, salutes with an upthrust arm which proclaims a dancer apart from the soldier.

How well this is done! It articulates the transformation of the ordinary, the everyday, into an artform—a walking down the street into the "secular ritual" of marching men. Instead of going from A to B, the walkers become symbolists of a particular kind of walking—the walking to a beat, and with the style of men who may be killed tomorrow, who know it, yet answer to the requirements of the drill as though it were the last surviving rule on earth! Now it is a celebration of the qualities of humans and the forms they invent for remembering them lovingly and with pride. Not the doing, any more, but the echoes and resonances are what count.

We said the book is like going on a trip to some wonderful place. In mind while saying it was W. Macneile Dixon's *Hellas Revisited*. This scholar who knew the classical heritage of the Western world as intimately as the doings of his own family, finally visited Greece, then wrote a book on his travels. Wherever he went, he generated out of memory the splendors of the Greek past; he saw the sites and recreated their timeless aspect for his readers—one place after

another. The reader feels that he has not only been to Greece, but has lived there, with this wonderful friend, MacNeile Dixon, as mentor and guide.

Union Jack, as a book, makes the same sort of invitation. It takes you deep into all the pasts of the dance:

Droning pipes, shrill fifes, trumpeting brass launch a dance duel, increasingly acrobatic, between two chieftains in the balletic translation of sword dance and Highland Fling. Girls, at their respective and alternating entrances embroider similar steps with darting, needled *pointe*-work. . . . To a prolonged drum-roll tattoo, unrelieved by any other instrument, a fearsome tribe of amazons stirs up a storm of frantically fast steps mounting to a grand crescendo, which after so great an exercise of electrified muscle one expects must surely exhaust itself into some static breathless climax. But no; this proves to be but overture to a still further cataclysmic drumbeat of toe-shoes which indeed does finish in a torrential accumulation toward ultimate tableau, whereupon drums are silent and the orchestra resumes its full sonority.

Mr. Kirstein's tribute to Balanchine has the same intricate texture as the choreography he describes:

What he found amounted to a grand tactical plan, an assault of counterpoint worked out in kinetic asymmetry, yet ultimately to be balanced by symmetrical blocks of set units. Intricate shuffling and shuttling repeatedly recall woven skeins or strands, thick plaided steps, so that the swarming stage is a macrocosm of seven combinations in woven tartan patterning. One of the main marvels is the clarity in shift, the legibility of the entire process which can be anticipated while it is being fulfilled. That everything can be foreseen while it remains continually surprising is part of its satisfaction in procedure. Balanchine's famous anatomization of complex music by complicated movement has long been evident, but hardly before to such a diagrammatic, almost didactic degree. Here is demonstration as well as celebration. The chromatics, while melodramatic, cast a late-afternoon autumnal aura—deep shadowy accents against claret-red, lemon and bottle-green. The majestic contrast of fast toe-work opposed to the slower but equally deliberate unisonal marches give still another

dimension of plasticity to the symphonic warp and woof of music, woven woolens and matching motion.

The splendid photographs of the ballets—thirty-three pages of them—confirm everything Mr. Kirstein says.

Other sections of the book include the composer, Hershy Kay, who tells about the music he wrote for *Union Jack*, informative reviews of the first performance, an account of the various Scottish Tartans, and a selection of the poems of war and men who fight—with Yeats' "An Irish Airman Foresees His Death" among them. There is no lovelier lyric in the English language, and we end by quoting four lines—

Nor law, nor duty bade me fight,
Nor public men, nor cheering crowds,
A lonely impulse of delight
Drove to this tumult in the clouds. . . .

The links of association which lead from one book to another are a part of the joys of reading. The other day we read for the first time *All Creatures Great and Small*, hardly expecting to enjoy the adventures of an English veterinarian who seems to spend most of his time with an arm reaching into the gory guts of some sick cow or other large animal. Well, we were completely wrong. The book is sheer pleasure from beginning to end—guts and all. The author *likes* animals and knows his job. Taking care of their health is hard work, but probably a lot more satisfying, in some ways, than taking care of people.

