VOLUME XXIII, NO. 9
MARCH 4, 1970

THE OBLIGATIONS OF SCHOOLS

IT is clear enough that the new educational enterprises which are springing up around the country—especially those for small children—are coming into focus on the basis of ethical ideas. These ideas often seem more corrective than affirmative in origin, since the objective most frequently declared is to avoid past mistakes. Children, it is said, must no longer be shaped, coerced, and *molded!* according to preconceived ideas. The young are not mere "raw material" to be used for the furtherance of adult purposes, such as fighting the wars of the older generation. There are of course positive expressions of the humanistic ideals embraced by these schools, yet serious ambiguities can be seen to grow out of the generality of humanistic values. Freedom and justice, for example, acquire operative meaning only when informed by crucial decisions about the ends of human life; these decisions cannot be compelled, yet neither can they be neglected. The man who will not return an answer to the question, "Freedom for what?", still has his life to begin. It is when education begins to reach beyond teaching the elementary tools of communication that the ambiguities appear and some practical decisions have to be made.

The problem could be stated in this way: every human being will sooner or later find it necessary to choose some basic direction for his life; yet as teacher, and all men are that, he must not try to settle this question for anyone else. But if he has developed convictions of his own—and who could teach without them?—how will he avoid at least some suggestion of his opinions during the educational process? Well, we can say that he ought to teach only the art of discovery—not the proceeds but the act. This is doubtless the saving rule, yet there are practical difficulties, apart from the question of whether discovery is really teachable. For example, at a conference held a few years ago by the Lower East Side Action Project (LEAP, in New York City), one of the leaders pointed out that the Puerto Rican youth in that neighborhood were never encouraged to prepare themselves for working in any of the professions. Their public school faculty advisers always urged training for some humbler occupation, such as auto mechanic. One of the boys in the LEAP program wanted to become an architectural draftsman, but found obstacles continually in his way. This led to various examples of denial of higher educational opportunity to racial minority teenagers. Then, after some discussion along these lines, Paul Goodman said:

> I feel we have a lot of kids here who have the same kind of garbage in their minds that any kid in Yale or Harvard has. They have the same ambitions, want to climb up the same way, and who needs it?

There was little useful dialogue at the conference after Goodman enlarged on this point. Goodman has of course on other occasions pointed out the need for trained technologists—men of vision, that is, who also gain *competence* in the professions—and at the LEAP conference he was probably deploring what he regarded as the illusory values based on hopes of rising in the System. Yet, as Gandhi would surely have said, you can't really reject the System if you've never had opportunity to rise in it. Rejection without the capacity to have what you reject doesn't mean much. A nonviolent man, Gandhi insisted, is a man who *can* fight but won't. Only the moral choices made from a position of strength really count.

Yet the decisive disenchantment felt by many of the young with the System is not a thing that educators can ignore. Teachers often share in these feelings, themselves, and wonder how such deep questions and doubts should affect their

teaching. This problem may be partly artificial. That is, one could argue that the young are sometimes far ahead of their teachers in questioning and disillusionment. This mood is everywhere in the air and the problem is rather what or how to teach in spite of the widespread loss of faith. For one thing, disillusionment is a prerequisite of change and can serve to clear the ground for new beginnings. And since the shape of those beginnings still remains obscure, a tempered equilibrium of mind is certainly far better preparation than any sort of "plans." John Holt's counsel to a college girl (a former pupil) probably defines the ideal educational stance in a time of almost total uncertainty:

> This poor girl, in her confusion and ignorance and bafflement, wrote how much she envied me. I supposedly had everything figured out. I wrote her back and said, "You could not possibly be more mistaken. The difference between you and me is not that I have everything all taped, it's that I know I don't and I never will, I don't expect to and I don't need to. I expect to live my entire life about as ignorant and uncertain and confused as I am now, and I have learned to live with this, not to worry about it. I have learned to swim in uncertainty the way a fish swims in water." It seems to me that it is only in this way that it is possible to live in the kind of rapidly changing world that we live in. We are obliged to *act*, in the first place, and in the second place to act intelligently as possible, in a world in which, as I say, we know very little, in which, even if the experts know more than we do, we have no way of knowing which expert knows the most. In other words, we are obliged to live out our lives thinking, acting, judging on the basis of the most fragmentary and uncertain and temporary information.

Losing one's certainties, as Mr. Holt seems to have done, is not necessarily losing one's knowledge. It may be freeing oneself of illusions in the way that Socrates describes in the *Phaedo.* But when a man is cured of illusions suddenly—not slowly, through philosophy, but because he is stripped of them by a sequence of rudely disenchanting events—he will almost certainly suffer desperation. And this, it seems clear, is the reason why Ortega says that the only man with a clear head is the one who feels lost:

> As this is the simple truth—that to live is to feel oneself lost—he who accepts it has already begun to find himself, to be on firm ground. Instinctively, as do the shipwrecked, he will look round for something to which to cling, and that tragic, ruthless glance, absolutely sincere, because it is a question of his salvation, will cause him to bring order into the chaos of his life. These are the only genuine ideas, the ideas of the shipwrecked. All the rest is posturing, rhetoric, farce.

