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ON TAKING CHARGE

LINES of thought, which may begin almost anywhere, have a deceptive precision. There seems great clarity, for example, in the question, "What do you want?" The inquiry is forthright, but obscurity immediately sets in with the answers. One person may list a number of objectives or possessions, while another will simply say: "I want to do well whatever I set out to do." Then there are those—the few—who say that they want to take charge of their own lives, the further question they have to answer being: "How far is this possible?"

A life is a unit in an order of life. Understanding the order is the condition for living a well-ordered life. We need to know what the limits are, and what are the rules or laws. Philosophy, one could say, is the discipline which attempts to describe the limits, the rules, and the options of life. What philosophy has to teach us is always incomplete, since living a life is a creative act whose result can never be defined in advance. Yet some lives, manifestly, are better than others.

We can of course make other deceptively precise statements. Without fear of contradiction we can say that life is the pursuit of good and that philosophy gives the pursuit direction. Truth is a useful synonym of good because it brings into play the question of knowing. Has anyone ever really known the Truth? We suspect so, but we can hardly claim to *know* so. Yet there are records which are persuasive. There are expressions in words which, while they are not the truth, provide subtle evidence that they are based on it. We keep those records alive and circulating for this reason. Curiously, some of the records provide statements which compel assent, while others do not. The compelling statements, so long as they compel, are known as science. They are concerned with what *is*—as for example that humans are born, live, and always die, and that in living they go through certain unavoidable changes which alter their relations with the field of existence. Adolescence is an example. We all have to go through it. Goals change as a result. We have other words to indicate the variance of goals—childhood, maturity, old age. There are almost countless books on these areas, filled with facts and theories; there may even be wisdom in some of them, but they seem to have little effect on human behavior, although they sometimes initiate fads which come into and go out of style; or they may cause revolutions which, again, leave the basic relations of human beings largely unaffected.

Yet we find it almost impossible not to believe in "progress" of some sort. If there is no progress then it seems that life has no meaning. Even complete cynics have a sneaking suspicion that some good may result from effort, and meanwhile they live emotionally as parasites on the hopes of others, as do college professors who declare that life has no meaning and teach this lifeless credo to the children of men and women who send them to school for the "higher learning" in the hope that they will have better lives as a result.

But what of the statements which do not compel? They are the reason for philosophy. It is better, Socrates said, to suffer than to do wrong. The matter, as we know, is arguable. As Hannah Arendt remarked years ago (in the *New Yorker,* Feb. 25, 1967):

> To the philosopher—or rather, to man insofar as he is a thinking being—this ethical proposition about doing and suffering wrong is no less compelling than mathematical truth. But to man insofar as he is citizen, an acting being concerned with the world and the public welfare rather than his own well-being including, for instance, his "immortal soul" whose "health" should have precedence over the needs of a perishable body—the Socratic statement is not true at all.

What was the occupation of Socrates? He explained it at his trial, as reported in Plato's *Apology:* "It seems to me that God has attached me to this city to perform the office of such a fly [gadfly], and all day long I never cease to settle here, there, and everywhere, rousing, persuading, reproving every one of you." A little earlier he had said: "I spend all my time going about trying to persuade you, young and old, to make first and chief concern not for your bodies, nor for your possessions, but for the highest welfare of your souls, proclaiming as I go, 'Wealth does not bring goodness, but goodness brings wealth and every other blessing, both to the individual and to the state'."

Quite evidently, and as Hannah Arendt has pointed out, for most of the men of Athens, these were not compelling statements, nor were the arguments he presented in the dialogues compelling, either. He did not win his case and had to die. We do not now talk very much about the soul and its welfare. Present-day reformers speak rather of the needs of the poor, of the sufferings of victims of injustice, maintaining that talk of the soul betrays little more than an interest in private salvation, with the devil taking the hindermost, those indifferent heretics who fail to subscribe to the one true creed. Yet there is a sense in which neglect to care for the soul is reprobated by social philosophers. What we call "morality" was once recognized as the order of human community, in which we are all parts of one another. The soul has at least a functional reality in this viewpoint, since whatever else it may be, metaphysically, it is for us the organ of moral perception. It provides instruction in what we *ought* to do. Yet the sense of "ought" plays little part in modern life. It seems centuries since the modern world has had even a theory of moral ought that exercised notable influence. In the opinion of John Schaar, political philosopher, other persuasions were uppermost two hundred years ago. He wrote in an essay on America: "At the time of the founding, the doctrine and sentiment were already widespread that each individual comes into this world morally complete and self-sufficient, clothed with natural rights which are his by birth, and not in need of fellowship for moral growth and fulfillment. The human material of this new republic consisted of a gathering of men each of whom sought self-sufficiency and the satisfaction of his own desires."

