

NATURE'S BUREAUCRACY

FROM a technical—an "objective"—point of view, a flight of the imagination bears some resemblance to the generation of a magnetic field. A man thinks a seminal, organizing thought, reaching out into some comparatively untouched area of enterprise or experience, and all the little particles of possibility affected by the new idea begin to respond, rearranging themselves. A speaker before an audience uses the common network of association in this way. To be understood, he needs to address not only the independent intelligence of his audience, but to use the terms of reference in the existing fields of their minds. A metaphor has the latent power of extending the order of the thought particles. The speaker is most effective when he gives his listeners the opportunity to use imagination, and thus to feel a sense of personal discovery. Often he outdoes himself in this. *They* begin to contribute flights of the imagination. Audiences need not be passive participants. Some day the speaker will no longer need to give talks.

Good administrators know this secret. A group of resourceful workers needs wide latitude in the direction given. The field the administrator is working with is filled with little spots of imaginative potential. A good administrator will ask himself: What sort of units am I dealing with? What is the best way to release their self-directed energies? Such an administrator is a *teacher*. In some cases he may need to set limits. Individuals with a lot of fire but poor aim work best under certain constraints. Great delicacies are involved in helping them to do their best and to improve their aim. This is not "manipulation," but an art of guidance by indirect suggestion. People help one another in this way all the time. It can of course be turned into manipulation. There are even occasions when manipulation can be hardly avoided, as in the case of a small child whose

rational faculties are not yet in play and who needs the protection of a watchful parent. Then the conditioned reflex may be the only access to the child's behavior. For modification of the non-rational aspects of social behavior in general, conventions and taboos work in more or less the same way. There are times, moreover, when sensible conventions save people a lot of time and bother over matters which are hardly worth thinking about. So, at a fairly shallow level, conventions anon save and anon damn. Using them responsibly and intelligently is a task of administrators and governors.

Attacking bureaucracy per se, then, is like hacking away aimlessly at the trunk of a tree. The trunk is a natural bureaucracy—it just stands there in its majestic rigidity. Its function is to be something to press against. It does what it knows how to do. It doesn't grow any more. Its chief virtue is its predictability. It is not supple like a twig, and it won't crack or *break* like a twig. The rigid predictability of the wood we cut out of the trunks of trees makes what may be our best building material. Engineers can tell you all about wood but practically nothing about people.

When you give a man a job as a bureaucrat, you are inviting him to use on the job mainly his stabilities, his capacity for repetition, his predictable qualities. He becomes material for the engineers. You need to know in advance what he will do, or you can't rely on him or the organization of which he is a minor administrator. You can't turn him loose to innovate on the job. Innovative ideas have to go through "channels"—be fed into the system very carefully—to avoid the terrible disruptions that sudden novelty brings. Novelty violates the nature and being of bureaucracy. Yet sometimes change is necessary. Then you make another set of abstractions. The bureau is staffed by human beings who, although

functioning as bureaucrats, are capable of change, when it is carefully explained to them. With some—perhaps all—it is desirable to justify the change in terms of some common goal. Most people work better when they understand the project's goals and share in them. But there are usually some who feel confused by a change in goals. You can see in their eyes that they think it just isn't *fair* to have the objective to which they have carefully adjusted, just *changed* after so many years. A certain tenderness is called for in explaining things to them. Somewhere, deep down in every human being, is the capacity and even the longing for a constructive change. When the capacity will come out and go to work, nobody knows. But opportunities need to be given. It may sound presumptuous to talk this way, but every administrator—every teacher—does these things almost by instinct. He is all the time guessing about human potentials, trying to notice or awaken a spark. Yet sparks at the wrong time and wrong place start brush fires. The definition of an administrator's responsibility—the teaching art—is difficult.

We have come far enough in this discussion to show that hardly anything can be settled in such a subject without nailing certain matters down. We have, then, let us say, an economic enterprise. People always bring up economics with a glint in their eye which says, "You have to settle the economic question before anything of importance can be said or done," so we might as well start there. The justification may be that without economic activity we'd all be dead. But then you have to raise a question by saying: "With nothing in our lives but economic activity we might as well be dead."

This is only a way of suggesting that economic processes need to be subordinate to life processes, human processes, not to the elaborate technical requirements of economic processes. Economic activity is a means, not an end. Management is a part of economic activity. Better management means better activity. It is

sometimes contended that better management means *more* management. Frederick Taylor, who probably had more than anyone else to do with the design and justification of mass production methods, said that the best production would be obtained by taking all decision-making away from the workmen. Everything should be planned and controlled by management. Managers should dictate the tasks of every worker—"not only what is to be done, but how it is to be done and the exact time allowed for doing it." Taylor said: "All possible brain work should be removed from the shop and centered in the planning or lay-out department."