Well, then, a teacher ought to have been through this ordeal, or to seek it in philosophy, for then he will not miseducate anybody. He can't of course teach in a "desperate" frame of mind, since the young have no need to be made desperate, least of all by an adult conspiracy of teachers. In our world desperations come soon enough, and education is for learning how to meet them, not for invoking and collaborating with them. Actually, John Holt's counsel is a worthy repetition of the Socratic counsel, and we may note that Socrates was probably the calmest, most serene man in all Athens. Almost certainly, his serenity was founded on his incapacity for pretense.

Since we are now back to the Greeks, we might stay with them a while. In the first volume of Werner Jaeger's *Paideia* (Galaxy paperback), one long paragraph lays a foundation for considering many questions about education:

> Therefore the great educational movement, which distinguished the fifth and fourth centuries and which is the origin of the European idea of culture, necessarily started from and in the city-state of the fifth century. It aimed, as the Greeks understood it, entirely at political education, training to serve the polis. The essential need of the state created the ideal of education which recognized and employed the power of knowledge, the great new spiritual force, to form human character. Whether or not we approve of the Athenian democratic principle which gave rise to these problems, is irrelevant for this discussion. At any rate, unless the whole population had been given an active part in government (and that is the basis and one of the distinguishing marks of democracy) it would have been impossible for the Greeks to ask and answer the eternal questions which exercised them so deeply at that period of their history and which they

> left for posterity to answer in its own way. In modern times too, the same development has raised the same urgent questions once again. Only at this stage of spiritual development are such problems as those of freedom and authority, or education for citizenship and education for leadership, conceived and answered, and only at this stage do they acquire their full urgency as moulders of men's destiny. They do not arise in primitive societies in herd-communities or family-communities where there is no conception of the powers of the individual mind. Hence their significance is not confined to the Greek city-state democracy, although they were first conceived within the democracies of the fifth century. They are problems of the state, *per se.* And the proof of that is that the great Greek philosophers and educational theorists, starting from the educational experience of democracy, soon reached bold conclusions which went far beyond the existing type of constitution and which are infinitely valuable guides in any similar situation in later ages.

In relation to the contribution of the Greeks, then, we might say that present adventurous educational theory has retained the "conception of the powers of the individual mind," and has very nearly abandoned the idea of being of service to the state. Those "bold conclusions" concerning possible constitutions are no longer interesting, since very nearly every sort of constitution has since been tried, somewhere or other, and found wanting or oppressive. And the oppressions of the modern state are not only in the continuous demands of war and of preparations for war, but in the degradations and perversions it works in education itself. So, in the new schools, there is almost exclusive stress on the nurture, care, and flowering of individuals. Talk of training for "citizenship" and "leadership" is seldom if ever heard. An underlying quiet suspicion of large political organization is natural enough for thinking men, and especially for teachers who have been able to do good work only by becoming independent of it.

This may be, for the moment, as it should be. Before people can be educated for service to the *polis*, there has to be a body of clear and coherently structured thinking about human community, and while we have many dreams about ideal forms of human association, none of these has been brought to a recognizable degree of realization. Quite possibly, realization of new social forms will depend upon getting clearer ideas of human identity—a question on which, again, there is much wonderful dreaming and ecstatic expression, but little disciplined thought (except in the works of A. H. Maslow).

Education, then, is obliged for a time to function within the scope of Socratic and Holtian ignorance and to provide a deliberately bifocal program—some necessary or expedient adaptation to existing conditions and social organization, but no happy and confident settlement for the status quo; and a wide-ranging, open-minded contemplation of new possibilities of human association, but with explicit warning that workable ideals will probably only reveal themselves in actual growth-situations, rather than in intellectual formulations.

Meanwhile, there are still things to be learned from the Greeks. Werner Jaeger draws a brilliant portrait of the Sophists of Plato's time and before, and we quote it to show its embarrassingly close similarity to quite recent conceptions of the "cultured" or "educated" man. It is of a man skilled mainly in the use of language, who rides freely on the energy of the moral ideals of the past, which he exhausts without renewing. The Sophists, Jaeger says,

> strongly resemble the *literati* of the Renaissance both in their intellectual arrogance and in their independence, their untrammelled cosmopolitanism. Hippias of Elis, who was conversant with every branch of knowledge, who had learnt all trades who wore no garment or ornament which he had not made himself, was a perfect *uomo universale.* There were others too who so deftly and dazzlingly combined the functions of scholar and orator, teacher and litterateur that it is impossible to place them in any one of the traditional professions. Not only their teaching, but their intellectual and psychological charm made the sophists illustrious and favored guests at the homes of the rich and powerful in every city where they chose to remain for a time. In that, too, they are the true successors of the touring poets whom we have seen in the sixth century at the courts of tyrants and the