James Herriot seems able to put his finger right on the trouble of a pig or a horse—or a dog or a cat—and know just what to do to make them well. They recover easily, most of the time. It makes you wonder if all doctors should do a stint as veterinarians, as part of their medical education.

Well, the connection with another book we have for notice is being a veterinarian. Juliette de Bairacli-Levy, author of *Nature's Children—A Guide to Organic Foods and Herbal Remedies for Children* (Schocken paperback, 1978, \$2.95),

was a sort of veterinarian for years in England. She prescribed herbal remedies for animal ailments and began writing about this art more than thirty years ago. MANAS reviewed her *Common Herbs for Natural (human!) Health* (Schocken) in 1974, coming to think that this might be the best brief treatment of the subject one could find. The book inspires confidence.

For all but specialists who know the subject, forming an opinion about a book on herbs is an act of faith. There is now a great popular swing in this direction, so that some sort of critical approach is doubtless desirable—bands of True Believers are everywhere but we, not being specialists, rely on the general impression the writer gives in reflective passages. The author of *Common Herbs* seemed like the sort of person one would naturally trust. So with the present book.

The chapters in *Nature's Children* are headed: The Mother, The Father, Birth and Lactation, The Infant, The Child, Nature Medicine, Recipes, Conclusion, Afterword. Remarks in *Common Herbs* on how she took care of and healed her own children persuaded us that Juliette de Bariacoli-Levy writes out of tested personal experience. A foreword to *Nature's Children* by Helen and Scott Nearing, who have known the author for a quarter of a century, adds to the feeling of trust.

COMMENTARY A CHANGE IN VALUES

A REVIEW Of *The Inquiry Film: A Report on the Mackenzie Valley Pipeline Inquiry* (Inquiry Films Ltd., 1977), directed by Jesse Nishihata, in the Spring *Our Generation*, dramatizes themes in this week's issue. The film presents the content and renders the verdict of the Berger Inquiry into "the social, economic and environmental impact of a proposed Mackenzie Valley pipeline" an investigation that lasted over three and a half years. At issue is the right of the Dene and Inuit Indian peoples of northern Canada to prevent the ultimate intrusion of the socio-economic patterns of the market system on their self-reliant way of life. The film contrasts that life with "the well-drillers, the pipeline builders, and the white suburban enclaves of the North." There is a sense in which this documentary is both evidence of and an instrument for the change in values spoken of by Wilson Clark (see *Frontiers*).

The reviewer, Fred Caloren, one of the *Our Generation* editors, says:

The camera thrusts us into the midst of the restless, running caribou herd on the Porcupine and then draws back to open the awesome vista of thousands of animals moving over the endless rolling barrens. Wilf Bean, former government administrator, squats on the stoop of his trailer at Yellowknife. He squints into the low sun and points out that life for whites in the North is "another suburban existence." The telephoto lens confirms; picks up the progressless amble of lunch-pail swinging school kids and a wide beamed young mother in yellow shift and slacks. That was in town. Out on the snow-clad land we watch a hunter with a dog team fall a caribou, and immediately butcher the warm, twitching carcass on the snow, as the voice of Peter Usher explains that "their economy is not a market economy. The hunter is not going out as an entrepreneur. He's not going out to make things to sell. He's going out to provide food for his family."

Replying to the question: "Does not the film share in the same fundamental weakness as that of the native people's cause itself, that of romantic fantasy?"—the writer points out that the appeal of

the Indians is not for return to a dreamy, pre-industrial mast, but for—

A productive system based on a mix, a mix that already characterizes their economy, a mix of traditional self-sufficiencies and new economic developments in the renewable resource sector, which will strengthen rather than destroy their traditional self-reliance. . . .

Another review in *Our Generation*—of Bradford Snell's 1974 report to a U.S. Senate committee on monopoly—tells, mainly, how General Motors succeeded in making the automobile an American necessity, forcing rail transport out of business. This is the story of the making of our status quo. Single copies of *Our Generation* are \$1.75; subscription (four issues) is \$7.00. Address: 3394 rue St. Urbain, Montreal, Quebec, Canada.