Some sort of climax in the application of this system was reached a few years ago in the General Motors Vega plant in Lordstown, Ohio. In an article on the big strike at Lordstown, in the June 1972 *Harper's*, Barbara Garson said that the Vega plant there has "the fastest assembly line in the world, manned by a work force whose average age is twenty-four." Well, they struck. They struck, not because they wanted more money—which is supposed to be the reason for a strike but because they couldn't stand the meaningless, mechanized work. They couldn't stand being the unintelligent moving parts of a production machine. In her article (later part of her book, *All the Livelong Day*, Doubleday, 1975), Mrs. Garson commented on what she saw at the Vega plant:

I wasn't particularly surprised by the negative things I saw in factories: speed, heat, humiliation, monotony. I'm sure the reader will have guessed that I began this research prepared to expose and denounce "the system."

It was the positive things that touched me the most. Not that people are beaten down (which they are) but that they almost always pop up. Not that people are bored (which they are) but the ways they find to make it interesting. Not that people hate their work (which they do) but that even so, they try to make something out of it.

In factories and offices around this country work is systematically reduced to the most minute and repetitious tasks. . . . The crime of modern industry is not forcing us to work, but denying us real work.

For no matter what tricks people play on themselves to make the day's work meaningful, management seems determined to remind them, "You are just tools for our use."

Obviously, there has been some stupid administration, some excessive management in automobile production. Actually, if you read the business magazines now and then, you come across the reverse trend in management. It's bad for production, the experts say, to stifle human originality and resourcefulness, to make work deadly monotonous, uninteresting. So some firms are changing the system, giving workers latitude in organizing the work—this is a basic, decentralizing trend in some areas of industry.

But what happened at Lordstown? A plan for economic efficiency, you could say, pressed to its logical conclusion, broke down when it conflicted with an order which has higher priority in the human scheme of things—the need of human beings to have a noticeable measure of control over their own lives and work.

Why didn't the GM management at Lordstown change the system, give some responsibility to the workers? Maybe they tried, but think of the enormous investment in the assembly line system of production! Think of all those stockholders out there who are heartened by the fact that Lordstown has the "fastest assembly line in the world"! Think of the executives of General Motors who want to make the stockholders happy so they can keep their high-paying jobs! Here moral factors are mixed with a technical factor—the factor of bigness.

The more bigness, the more bureaucracy; the more bureaucracy, the more rigidity. No one has explained this better than E. F. Schumacher, who wrote in an article in *Resurgence* for May-June 1975:

One of our fundamental needs is to be able to act in accordance with our moral impulses. In a big organization our freedom to do so is inevitably severely restricted. Our primary duty is to stay within the rules and regulations, which, although contrived by human beings, are not themselves human beings.

No matter how carefully drawn up, they lack the flexibility of the "human touch."

The bigger the organization, the less it is possible for any member to act freely as a moral being; the more frequent are the occasions when someone will say: "I'm sorry, I know what I am doing is not quite right, but these are my instructions" or "these are the regulations I am paid to implement" or "I myself agree with you; perhaps you could take the matter to a higher level"

As a result, big organizations often behave very badly very immorally, very stupidly and very inhumanely, not because the people inside them are any of these things but simply because the organization carries the load of bigness. The people inside them are then criticized by people outside, and such criticism is of course justified and necessary, but it bears the wrong address. It is not the people of the organization but its size that is at fault. It is like blaming a car's exhaust gases on the driver; even an angel could not drive a car without fouling the air.

This is a situation of universal frustration: the people inside the organization are morally frustrated because they lack freedom of action, and the people outside are frustrated because, rare exceptions apart, their legitimate moral complaints find no positive response and all too often merely produce evasive, meaningless, blandly arrogant or downright offensive replies.

Many books have been written about moral individuals in immoral society. As society is composed of individuals, how could society be more immoral than its members? It becomes immoral if its structure is such that moral individuals cannot act in accordance with their moral impulses. And one method of achieving this dreadful result is by letting organizations become too large. (I am not asserting that there are no evil individuals capable of doing evil things no matter what may be the size of organizations or, generally, the structure of society. It is when ordinary, decent, harmless people do evil things that society gets into its deepest troubles.)