> homes of rich noblemen. They lived, literally, by their wits. Constantly wandering from city to city, they had no real nationality. The fact that it was possible for men to live in Greece at that period with such utter independence is the surest and most characteristic sign that an entirely new and fundamentally individualist type of culture was coming into being—for the sophists were individualists, however much they might talk of education to serve the community and training in the areté of a good citizen. The whole age was moving towards individualism, and they were in the van of the movement: so that their contemporaries were right to regard them as the true representatives of the spirit of their age. Another sign of the times is that the sophists lived on their culture. It was, says Plato, "imported" like a marketable commodity and put on sale. There is some truth in that malicious comparison, though we must take it not as a moral criticism but as an intellectual diagnosis of the sophists and their way of life.

The contribution of the Sophists, Jaeger shows, was the heightened self-consciousness of Greek culture. Yet they were not philosophers; they *used* philosophy, but gave nothing of themselves to a moral vision, and Humanism, Jaeger says, reached its highest and truest form through Plato's successful crusade against their ideas.

It seems certain that some form of Platonic revival will find its way into the schools of the future, yet the anti-state temper of present experimental undertakings does not take kindly to Plato's emphasis on Law. Besides, there are other currents of influence to consider. Gandhi's ideal of the autonomous small community, affirmed in contrast to the power of the state, is much in the minds of the maturer young and many of their teachers. There is also the increasing penetration of ideas drawn from ancient Eastern religions, in which the state or political authority figures only as background. It is as though the entire question of political organization needs some kind of moratorium, until it can be approached with greater freedom from obsessive preoccupation with political power and recent and present crimes of the State. Already many of the young seem to regard the facts of political life somewhat as men of the pre-industrial age regarded the impersonal realities of the physical environment—they are there, and must be dealt with, like a blizzard, a landslide, or a forest fire. It is as though the young have found a common-sense position in Thoreau, who said: "As for adopting the ways which the State has provided for remedying the evil, I know not of such ways. They take too much time, and a man's life will be gone. I have other affairs to attend to."

This might be identified as rejection of the demands of "total" ways of thinking. It can be condemned as "irresponsible," yet it would not prove so at all if those "other affairs" turn out to be of a sort which, in time, bring into being a social community absolutely resistant to excessive political claims on human beings.

But whatever individuals variously conclude about the political question, this general attitude might be the best one to adopt in relation to the education of the young. It would, after all, be entirely consistent with today's advanced socio-political thinking, which embodies the themes of decentralization, local autonomy, and non-violence, while men who have devoted their lives to the attempt to put these forms of order into practice commonly agree that they will not work without the concurrent development of organic infra-structures rooted in individual responsibility, ethical vision, and increasing competence and self-reliance. These needs are sufficient indication of what would be the social aspect of a program of education.

How might a new school test itself or measure its achievements? This is a difficult question. One test of a business, which deals with finite values or goals, is self-sufficient survival, but a school is partly and principally concerned with intangibles, and here the consensus standards which people commonly turn to may be far from the best. Yet what else is there to go on?

One answer is not difficult at all, but requires the presence of recognizable educational genius. The literature of education seems largely founded,

in its original inspiration, on the appearance from time to time of extraordinary individuals whose influence on children is manifestly wonderful and fruitful. Such people are a light in the darkness, and they are sometimes permitted to establish memorable schools. But what if you can't find such a person? The advice of one man who participated in a teacher-run school in England—a school without a head—may point to the only remaining solution:

> It is essential for any school community to state its purpose continually and that its members should understand it. Otherwise the adults may imagine that they have assembled for the sake of their own personal relationships, or that they must live under one roof, or subsist in poverty, whereas the essence of community is shared responsibility, and these other characteristics, though common, are incidental. That a school is run without a head is of far-reaching significance, but discussion of it may throw too great an emphasis on the role of adults in a school. . . . a joint enterprise depends for its success, more than other systems, upon there being a nucleus of people whose friendship and identity of practice, even more than their theory, has been tested by time. Given this, newcomers can be absorbed, and a proportion carried who do not fully share the aims. But where there is rapid expansion in total numbers it is a mistake to imagine that the nucleus, which can only grow with time, has expanded, too.