CHILDREN

. . . and Ourselves

ONE MORE CURRICULAR REFORM

HARVARD UNIVERSITY, according to a report in the *Saturday Review* for April 1, is making a serious attempt "to restore order to the near anarchy that has prevailed in its undergraduate program." The effort toward reform is focused on the General Education program in which students must select ten "fundamental courses" out of a total of 2600. The ten courses are supposed to comprise a balance of the humanities, the social sciences, and the natural sciences. In general charge of the proposed reform is Henry Rosovsky, dean of the faculty of arts and sciences. The *SR* writer, Susan Schiefelbein, summarizes:

The problem Harvard reformers must address is the tendency in Cambridge and across the nation to see education as a vast smorgasbord, where a student's tastes alone determine whether he or she will receive proper educational nutrition. . . . "More students are bewildered than stimulated by this cornucopia," according to a report issued by one of Rosovsky's committees. Most faculty members agree. The multiplicity of courses has inspired them to describe the situation as "an embarrassment of riches" and "an agony of choice," and the Gen Ed program itself as "drifting aimlessly in a strange sea with neither a map nor a compass to guide it." . . .

The requirement sets no priorities, ensures no minimum standard of education, provides no "core" of knowledge to be shared by all Harvard graduates. A student, for example, can fill his humanities requirement by taking courses like "the aesthetics of film comedy" and "the civilization of continental and island Portugal" and never come near a literature course. "Interplanetary and intercontinental cultural diffusion and contact" counts as much toward the natural sciences required as do courses in biology and chemistry. "As any student uninterested in science will gleefully testify," a Harvard committee reported, "the natural sciences requirement can be met in any number of ways which will ensure that the student will not learn, or even observe from a safe distance, science." In short, the college has been turning out students with B.A.s that say less and less about what the students have learned. "A bachelor's degree may signify little more than the satisfactory completion of

a fixed number of undergraduate courses," Rosovsky has written.

The object of the reform is to restore some of the elements of a required curriculum. There is little optimism regarding the prospects for success:

Even if the faculty accepts the principle of the core, its future will still hang on how they deal with its particulars. "There is nothing so murderous as a stream of amenders," comments one administrator. Should such amendments materialize, reformers fear, they will come from department jingoists protecting their turf. . . .

In the end, the significance of Henry Rosovsky's movement is not whether the proposals are accepted or rejected or even whether they are implemented with glorious new courses or with a typewritten report that collects dust on a shelf. The reform's importance is rather that it has inspired a search for new methods, new philosophies, new blood to quicken the pulse of modern education. "We live within the secular cathedrals of higher learning in the absence of convictions that built the cathedrals," says [David] Riesman. The search for those convictions, core's adherents argue, is exactly what the reform is all about.

How seriously, one may wonder, should we take this attempt to generate convictions through curricular reform?

An English critic, Henry Fairlie, doesn't take seriously at all. In the *Manchester Guardian* for March 19 this Oxford graduate begins his onslaught on Harvard by recalling his talk with Sir Richard Livingston, the president of his college, the day he left:

At last he asked the kind of question that no one should ask. "What do you think Oxford has taught you?" I searched around for a harmless answer: "It has taught me to see all sides of a question." This was too much of a bromide for him. "I hope that it has also taught you to choose one." There was the voice of Oxford. It has ruled my life.

Now comes the disdain:

A great university should stamp a person. . . . One should know a Wisconsin or Ann Arbor mind at once. The difficulty I have with Harvard's proposal to reform its curriculum is that I do not think there is

now something called "the Harvard mind." Any reform of its curriculum must therefore seem trivial in its intention and scope. One simply does not believe that the Harvard mind will be any more distinctive than it has been for generations.