Let us turn to what we have decided to call nature's bureaucracies. For information about them we could read the books of Rachel Carson, and an old classic, L. J. Henderson's *The Fitness of Environment*, then Aldo Leopold's *A Sand County Almanac*—anything, in fact, that deals with the complex interrelationships occurring in nature, which form a dependable background and

basis for living processes. There are chemical dependabilities and living dependabilities throughout nature. Every instinctive act relies on them. There are tiny systems and enormous ones—gnats and whales—which work equally well. In every living organism minute adaptations and adjustments are continually going on. The very rhythms of life depend upon them. One system mounts on another, both using and nourishing it. The study of instinct—read, say, R.W.G. Hingston's *Instinct and Intelligence* (New York Book League, 1929)—is the study of natural bureaucratic function in countless relationships. Instinct has its limitations, true enough, and Hingston gives many examples in his chapter, "The Folly of Instinct," but the wonder of such research is its revelation of the extraordinary coordination of the resources of living things with the changing needs of their organisms. The mechanists in biology have a terrible time trying to prove that all these wonderful responses are somehow programmed in an infinite variety of Cartesian machines, only to avoid postulating a mind in nature—not a mind like ours, and certainly not a mind of the sort attributed to "God," but nonetheless *mind* which acts intelligently to fulfill the purpose of life. What is the purpose of life? We have only a circular answer—to live. Life in nature seems its own and only justification. But here we are concerned with noting the excellence of all the supporting processes, which we have named nature's bureaucracy. A bureaucracy is a support system.

Why do *our* bureaucracies break down so easily? Why do they block instead of support growth processes, as nature's bureaucracies do? Because, it seems, the conception of our bureaucracies and the functions delegated to them subdivide human beings and use only a small part of their capacities. Hypothetically and ideally, it should be possible to have social bureaucracies that would function as well as the support systems in nature. But these bureaucracies would have to be structured in conformity to *human* nature. Our trouble may lie in the fact that human nature is *not*

a fixed and unchanging thing. Meanwhile, we have no sure knowledge of its rate of change or development. Nor are our means of education (for change) well-informed or well-directed.

These are matters for better understanding in the future. There are other defects in our bureaucracies which we can understand right now. They are examined and explained in principle by Dr. Schumacher:

The bigger an organization, the more difficult it becomes to keep the human touch. This has many reasons, which have been more or less systematically identified by sociologists, systems analysts, and others. But you do not have to be an expert in sociology or systems analysis to be able to see that the human factor, as a person-to-person relationship, depends on a certain degree of intimacy, which no one can achieve with large numbers of people. How many people do we get to know as people in the course of a lifetime? If we made a list of them we should find the number surprisingly small—perhaps a few hundred, certainly not a few thousand. If I work inside a group of people, I need to know not only how I get on with each of them; I also need to know how every one of them gets on with, and relates to, everyone else. The number of person-to-person relationships within a group rises much faster than the number of group members as the group increases in size. Among three people, there are three bilateral relationships; among twelve there are sixty-six; among a hundred, there are 4,950—more than anyone can keep in his head at the same time. In fact, any large group of people will inevitably break down into small groups whether such a breakdown is provided for in the organization chart or not. Structures will emerge, and such structures are normally hierarchical, that is to say, there are a number of "levels" between top and bottom. Everybody has a boss the little bosses have bigger bosses and so on, if not "ad infinitum," in general through quite a few layers of authority: the bigger the organization, the more such layers there are likely to be.

Such structures cannot function without many rules and regulations which everybody, even the top boss, has to abide by. It follows that nobody, not even the top boss, can act freely, though at each level there may of course be a certain amount of discretion.

The rules, you could say, are to prevent the people of the organization from spreading

confusion. But the rules also block the benefits of inventive or moral intelligence. Still, the structure *needs* the rules, and to find out whether good would be spread in a no-rules or fewer-rules situation, you need to experiment with a less complicated structure. Only in an organization having less critical interdependence could you risk letting people decide for themselves when to repeat what they are doing and when to try out a new idea. Only in a small outfit which depends upon originality more than on repetition would you dare to let people try innovations that they feel they will be able to control by themselves if things don't go as expected.

A natural bureaucracy is a bureaucracy in which all the units play at the top of their game, sometimes using *all* their potentialities! But then, of course, it isn't any more a bureaucracy but a living organism! And that is what the best human organizations most resemble. But getting a social "organism" going by statute would probably be the very worst thing we could attempt or do. The history of the "organic states" of the past is the story of the worst tyrannies known to man. You can't legislate organisms. They have to grow. Only natural organisms can be trusted, and this is the case because they have developed by internal collaboration under the laws of mutual trust—by Sarvodaya and Ahimsa.