REVIEW
HOW GREAT WORKS ARE WROUGHT

IN the October 1969 issue of the *Journal of Aesthetic Education* Robert McClintock (philosophy department, Teachers College, Columbia) defends Ortega y Gasset as educator and teacher of philosophy. It seems that the liveliness and vivid imagery of Ortega's prose are held against him by those who count themselves authorities on what is philosophy. As Mr. McClintock says: "Many believe that the only task for philosophy is to add a third great synthesis to those of Aristotle and Aquinas. To contribute to this endeavor a thinker must publish his thought in systematic treatises." Not content with suggesting that Ortega lacked philosophic vision, one of these confident proprietors of thought spoke of Ortega's "frightening responsibility before history for having exchanged philosophy's noble mission for acrobatic sport."

Mr. McClintock sets out to show that Ortega proved his capacity as a teacher precisely by his refusal to lay out philosophical conclusions that could be accepted, item by item. He knew too much about both teaching and learning to mistake this unimaginative transaction for growth in understanding. It was plain to him that no one learns anything of importance except by exercising a determined independence of mind, and that the teachers of "systems" tend to discourage the questioning that leads to the sort of birth Socrates was interested in. A twentieth-century Socrates in his way, Ortega wrote in confidence that his audience was capable of the same sort of discoveries that had come to him and devoted his art to their encouragement. Why should anyone attack him for this? Apparently, his clerical critics find objectionable the effort the reader of Ortega needs to make to find out what he thinks. In short, they wish to eliminate from the teaching of philosophy precisely what will alone make a man a philosopher.

One thinks, here, of Schopenhauer's presumption in placing the philosophic achievements of Kant above those of Plato and the authors of the Upanishads. To admire the abstract splendor of Kant's idea of the thing-in-itself—his isolation of it from the phenomenon—doubtless has justification, but to press it as a great advance over the Indian doctrine of Maya and Plato's allegory of the Cave seems another instance of the characteristic conceit of Western intellectuality—that verbal articulations of conceptual abstraction can lay final siege to and even contain the highest truth. That they are suggestive representations seems certain enough, but abstractions which tend to shut out nonverbal forms of cognition soon turn into tyrants who claim territories they can never rule or even map. What if Plato and the Upanishadic writers both knew that an intellectuality which still distinguishes knowing from being is a dangerous pitfall—the one warned against by Lao-tse? What if they understood, better than Kant, that intimation is almost always a better teacher than definition? A shimmer may have more truth in it than a static line. There are sound reasons, perhaps, for the fact that both Plato and the Upanishads still enjoy a large audience of intelligent readers throughout the world, while Kant is the study of specialists. People gain from myth and dialogue what didactic instruction can never teach them.

Something along this line seems Mr. McClintock's point throughout his able defense of Ortega. (His book, *The Self and Its Circumstances: Ortega as Educator*, a footnote informs us, is to be published by Teachers College Press.) He is at his best in showing that Ortega is always holding a dialogue with his readers, seeking to evoke the response that only this form of communication permits:

> A strong tradition in pedagogical theory suggests that the most profound teaching takes place in the course of dialogue. Here we encounter a great paradox of pedagogy: when men meet as equals they learn the most from one another. . . . Critics of

> Ortega's prose object to his reluctance to write monologues that would amount to a summa of his system. In a monologue, the speaker presents his listeners with finished thoughts that provide a ready answer to one or another problem. The center of interest in monologue is not the problem, but the speaker's answer to it. We tolerate monologues best when they are delivered by wise, old men, for in reverence we naturally refrain from questioning and criticizing, that is from seeking to enter into dialogue. In a monologue the speaker, not the problem about which he speaks, is the object of real attention. Notoriously, monologues put problems to rest because such a speech, being a closed, self-contained proclamation of conclusions, usually destroys its hearers' interest in the question. In contrast, the dialogue is inherently open and whereas a claim to knowledge is a condition of monologue, a recognition of ignorance is a condition of dialogue. The participants in a dialogue are equal, not in intelligence learning, or verbal skill, but in that all profess a lack of knowledge (not opinions) about the matter at hand. This recognition that no participant has a prior claim on the final word means that the problem at issue becomes the central concern In this way the interest of the participating audience is heightened; and the pedagogical assumption that gives great educative significance to such dialogue is the conviction that if the participants can be engaged in examining a real problem, whatever answer they work out will affect their character and the life they lead rather than merely the opinions they profess.

Dialogue, here, does not mean the superficial form of literary composition, but the provocatives it contains. The reader of a Platonic dialogue does not merely "follow the argument," but finds it necessary to interrogate himself, his circumstances, and his times. So with Ortega's essays:

> By virtue of his ability to engage his readers in reasoning about particular problems, Ortega was master of philosophic dialogue. He did not state his thoughts so that they could be easily spoken by others. He rarely gave a systematic, abstract statement of a principle; instead he would treat principles in relation to particular situations, leaving it to the reader to *make*, not repeat, the abstraction. Further, he usually presented incomplete arguments, in which there would be gaps that the reader would have to fill for himself.