Insofar as one can ever find it, the Harvard mind does not only have none of the absolutes of the Oxford mind, it does not even reject them with the pettifogging and exciting zeal of the Cambridge mind. It is empty not only of conviction, but even of lack of conviction, which is something of an achievement. "At the moment, to be an educated man or woman doesn't mean anything," says Dean Rosovsky. But his point would be sharper if he said that to be a Harvard man or woman does not mean anything at the moment. . . .

What does it mean to say that "the student's range of cultural experience" will be expanded by providing "fresh perspectives on the student's own cultural assumptions and traditions"? All of these phrases come out of the rag-bag of the minds of "educators" who have forgotten what education is. They are going to deceive the students yet again, with mere fragments of information, by making them seem "relevant" to their tender minds.

This perpetual insult to the young mind—the assumption that it will not learn for the sake of learning, that it will not be interested in history if it does not have some relevance to now, that it will not engage in philosophical inquiry unless it is into "relevant" topics such as "obligation" and "citizenship"—is the real *trahison des clercs*. There it is embedded yet again in a report by the dean of Harvard College, and from there it will have its malign influence across the country.

These are hard words, but there is so much sense in them that it seems best to forget they are said about Harvard by an Oxford man, and regard them as a useful comment on higher education generally. In a word, absence of conviction is not only a problem at "Harvard," but of all modern thought and life. As Gregory Bateson said in his talk with Stewart Brand (*Harper's*, November, 1973):

"Now you've got data on one side and a stubborn epistemological assertion on the other, and you wrestle with those two somehow. My complaint with the kids I teach nowadays—graduate students and

such—is that they don't really believe anything enough to get the tension between the data and the hypothesis.

There are probably dozens of ways of exploring this weakness, but some remarks by Edward Shils in the *Spring American Scholar* are to the point:

The discovery and teaching of cognitive truth is the distinctive task of the academic profession. . . . I have labored this point, which is obvious, because it is so often indignantly repudiated. The word truth and the idea of knowledge appreciated as an intrinsic good have, in many academic minds, become associated with "metaphysics," "theology," "idealism," "dogma," "religion"—in brief with all those values and qualities which positivistic, hardheaded utilitarian sciences have rebelled against. . . . Other objectives might exist alongside the cultivation of truthful knowledge. But without this, university teachers would be no more than agitators for social arrangements which they think desirable, or a special sort of leisure class which is "kept" by society because some of its members, such as teachers of medicine, law, or engineering, perform useful services.

Curriculum has little or nothing to do with the problems of higher education, today. The fragmentation of the curriculum is an effect, not a cause. We probably shouldn't even give space to the subject, since the trouble comes from the *zeitgeist* of the age. There isn't any. The remedy lies with individuals, not in attempts at the reform of institutions.

FRONTIERS An Invisible Frontier

IN his article on renewable energy sources in the United States (August-September 1977 *Ecologist*), Wilson Clark surveys the potential of alternative energy production by existing or known technology, reaching the conclusion that by the year 2010 as much as go per cent of the country's energy needs could be supplied by renewable sources. The laggard progress in this direction, he says, is due to the centralization of the existing power system:

The stumbling blocks are almost invariably institutional and economic. Even as the great stocks of fossil fuels wane, the industrial economy is geared to supplying them to consumers at costs which are subsidized by direct and indirect means. Environmentally, the costs of central fossil and nuclear supply systems do not take into account pollution hazards, social stresses, or the future burden of waste disposal (especially in the centuries-long case of nuclear systems). Socially, governments (state and federal) have rewarded energy extraction and use, but frowned on conservation and frugality.

Reversing the institutional trends offers the only valid hope of rapidly developing new technologies and conservation approaches.

Here "institutional trends" means the habits, direction, and momentum of the industrial and business community of the United States, including governmental policies keyed to the declared needs of business.

In the United States, the central institutions of corporate power and state power seem little inclined to make the necessary investments for conversion. The oil industry as a whole spends less than one percent of its profits on overall research and development (into all forms of future energy) and the federal government's budget for energy research and development allocates only 13 per cent for solar and conservation. The entire energy R&D budget of the government is less than the revenues spent by the U.S. food industry on consumer advertising.