Organisms are both elaborate and delicate. They have another attribute: they can't be imitated by a mechanistic scheme. This is evident from another passage by Dr. Schumacher:

A large organization, to be able to function at all, requires an elaborate administrative structure. Administration is a most difficult and exacting job which can be done only by exceptionally industrious people. The administrators of a large organization cannot deal concretely with real-life problems and situations: they have to deal with them abstractly. They cannot enjoy themselves by devising, as it were, the perfect shoe for a real foot: their task is to devise composite shoes to fit all possible feet. The variety of real life is inexhaustible, and they cannot make a special rule for every individual case. Their task is to anticipate all possible cases and to frame a minimum

number of rules—a small minimum indeed!—to fit them all. We all know that life, all too often, is stranger than fiction; the dilemma of the administrators, therefore, is severe: either they make innumerable rules the enforcement of which then requires whole armies of minor officials, or they limit themselves to a few rules which then produce innumerable hard cases and absurdities calling for special treatment; every special treatment, however, constitutes a precedent which is, in effect, a new rule.

The organization as a whole, at the same time, is faced with a further dilemma: either it draws its best brains into the administration, whereupon they may be missed at operational level; or it uses its best talents, whereupon there may be serious frustration down below, owing to incompetent administration.

If there is any truth in this (very rough) analysis, the conclusion is obvious: let us organize units of such a size that their administrative requirements become minimal. In other words, let us have them on a *human* scale. . . . Small units are self-administering in the sense that they do not require full-time administrators of exceptional ability, almost anybody can see to it that things are kept in reasonable order and everything that needs to be done is done by the right person at the right time.

In short, the best level of human organization is the level where all the capacities and potentialities of human nature have opportunity to come into play. This means more individual decision concerning when to repeat and when to innovate. It means growing individual responsibility. No one grows in responsibility without *having* it. It means that each individual is continually or regularly confronted by the need to decide whether he can use what he has learned in the past or needs to try something new. Organizations can become organisms, displaying the wondrous capacities of nature, in no other way.

REVIEW

BALZAC'S UNLIVED LIFE

PERIODICALLY, streams of fresh inspiration enter the flow of literature, giving it new life and imaginative content. The sources are sometimes mysticism and often what is confusedly termed "occultism." Since the authority of these influences has a purely subjective origin, control over their use depends upon the discrimination and sense of fitness of the writers in whom they emerge, with the result that, after any great wave of new ideas coming from these sources, there is almost always a tough-minded reaction—the effort of another generation of writers to purge their work of sentimentality and vain imaginings with a strong infusion of empiricism and earthy "realism." The best critics, one could say, are those who understand these alternations in literature and culture.

But even to look at literature in this light is to make certain assumptions which are grounded in intuitive feelings about the struggles of great genius—assumptions concerning what is actually going on in artists who become the creative types of the age. How can such assumptions be vindicated? Only, one may think, by the clarity which is shed on works of art by the critic who uses them. And the clarity is recognized and admitted only by a corresponding intuition on the part of readers.

These reflections were stirred by reading an essay by Henry Miller, written more than thirty years ago, during the war, and published in 1944 in England in *Transformation Two*, the second volume of a series edited by Stefan Schimanski and Henry Treece. The closest thing to *Transformation* published in the United States at that time was the series, *Twice a Year*, edited by Dorothy Norman. Both publications presented essays by the most thoughtful writers of the time. Among the contributors to *Transformation Two*, for example, were A. S. Neill, Lewis Mumford, Herbert Read, Stephen Spender, and Kenneth

Burke. Miller's contribution is twenty-six pages of discussion of Honoré Balzac, a review-essay based on *Balzac* by Ernst-Robert Curtius, which Miller calls "the most penetrating and comprehensive study of Balzac I know of."

The theme of the works by Balzac examined by Miller—*Louis Lambert* and *Seraphita*—is the duality of man. There is an angelic self as well as an animal self, and the tensions between these two produce all the contradictions, the wonder, the torture, and sometimes the transcendence, of the human self. The struggle may be regarded as a transient reality, yet one which seems interminably protracted, and with which we become so tiresomely familiar as to suppose there are no resolutions of its conflicts. But in Balzac's—and Miller's eyes, the sensitive writer is one to whom the causes of this struggle become manifest. He is both witness and participant:

Who was Louis Lambert? He was not only, as the story relates, *le copain*, the chum, the alter ego he was Balzac's own real self, the angelic self which was killed in the struggle with the world. At that moment in Louis Lambert's life when, as Balzac says, he perceived in him "the struggle of the mind reacting on itself," he adds—"at this stage of weakness and strength, of childish grace and super-human powers, Louis Lambert is the creature who, more than any other, gave me a poetical and truthful image of the being we call an angel." When in his fifteenth year he parts from his double at the college of Vendome, he says: "You will live, but I shall die. If I can, I will come back to you." In the story he does come back, to find Louis mad, but in life he never came back. In taking leave of himself in this strangely prophetic manner it is interesting to note that Balzac immediately proceeds to give a physical description of his double, an exact description, including Louis' height, adding significantly: "*he grew no more!*" In the midst of his narrative, in an interlude of two short paragraphs wherein he makes a transition from the known life of his double to the subsequent and imagined life of the mystic who rotted away in the flesh, Balzac remarks that in describing Louis' boyhood he is depicting "the unknown life to which I owe the only happy hours, the only pleasant memories, of my early days. Excepting these two years I have had nothing but annoyances and weariness."