Certain it is that in all Ortega wrote he was concerned to reach his readers in a manner that would affect their own lives. Philosophy, for him, was a matter of life and death. He was not displaying his talents but seeking to expose essential human needs. He sought by his illustrations drawn from daily life to draw the reader into the practice of philosophy in daily life:

> An appreciation of this pedagogy, which is the most difficult to practice, is essential to understanding Ortega. One can comprehend this pedagogy only by practicing it, and consequently he wisely refrained from particularizing the methods by which it should be pursued: "whoever wishes to teach us a truth should not tell it to us, he should simply allude to it with a concise gesture, a gesture that suggests in the air an ideal trajectory along which we can glide, arriving by ourselves at the foot of a new truth."

He sought initially to educate Spain, to teach the use of concepts to his countrymen, and he wrote simply, yet brilliantly, with this in mind, showing how the meanings of things are illuminated by general ideas. The method was one that would serve all the world. Rooted in Ortega's method was a fundamental respect for those whom he addressed, a confidence in their resources and powers. This is well developed by Mr. McClintock:

> Anyone who intends to teach by the pedagogy of allusion must risk being misunderstood and he must have faith in the ultimate competence and good will of others. Ortega took that risk and he had that faith. "There is little probability that a work like mine, which, although of minor value, is very complicated, which is full of secrets, allusions, and elisions, and which is throughout completely intertwined with my vital trajectory, will encounter the generous soul who truly desires to understand it. More abstract works, freed by their intention and style from the personal life out of which they surged, can be more easily assimilated because they require less interpretive effort." Here we arrive at the choice of Hercules that any popularizer must make, one way or the other. Have I confidence in the capacity of the audience to make an interpretive effort, or do I distrust its ability? Such confidence leads to the way of difficult virtue; such distrust beckons down the path of easy pleasure. Ortega believed that a man mastered himself and his world by making an interpretive effort, and he

> therefore believed that a writer misused his readers when he made their interpretive effort unnecessary, for by doing so the writer encouraged the reader to be lax before life and to expect life to reveal itself replete with a ready-made discipline. . . . All such communication is diseducative, because no matter how persuasive, entertaining, or informative it may be, it degrades the recipient's intellect by habituating him to distrust his interpretive powers. And since, as Ortega contended, our intellect is our most precious tool for living, prudent men will either avoid diseducative communication or render it less harmful by explicating to themselves the reasons why it produces diseducative effects. Ortega's writing gained its pedagogical power from his determination to respect the intelligence and intellect of his audience.

Mr. McClintock's final statement is a rare tribute to Ortega:

> He who leads an examined life does not desire to disseminate the conclusions of his inquiries, but to provoke others to embark on their own rational examination of experience. This procedure, which is the liberal one, has the drawback of unpredictability, but it is the true basis of an open society. Once the power to reason has been awakened throughout the community, it becomes difficult for established elites to control events, and there arises the possibility that the community may find within its members an unsuspected capacity for truth, beauty, and goodness. Each writer must choose whether to spread the results of reason or the powers of reason. Ortega chose the latter course; for he believed that when a mind comes alive and begins to vibrate with the powers of reason, its duty is not to think paternally on behalf of those who are still inert, but, with the ineluctable force of resonance, to vibrate in sympathy with other reasoning minds and to augment with the increment of each the power of the whole, so that all are awakened and a great work may be wrought.

COMMENTARY
A NEGLECTED PRINCIPLE

THE splendors of natural forms, it seems clear from this week's "Children" article, become possible through the capacity of Nature, as designer, to set just the right limits. Harmony arises out of limitation. Harmony among men, it seems equally clear, because of their consciously creative powers, is obtained by *self*-limitation. An artist who does not practice self-criticism and fails, therefore, to limit the flair of his ability, mars his work with self-indulgence. And the man who refuses to limit himself has often to be controlled by some kind of authority, to prevent him from harming others as well as himself. Yet outside control of the kind of intelligence which is capable of self-limitation is always ineffectual, and when widely applied has generally destructive effects, weakening the morale of the human community and degrading the quality of social life. Both private and public affairs acquire an ugly and cruel atmosphere.

No great research or heavy treatises are needed to show that the basic defect of modern technological civilization is lack of the capacity for self-limitation. And evidence of the inadequacy of external control accumulates on every hand. It is at root a *philosophic* defect, growing out of reliance on knowledge which excludes the art of self-limitation. Virtually adolescent doctrines of ambitious striving, of self-aggrandizing competition—of triumph, not over one's own weaknesses, but those of others—and conscious self-assertion and domination have naturally produced counter-theories of external policing, of the necessity for lynx-eyed watchdogs of the public good, and finally militant advocacy of compulsion to establish crude patterns of conformity to serve the common welfare. Out of all this leashed acquisitiveness and unwilling generosity will come, somehow, the ingredients of the Good Life; or so we are told. The claim is practically unbelievable, yet debates involving such questions go on and on.