Noting the beginnings of a change in attitude on the part of the people generally—the move toward simplicity, the new spirit of economic

cooperation, and the waning interest in conspicuous consumption—Mr. Clark wonders if this broad tendency will become effective soon enough to avert the desperation-producing shortages that now seem inevitable. Already there have been a lot of personal changes, but institutional change usually results only from irresistible pressure along with recognition that there are no status quo alternatives.

For a parallel situation in past history, Mr. Clark quotes from Peter Kropotkin's *Mutual Aid*. The progress of the industrial revolution, Kropotkin said, was seriously impeded by the decay of the cities of Europe, noticeable early in the eighteenth century, and the disappearance of skilled craftsmen. James Watt, he pointed out, had to spend twenty years of his life to get his steam engine working properly, "because he could not find in the last century what he would have readily found in medieval Florence or Brugge, that is, the artisans capable of realizing his devices in metal, and giving them the . . . precision which the steam engine requires." In short, before the industrial revolution could flower, a whole culture involving interdependent sorts of workmanship had to evolve.

That culture, which finally emerged, was composed of a wide variety of skilled artisans who became pioneer technologists. Another sort of culture—equally necessary—must now be evolved to launch the socio-economic enterprise of another kind of industrial revolution, geared to conservation and ecological objectives, adapting the common human life to the laws of health for the planetary organism. Mr. Wilson indicates the keynote of that culture in a sentence:

A comparable situation confronts this society, as the new industrial revolution will require a basis in value before the needed technical shifts to conservation and sustainable resources can occur.

There is, in short, no "how-to" problem at all—none, that is, for which solutions do not exist. At issue is what people care about, what they

think is worth striving for, sacrificing for, and building for.

Putting the matter in more familiar terms: How do we stop being an acquisitive society?

A considerable number of people are already thinking about the answer to this question and making personally what changes they can. Others are held back by the institutional lag Wilson Clark speaks of, and still others are too engrossed in pursuing individual objectives to give serious attention to any sort of change. In other words, countless personal rhythms are involved in a situation of this sort. And if, as Mr. Clark says, a "basis in value" is necessary "before the needed technical shifts to conservation and sustainable resources can occur," then this is the real, yet practically indefinable or invisible frontier.

A letter from a reader makes it plain that individual change has in most cases to take place under conditions which are a mass of contradictions. He says:

Now assuming that the desire to produce goods for human need rather than the desire for wealth might be a key for the socially responsible businessman, it still seems possible that the production of needed goods *for profit* may undermine the foundations of community. For while the businessman may show his concern for the general welfare by producing needed goods, he nonetheless produces those goods for a profit, that is, he *charges* for them.

This reader knows perfectly well that the businessman *has* to charge for his goods. "Profits," as he shows, is an ambiguous term. It may mean no more than the money required to keep an enterprise going and pay the people who run it enough to live on. Even non-acquisitive people have to eat. Further, non-acquisitive people have somehow to learn to be at least as efficient as the profit-hungry. Meanwhile, the structures of the economic system together with the social controls imposed by government (tax measures, etc.) have all been evolved under the influence of acquisitive assumptions, so that the non-acquisitive person who can't help but work

through the system or have relations with it finds himself both constrained to behave like a profit-seeking individual and penalized when he fails to do so. There are countless ways in which this occurs, and the only compensation may be that it makes real change very tough indeed, shutting out the ne'er-do-wells and ineffectual sentimentalists who are hoping for a free ride because of their lofty moral sentiments.

The same kind of independent, ingenious, resourceful, and persistent effort is now required for real change as that which ushered the industrial age into being. Then it was only practical; now it is socio-moral-existential, and practical at another level.

There are bound to be all sorts of anomalies and moral contradictions—or apparent ones—at a time like this. People's motives and their insight and common sense are about all we have to go by, regardless of the externals of what they do. By these means people engaged in both personal and social change get to know one another and to trust one another. Actually, this whole cycle of impending change is pervaded by a new-born atmosphere of trust. People strengthen and support each other in this way.