The book is an attempt on Balzac's part to justify himself not only to the world, but to himself. It is the study of the ordeal and crucifixion of a genius, a defense of the real Balzac whom the world refused to acknowledge. It is an outcry against the critics for failing to discern in the novelist the more important attributes of thinker, visionary, prophet. . . . But it was above all the failure to detect "the angel" which reduced Balzac to despair and moved him to write this harrowing study of frustration.

Balzac, you could say, was *doomed* to this despair by his age and its tendencies. He died in 1850, and think of what lay ahead, in the next fifty or a hundred years of European civilization. All the public victories that would be accomplished were either amoral or immoral. For England there would be the confirmation of Empire in the framework of the vast complacency of the Victorian age. For France, the Dreyfus case would reveal the corruption of a declining culture, with only the mixed morality of a Zola to leaven the decay. America would be busy laying the foundation for the contradictions of the present, teaching its young the goals of ruthless acquisition and the egotisms of reapers of blind fortune. What could such people have to do with "angels," hovering in lonesome isolation, shut out by all this triumphant material progress?

Great Balzac was a victim of his world, and of that world within himself.

Balzac [Miller writes] struggles with the world in order to down the angel in himself. He rails and fumes against the world for its inability to understand and appreciate him, but the confusion he precipitated was of his own making. His life was as disordered, confused and chaotic as the bedevilled proofs of his manuscripts, the like of which the world has never seen, except in the world of the insane. He beclouded the real issue with a smoke screen of words; he fought like a madman to blind his own eyes to the path which he was ordained to follow. The world has been kind and at the same time cruel to him, in the very measure of the duality and antagonism which he created. It has accepted him as one of the greatest of human geniuses, it has remained ignorant of the real goal which he set himself. He wanted fame, glory, recognition: he received them. He wanted riches, possessions, power over men: he obtained all of these.

He wanted to create a world of his own: he did. But the true life which he secretly desired to live was denied him—because one cannot have one foot in one world and the other in another. He had not learned the lesson of Renunciation: he had renounced the world, not to abdicate, but to conquer.

Miller's concluding judgment is this:

Balzac, like Beethoven, seemingly gave the maximum that a man can give, but it was not enough, *not for a Balzac!* I am not thinking of the forty books he is said to have left unfinished at his death, but of the life he left un-lived, of the vision he failed to live by. His life, which is the very symbol of Work, epitomizes the futility of Western life, with its emphasis on doing rather than being; it epitomizes the sterility of even the highest efforts when characterized, as they are in our world, by the divorce between action and belief.

How does Miller know all this? Well, he doesn't, really. He doesn't know *all* this, but enough to offer a coherent account of what seems to him the meaning of Balzac's life and work, and this is not possible without a strong feeling, at least, of what it *might* have meant. The only significant thing about a human life is its sequence of choices. Talk about choices must be against a background of the range of possibilities.

Admitting this, how then shall we justify discussion in terms of ideas or assumptions in which we feel high value but actually know very little about?

There are various answers to this question. We could say that we are justified in doing this because we have to. Or because certain inner hungers or longings drive us to do it. Or, turning to science, we could say that we are pressed to use such generalizations for the reason that life becomes unmanageably complex without them. A measure of simplicity of meaning is restored by using them. This necessity is illustrated, today, in the intense interest of young mathematicians around the world in the theories of René Thom, who has used topological mathematics to give adequate description—if not explanation—of the enormously complex phenomena of form in organisms and all nature. The equations of

physics and chemistry will not suffice. As the eminent biologist, C. H. Waddington, says in his Foreword to Thom's book, *Structural Stability and Morphogenesis* (W. A. Benjamin, Reading, Mass., 1975):

When a category of biological processes, such as evolution or development, leads to the formation of an appropriate and specifically biological body of theory, it does so because it has two characteristics, it involves entities which have a certain global simplicity and definiteness of character (e.g., a given species of animal or plant, an organ such as the heart or the liver, or a cell type such as a muscle or nerve cell), but if one attempts to analyse these entities into basic constituents, such as genes or molecules, they turn out to be of unmanageable complexity. The logical structure of important biological concepts is almost always an actual simplicity (exhibited in their relations to other concepts in the theoretical scheme), included within which is an extreme complexity (revealed on reductional analysis). If there was no simplicity, there would be nothing to make a theory about; if the complexity remained manageable, physico-chemical theories would suffice.