The argument which ranges the do-what-you-please idea of freedom against we-must-make-these-people-behave theories of social order can produce only sound and fury, since neither contention has a really human objective. Good men have always practiced self-limitation and the best men try to teach it to others who still heave practical wisdom to acquire. A society which ignores this principle cannot provide good education for the young, and at the same time it tends to become a society which is dominated by a certain kind of cleverness which places its processes beyond the grasp of the majority and thus condemns them to dependency and ignorance. Equality becomes impossible in such a society.

Men who are willing to project and develop that sort of society have narrow conceptions of human selfhood. Their knowledge has no awareness of virtue, so that, in the long run, it is revealed to be not knowledge but only a proud technique. Careless of the principle of self-limitation, which it never knew, such knowledge is no more a sign of authentic human development than the muscles of a wrestler. A man with over-developed intellectual technique, or any skill which dazzles to the point of obsession, is as much of a distortion of human life as a gladiator.

There are no power solutions for the philosophic flaws of civilizations. There are no manipulative answers to problems which arise out of reliance on manipulation. There is no solution at all for such problems, except through minds which "come alive," and then, refusing "to think paternally in behalf of those who are still inert," pursue the great work of general education.

We might note here, in conclusion, the sort of self-limitation Ortega practiced as a teacher: "Whoever wishes to teach us a truth should not tell it to us; he should simply allude to it with a concise gesture." A good teacher never deprives his learners of the joy of independent discovery, which is not only pleasurable, but strengthening.

CHILDREN
. . . and Ourselves
VISUAL TREASURE

THERE are wonderful inner connections between a book discussed here on Feb. 4—*An Adventure in Geometry* (1957) by Anthony Ravielli—and a more recent volume, *Nature as Designer*, by Bertel Bager, a Swedish surgeon (produced by gravure in Sweden—Reinhold, 1966). Dr. Bager has had a lifelong love affair with the beauty of forms found in nature. In this book there are 191 photographs of somewhat neglected forms—the fruit and seeds, rather than the flowers, of plants. More than fifty illustrate wild plants, while others are of specimens from private and botanical gardens, with some from museum collections, and a few collected by the author in Portugal. Most of the photographs were taken by Erik Lundquist, of the gravure concern responsible for the exquisite reproduction. There is brief, informative text with each picture, and while one turns from the wonder of the forms to mere words with a natural reluctance, they are always worth reading. The following is on the henbane:

> Those who examine seedcases and fruits with the eyes of a potter must feel happy when they see the beautiful cups of the henbane, standing in a long row along one side of the strong stem. The fruits are built like vases with a distended base and a slender waist from which the upper half widens into five pointed lobes. . . . When spring comes, the tissue of the mantle, after long exposure to the weather, gradually falls away, leaving a fine filigree cup. This cup is, however, only a protective covering for an inner seedcase fashioned like a small casket on a wide base, with a curved lid. This casket is so like a type of low, bronze, Chinese bowl known as Yu, of the Shang dynasty, that it is difficult to dismiss the idea that the first artist who made such a vessel must have been inspired by the henbane's seed capsule. . . . Henbane is poisonous, and men have long made use of the poison. It is very likely that the hallucinations which the Oracle at Delphi needed to perform her duties as a soothsayer were produced by a poison from the henbane. Murderers and primitive medicine-men made decoctions from the plant. It is still in the Pharmacopoeia as the source of hyoscine, a sedative. The beautiful fruits symbolize a medicine glass as well as the poison cup.

Turning the pages of this book leaves the reader with the feeling of encounter with three-dimensional forms which are eternally *right*, and the analogues with art-forms are numerous and inescapable. One should not enlarge much on the directions given the imagination by such a book, since a stimulus of this sort is better left to declare its own potency. An obvious value of the illustrations lies in the wide range of the possibilities of "seeing" which will here be recognized by some urban readers for the first time. Children will of course respond spontaneously and teachers will find suggestion of a variety of enterprises in the field.

The connection with Mr. Ravielli's book on the occurrence of geometrical forms throughout nature is made apparent in a foreword to Dr. Bager's work by Harry Martinson. It is a connection born of reflection, leading beyond the sensuous delight of the forms. Mr. Martinson begins:

> How nature works with the motion and resistance of the elements is well illustrated on a windowpane, where frost has executed a fantastic landscape, with palm groves, ferns and laciniated mosses, all elegantly designed by the impact of the currents of warm air in a room against the cold surface of the glass. But why have such patterns as these appeared on the glass, so imitative of living nature that, although we see them a thousand times, they always arouse our wonder?
>
> It may be that there are certain fundamental laws regulating design, laws that are generally valid, in living and inanimate nature and that there is a large, yet limited number of possible shapes among which nature can choose, but no more.
>
> There is strong evidence that this is so. If there were unlimited choice in design, it would be impossible to speak of laws of form; we should have anarchy, an infinite, chaotic multitude of whims of nature, differing from one occasion to another.
>
> How can we formulate a natural law of design? It cannot possibly be concerned with size, only with form, and must be valid for suns as well as for the tiniest atom.

These few questions reveal the crucial importance of precise *limits*, without which there could be no order in the production of natural forms. Limit has the same importance in art, as William Blake insisted. While a wild flight of the imagination may have subjective splendor, giving the would-be creator feelings of exhilaration, if he lacks the capacity to set limits no forms of imagery will come into being. They will never get defined.

Geometry, as presented by Mr. Ravielli, is study of the various applications of limit found endlessly throughout nature, yet the *principles* of limit are far from endless: actually, they are few, and comprehensible by man. Only their combinations are many. Mr. Martinson continues:

> Let us imagine a sculptor's studio. We will imagine that the sculptor's name is Nature, and that he has been asked to calculate how many different figures can be made of the sphere. When he has done this, he will be given a sphere for every figure he is to carve.
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> Nature, the sculptress, ponders and calculates. She soon comes to the conclusion that the number of spherical figures must be limited. In any case, it is not great, the figures must be very much alike. And since all the variations, of whatever kind they may be in a geometrical sense, can be recognized as basically a sphere, the whole question of form very definitely has been delineated.

These are abstract considerations which point to the natural linkages between the study of art and the study of nature, leading, perhaps, to introduction of the feelings which lie behind human conceptions of symmetry and ideas of beauty. These are lines of development which may have spontaneous origin in Dr. Bager's book. Introducing it, Mr. Martinson says:

> Nature in her design and man in his art meet somewhere beyond the limits of imitation—in something universally common to both, in the geometric laws valid for the whole universe. Deviations from ideal shapes give rise to variations in form in both art and nature. . . .
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> What Bager is seeking above all, is the beauty of form in nature. Displayed in many cabinets is his treasured collection of specimens amassed over the years, much like a gallery showing the fascinating forms of simple things in nature and emphasizing the theme, "Nature as Designer."

We might recall here that the idea of harmony, on which ancient Greek culture was based, obtained visual presentation in Greek education through the teaching of geometry, affecting not only sculpture and architecture, but also poetry and morality. Ideas of justice, fitness, and propriety were all rooted in this conception of harmony—for instruction in which, as we may see from Dr. Bager's book, Nature is the first teacher.

FRONTIERS

Emerson's Vast Unofficialdom

IN the concluding chapter of *Literature and Technology* (Random House, 1968), Wylie Sypher recalls Wallace Stevens' remark that poetry is "an unofficial view of being," going on to suggest that "official" recognition or sanction for any creative enterprise is usually disastrous, since it adds the factor of "legality" to what has been already weakened by conventional approval:

> The official has been as damaging in the arts as it is in technology; the history of the modern arts has been one of resistance to academic programs. In our technological culture the artist s vocation is resistance to human engineering, which is a perversion of technology. Sometimes his only mode of resistance is insolence. It is an insolence that can be justified only by considering that officials are even more colossally insolent in attempting to engineer human beings. In resisting, of course, the artist should distinguish between the official and the traditional. The official is the programmatic, the traditional is not. And everywhere mere programs are being substituted for traditions. In fact, a program might be called a devalued and unscrupulous form of tradition.

This seems an excellent reason for separating the government from art as well as religion; and there is probably justification for barring it from education, too, but what an unsettling proposal that would be! Gandhi believed that the State should have no authority over schools and teachers, a view far too radical for most of the supposedly "advanced" nations of the present. It would involve getting rid of the sanctity of the national idea, and this means, to speak practically, the transfer of the sense of reality from the official to the unofficial. Even accomplished men of our time are still very far from any such emancipation. This is evident from the number of persons for whom success means having their theories or other works approved or adopted by political power—that is, made "official." It is difficult to imagine a weakening of the national idea while this attitude persists as a controlling factor in the behavior of so many.

Those who regard political oppressions as the chief evil of the times might do well to devote more effort to showing the importance of ideas and activities which gain nothing by official sanction, and cannot, indeed, survive it, instead of arguing against the state solely on evidence of the wickedness of power. They now might even be charged with covert worship of power, since they seem to think that nothing can be done without its destruction.

Emerson is one of the best examples of effective thought which ignores power. In an essay seldom referred to, "Nominalist and Realist," Emerson treats a polarity of opinion that was fiercely debated during the Middle Ages. One hardly recognizes in Emerson the touchy matters which, in the twelfth century, could lead a man with unofficial opinions to persecution and virtual exile, as Peter Abelard found to his sorrow. Authoritative power has its most blighting effect when applied to works of the mind.