But they don't. Therefore, holistic and hierarchical conceptions are coming into biological theory. And, since human phenomena are far more complex and unpredictable than biological phenomena, generalizations—theories, suggestions—such as Balzac used and Miller develops, become of value. In fact, the importance of such writers lies in showing us the simplifying wonder of such ideas, and that we can hardly do without them.

COMMENTARY

WORK WITHOUT ADMINISTRATORS

THE extraordinary resources of instinct spoken of in this week's lead (see page 7) are illustrated in Edward O. Wilson's *Sociobiology* (Harvard University Press) by the nestbuilding of *Macrotermes*—African termites that cultivate fungus for food in arched nests sometimes rising as high as sixteen feet above ground level. The arches support an outer shell surrounding fungus gardens arranged on a substratum of chewed wood. The architectural requirements of this elaborate structure are apparently well known to the termites. As Mr. Wilson says:

When workers of this species are separated from the remainder of the colony and placed in a container with a building material consisting of pellets of soil and excrement, each first explores the container individually. Next, pellets are picked up, carried about, and put down in a seemingly haphazard fashion. Although crude passageways may begin to take shape, the termites for the most part still act independently of each other. Finally, seemingly by chance, two or three pellets get stuck on top of each other. This little structure proves much more attractive to the termites than do single pellets. They quickly begin to add more pellets on top, and a column starts to grow. If the column is the only one in the vicinity, construction on it will cease after a while. If another column is located nearby, however, the termites continue adding pellets, and, after a certain height is reached, they bend the column at an angle in the direction of the neighboring column. When the tilted growing ends of the two columns meet, the arch is finished, and the workers move away.

The *Macrotermes* workers give every appearance of accomplishing their astonishing feat by means of what computer scientists call dynamic programming. As each stage of the operation is completed its result is assessed, and the precise program for the next step (out of several or many available) is chosen and activated. Thus no termite need serve as overseer with blueprint in hand.

Hingston, who presents a variety of such examples in his book, declares that this "automatic behaviour has come from behaviour that was first intelligent," suggesting that "instinct began in a

reasoned act." Then, he says, "this act, through being continually repeated, tended to lose the reasoning element and to become more and more unconscious," until, after generations of repetition, "the mental machinery by which it worked got more indelibly engraver in the mind." So, finally, it became automatic—"in other words, it became instinctive."

CHILDREN

. . . and Ourselves

CHANGES IN CURRICULUM

ACCORDING to *Organic Gardening* for September, the State Board of Education in West Virginia has voted to ban the sale of "junk food" in all the state's public schools, starting last fall. Ruled out are such items as candy, chewing gum, soft drinks, and flavored ice bars. The nine members of the board, which includes a doctor and a dentist, were unanimous in the decision. One of them said: "On the one hand, we were trying to teach students the value of good nutrition, while on the other hand, we were selling food that was bad for them."

Three years ago the West Virginia Board "suggested" that all non-nutritious foods be eliminated from those available in vending machines. Not enough change resulted, hence the ban. In some cases, however, the board felt a compromise was necessary:

The state board has not outlawed the machines completely, recognizing that many districts need the profits to help pay costs of some extracurricular activities and provide funds for educational equipment not covered in standard budgets. To help the local districts wrestling with this problem, the state has compiled a list of acceptable alternatives to the banned items which includes fruit juices, fresh fruits, raisins, peanuts, yogurt and canned soups.

This unavoidable compromise illustrates the difficulties encountered by conscientious school boards. Once the peonage of the schools to money-making devices is established, change becomes doubly difficult. How many institutions depend critically on over-emphasis of competitive athletics—which sells tickets to parents and friends for income—to balance the budget? How many places of "higher learning" now require government contracts for military and other research in order to survive?

Years ago Arthur Morgan composed a small pamphlet, *The Economic Basis for Idealism*, in which he recited some of his personal experiences,

the lesson being: Don't ever allow yourself to get into a position where a desperate need for money will force you into moral compromise. If you do, sooner or later you'll be trapped into doing something unpalatable, perhaps contemptible.

The West Virginia School Board, however, has reversed the trend in one state, and other states now have this shining example before them.

Another tidbit in this issue of *Organic Gardening* is a quotation from Gandhi, dated Nov. 21, 1929:

It must mean certain death to millions of India's population, if the solar power stored in the hands and feet of her 300 million inhabitants is allowed to waste in the impossible attempt to replace it with steam or such other power for the purpose of sustaining physical existence. It would be on a par with an attempt by a man not to use his hands for bringing food to his lips, but to let a machine do the work of the hand and run the risk in the bargain of burning his lips for want of automatic protection that the sensory nerves connecting hand to brain afford against overhot dishes.