For comparison with Emerson's use of the controversy there is Henry Adams' sprightly account of the debate between Abelard and William of Champeaux in *Mont-Saint-Michel and Chartres.* Actually, Abelard, being a clever young man, was quite willing to rise to eminence by threatening to report William to the UnChristian Affairs Investigating Committee of the day. William, a Realist, had contended that Deity or Divine Substance being everywhere, it reached into everything. Since it was a Universal it could not be divided. Abelard's refutation of William, as reported in his own words, was this: "A grave heresy is at the end of this doctrine; for, according to it, the divine substance which is recognized as admitting of no form, is necessarily identical with every substance in particular and with all substance in general." Adams' extended (and freely improvised) account of Abelard's argument has practically a Joe McCarthy finish:

> . . . all energy at last becomes identical with the ultimate substance, God himself. Socrates becomes God in small Judas is identical with both; humanity is of the divine essence, and exists, wholly and undivided, in each of us. . . . humanity exists, therefore, entire, identical, in you and me, as a subdivision of the infinite . . . energy, or substance, which is God. I need not remind you that this is pantheism, and that if God is the only energy, human free will merges in God's free will the Church ceases to have a reason for existence, man cannot be held responsible for his own acts, either to the Church or

> to the State; and finally, though very unwillingly, I must, in regard for my own safety, bring the subject to the attention of the Archbishop, which, as you know better than I, will lead to your seclusion, or worse.

William took counsel with well-placed friends in the hierarchy and decided to retire from the field. That later in his life Abelard was overtaken and punished by Church authority for impudent exercises of reason concerning the Mystery of Trinity might be regarded as poetic justice. (William, however, for his judicious silence was rewarded with a bishopric!) Adams points out that Abelard was after all an intellectual adventurer, no real churchman, not an organization man, and he was finally brought to trial on charges against which defense was hardly possible: "He treats Holy Scripture as though it were dialectics. It is a matter with him of personal invention and novelties. He is the censor and not the disciple of the faith; the corrector and not the imitator of the authorized masters." His condemnation and silencing were only a matter of form. His real offense was subjecting official truth to the analysis of reason—something completely intolerable.

The story of Abelard's encounters is engaging, but poor preparation for Emerson's wonderful exploration of the psychological realities lying behind the-Realist/Nominalist debate. The Nominalist view is now identified as the tough-minded scientific or positivist position which maintains that general ideas are but deductions from numerous sets of particulars—mere names. The Realists—latent heretics to a man—thought them higher realities, Platonic Forms. Emerson gives us no historical study; he does not list the Idealists who ranged against the Materialists in this contest—which is by no means over—but shows the visioning Realist and the stubborn Nominalist in everyman. He illustrates how intuitively unifying tides break on rocks of separation and difference, yet ever rise again. But Emerson will nail nothing down, while the scholastic disputants thought of nothing else. They wanted their opinions to be declared *official.* By contrast Emerson plays with the controversy, yet he cannot be denied serious intent. He is at pains to show that however sliced and reduced our lives, we nonetheless live by general ideas. Does this not make them *real.;* What indeed is the measure of reality?

> In the famous dispute with the Nominalists, the Realists had a good deal of reason. General ideas are essences. They are our gods: they round and ennoble the most partial and sordid way of living. Our proclivity to details cannot quite degrade our life and divest it of poetry. . . . I am very much struck in literature by the appearance, that one person wrote all the books; as if the editor of a journal planted his body of reporters in different parts of the field of action, and relieved some by others from time to time; but there is such equality and identity both of judgment and point of view in the narrative, that it is plainly the work of one all-seeing, all-hearing gentleman. . . . I find the most pleasure in reading a book in a manner least flattering to the author. I read Proclus, and sometimes Plato, as I might read a dictionary, for a mechanical help to the fancy and the imagination. I read for the lustres, as if one should use a fine picture in a chromatic experiment, for its rich colors. 'Tis not Proclus, but a piece of nature and fate that I explore. It is a greater joy to see the author's author, than himself. A higher pleasure of the same kind I found lately at a concert, where I went to hear Handel's Messiah. As the master overpowered the littleness and incapableness of the performers, and made them conductors of his electricity, so it was easy to observe what efforts nature was making through so many coarse, wooden, and imperfect persons, to produce beautiful voices, fluid and soul-guided men and women. The genius of nature was paramount to the oratorio.
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> This preference of the genius to the parts is the secret of that deification of art, which is found in all superior minds.

Yet there is this other case:

> My companion assumes to know my mood and habit of thought, and we go on from explanation to explanation, until all is said which words can, and we leave matters just as they were at first, because of that vicious assumption. Is it that every man believes every other to be an incurable partialist and himself an universalist? I talked yesterday with a pair of philosophers. . . . Could they but once understand, that I loved to know that they existed, and heartily wished them Godspeed, yet, out of my poverty of life and thought, had no word of welcome when they came to see me, and could well consent to their living in Oregon, for any claim I felt on them, it would be a great satisfaction.