The illustration may not seem especially apt to some, but its point is profoundly pertinent and prophetic. Gandhi's prediction probably produced some faint amusement, here and there, in 1929. Forty-seven years later it is the clear handwriting on the wall for countless victims of industrialism and the green revolution, not only in India.

At least a beginning is being made in some American schools to turn the tide in the opposite direction. Also in this issue of *Organic Gardening (and Farming, to give its full name)* is an account of some twenty-five places where either children or college students have opportunity to acquire another view of the best way to sustain physical existence. According to Richard Byam, research director of the high school in Turner Falls, Mass., this school is now offering an Occupational Program which combines general education with agriculture. The school will have a garden, and the students will learn composting and have lessons in biological pest control.

The P-N-W Organic Training Farm has been established on 108 acres in Middlebourne, West Virginia. There campground residents maintain their own vegetable plots, and homesteading skills such as composting, rotary tillage, farm mechanics and repair, cottage industries and other essentials of life on the land are taught.

Among many developments in New York state are the following:

The Center for Applied Ecology and Life Style Experimentation, a 60-acre segment of campus in Fancher, N.Y. Dr. John I. Mosher, professor of biology at State University College at Brockport, plans "lessons learned by what occurs in nature . . . then applied to food growing, energy production from renewable resources, and shelter, with emphasis on "holistic, harmonious approach." A "Weekend College" devoted to home gardening and the small farm at Ulster County C.C. in Stone Ridge, N.Y., came about as a result of having "tremendous success in Continuing Education Programs related to vegetable, fruit and ornamental horticulture." And in Hartsdale, N.Y., the Greenburgh Central School District 7 inaugurated an organic farm project for students, faculty and area apartment dwellers.

Summarizing the implications of this "survey" article, the *Organic Gardening* writer, M. C. Goldman, remarks that today "more students than ever—at every age and grade level—will be involved in learning about some phase of organic living."

What's happening is a remarkable expansion of the interest in natural lifestyles that began generating in the 1960s. The organic classroom has become a starting point, a catalyst for the changes so many people want to make in their lives. Besides the basics—all the nuts-and-bolts how-to of successful backyard or community gardening—it now encompasses the full range of organic crop raising, orcharding, livestock and poultry care, greenhouse and woodlot operation, environmental studies, plus a dozen others. Its growth has also moved strongly into all the areas of the home crafts, oldtime skills for self-sufficiency, new-fangled ideas for power production, dramatic advances in biological pest control, plant healing, preparing and preserving foods.

Conservation organizations and community and urban groups, sometimes municipalities, are doing what they can:

In San Francisco, for example, the Sierra Club has published and made available an excellent 11-page instruction booklet, "School Gardens: Earthcare in the Dooryard Garden." Written by Doris Solarius, a Sierra Club volunteer in Olympia, Wash., it's designed to help teachers start a school garden with stress on teaching the students organic methods, the economics of growing your own food, the necessity to reuse wastes, and the values inherent in a simpler, less resource-consumptive lifestyle.

A resident of Richmond Heights, Ohio, Arnold Gleisser, tells what is going on in his community:

The Richmond Heights Environmental Board, with the help of the mayor and the city council, has been collecting papers for recycling for the last five years. The High School Ecology Club collects aluminum and has used the funds for building a wind generator, a solar panel and planting a huge organic garden.

The Environmental Board and the Ecology Club collect over 100 tons of leaves each year and compost them so any local citizens may use them. They circulated the paper, "Composted Leaves," among the town's residents and one of the local papers printed it in full for better circulation. They started with leaves because leaves and grass are the main garbage pickups during summer and fall. In most towns, leaves are taken to landfills and wasted, while local people find fertilizers more and more expensive. The mayor is official Service Director, and it is town policy to encourage composting.

This fall the Recreation Board will carry a course on organic gardening which will further educate the residents on the advantages of composting and avoiding chemicals and pesticides.

This has been a community effort involving a city government and the schools, and it would be wonderful if more cities would engage in such programs.

Organic Gardening offers material (various programs and lists of classes) for use in schools—send a self-addressed, stamped envelope to: "Organic Classroom," *Organic Gardening and Farming*, Emmaus, Pa. 18049.

FRONTIERS

After Reading the Papers

SINCE in our present economy newspapers require a mass circulation simply in order to survive, what they print may be taken as evidence of what people in the mass want to read—the intellectual and moral level of their interests. Of a certainty, the newspapers could do better than they do and still survive, but how much better is an open question. An attempt to find out, they think, might prove self-destructive.

Taking the contents of the papers at this evaluation, the result is discouraging. We are thinking of the way the recent election campaign was reported. How much difference can it have made who was elected when the "news" of the closing months of the campaign seemed largely a series of reports on which candidate's strategists had the most interesting things to say about the sagacity of their efforts to cajole or manipulate the voters? There were in addition, of course, "think pieces" about the candidates and their qualities, with routine reference to "issues," but the chasm which separates such material from, say, the *Federalist Papers* of two hundred years ago is too wide to permit comparison. National elections, these days, in no way represent a Frontier. They never have, and never will, one may suspect, save for those rare occasions when a Washington or a Lincoln is on the scene.

The root explanation of this may be that essential moral questions and issues are seldom successfully politicalized. Moral acts are voluntary, uncoerced, and more often than not they alter or break with routine. True morality, then, is anarchistic in tendency, in the sense that it is inventive, perceptive, and self-reliant, while the conversion of moral issues into political programs requires that the change be administered by a bureaucracy. The best side of bureaucratic methods lies in effective technique, and any ethical stance which seems to require a deviation from established technique is to the bureaucrat

upsetting and demoralizing. In highly organized societies a minor earthquake seems necessary to effect a real change. Afterward no one is really comfortable until the bureaucracy is again safely in charge.

In the *Christian Science Monitor* for Oct. 6, Elizabeth Pond reviews Soviet history from the time of the revolution, asking, in her title, "Has Lenin's Dream Faded?" The account of the early years of Bolshevik rule ignores the criticisms of such writers as Victor Serge and Voline, making Russia's progress in the production of consumer goods the principal indication of success or failure, although there is reference to Stalin's purges and the impact of World War II. The *Monitor* writer says:

Only after Joseph Stalin's death in 1953—and after party chief Nikita S. Krushchev's revelation in 1956 of Stalin's crimes—did life gradually return to normal. Most of the surviving political prisoners were released from the Siberian labor camps. Krushchev tamed the KGB and brought it back under the wing of the party. Indiscriminate terror was renounced as a mechanism of control.

With this, the terrifying "atomization" in which a person trusted no one but his or her spouse evolved into a kind of "molecularization." In a welcome relief the circle of trust widened to include eight or ten friends.

In addition Messrs. Krushchev and Brezhnev improved living conditions of the population. Between 1960 and 1973 overall per capita consumption jumped nearly 60 per cent, while consumption of foods rose 48 per cent, soft goods 64 per cent, and consumer durables 157 per cent. There is a major commitment to increase meat consumption, and automobiles became available for private purchase in the 1970's.

So far the Soviet consumer has been satisfied with this much improvement. But the rate of per capita increase has dropped to 1 or 2 per cent a year and threatens to go down to zero within a few years. If it does, even the modest consumer expectations excited by the improvements to date might not be assuaged. . . .

At the same time ideology had faded somewhat. By now justification of the leadership in high-school textbooks has shifted away from leading the

revolution in the world to the more mundane advancing of the domestic economy and standard of living. Perhaps ideology is "no longer a motor and more a framework," one Western diplomat suggested.

To be noted is the major canon of success suggested by this article: Economic Plenty. Lenin's Dream stands or falls by this criterion. This is how we judge ourselves, so it is natural to judge the Russians by it also.

Presidents and other elected officials are supposed to concern themselves with fulfillment of the public good, the public interest. What is the public interest, by newspaper and other measures of popular opinion? Two things are crucial, it appears: National security and prosperity. But a *serious* statesman would find it his duty to point out the deep contradiction and futility of unquestioned pursuit of these goals. The matter is exactly as John Schaar describes it in his essay on Authority in *New American Writing* No. 8.

The government must now defend national security and enlarge the GNP. But it is increasingly clear that the nation-state can no longer guarantee the first at all, and that in the modern states the second has been accomplished to the point where it threatens the irreversible degradation of the environment and the species.

We have finally made the engine that can smash all engines, the power that can destroy all power. Security today, bought at the price of billions, means that We shall have fifteen minutes' warning that They intend to annihilate us, during which time we can also annihilate them. The most powerful state today cannot provide security, but only revenge.

The case with abundance comes out the same way. . . . More than a century ago, Walt Whitman observed that America had already overdeveloped its economic sector of life and should now turn to other efforts. Modern production is dedicated almost entirely to consumption, and since consumption is limitless so too is production. . . . Modern production obscures the sun, pollutes the air, and chews up great forests. It drinks whole lakes and rivers or transmutes them into abominations. . . . The civilization of production periodically destroys men by heaps and piles in war, and mangles the spirit of others in meaningless labor. The only aim of this

civilization is to grow, and to grow it must consume. . .

The modern state, then, insofar as it is provider and guarantor of increase, and insofar as its success in this task is a source of legitimacy, has succeeded too well; its success has become a threat to survival.

These are the true frontier issues. Manifestly, they run more deeply in our lives than politics and will not be faced—will rather be hidden—by politics until long after it is "too late." They are pre-political issues turning on what we value most highly in our lives.