While there are institutions which lay claim to providing moral guidance and exhortation, the ineffectuality of these measures needs no attention. One has only to read the papers for evidence that very few of us feel in need of self-improvement, and that the pursuit of wealth and power has fully as much preference as it had in the days when Socrates debated with Callicles unsuccessfully in Athens. This being the case, we are led back to the beginning, to the question of what it means to be in charge of one's own life. The expression is vague enough. What sort of life? How and to what extent can it be "one's own"?

Here, to come down to earth, we need examples, and a current book, *Vectors and Smoothable Curves* (North Point), by William Bronk, gives one more useful than most—Thoreau. In a long and nourishing essay Mr. Bronk begins with a defense of Thoreau against the charge of being "anti-social." There would be warm human relationships in the society worth having as Thoreau conceived it, and he would settle for nothing less. With some exceptions the society of his time was not of his choosing. He became a social philosopher in explaining why. Slowly his conception of a good life is made to grow upon the reader. Mr. Bronk names neighbors whom Thoreau respected and quietly liked, adding that others were led to mistrust him.

> They could not know in what high regard Thoreau was waiting to hold them. Those who lacked a serene assurance in their way of life were troubled by what they sensed as Thoreau's opinion of them because at bottom they knew it was their own opinion and they feared to admit it. Others were suspicious of Thoreau's life because it was different

from their own, or because they were jealous of his greater freedom. Since he worked for hire only enough to supply his moderate wants, the greater part of his time was free to be used in whatever way he saw fit. Much of it he spent in observing nature, something at which his neighbors seldom looked, and in writing, the results of which they rarely saw or cared to see. He was therefore regarded by most as odd or a loafer. Meeting some men hauling logs in the woods, he muses that they think him a loafer and he thinks them drudges for gain, and yet their employment is more alike than they suspect. He has his work in the woods where he meets them, though his logs do not go to the same mill, and he makes a different use of skids.

Reading Thoreau is more like looking at a landscape than reading a book. He wrote that way because that was how he lived. He isn't making point after point in close succession, but pursuing a quiet meditation in public, moving from the ordinary to the extraordinary with hardly a break or pause. He instructs in how to see the extraordinary in the ordinary—this is his peculiar virtue. He enables us to see it through his eyes, and makes us wonder if we shall ever be able to see it through our own. Well. some do. Mr. Bronk is an example of a man who has learned from Thoreau, and to learn only a little from him is to become worth reading, too. It is something of a compliment to this writer that one must look carefully for quotation marks to see whether you are reading Bronk or Thoreau.

It was the Christian reformers whom Thoreau most disliked. Three whom he met together—lecturers on Slavery, Temperance, and the Church—provoked him to say: "They addressed each other constantly by their Christian names and rubbed you continually with the greasy cheeks of their kindness." One in particular offended him past endurance.

He wrote a book called *A Kiss for a Blow* and he behaved as if there were no alternative between these, or as if I had given him a blow. I would have preferred the blow but he was bent on giving me the kiss when there was neither quarrel nor argument between us. . . . It was difficult to keep clear of his slimy benignity with which he thought to cover you before he swallowed you and took you fairly into his bowels. It would have been far worse than the fate of Jonah. I do not wish to get any nearer to a man's bowels than usual. . . . I do not like the men who come so near me with their bowels. It is the most disagreeable kind of a snare to be caught in. Men's bowels are far more slimy than their brains. They must be ascetics indeed who approach you by this side. What a relief to have heard the ring of one healthy reserved tone!

One has little difficulty in deciding how Thoreau would view the plans and plots of modern commercial "community" planners who have all our social as well as practical needs figured out. A church within walking distance for spiritual welfare. Market center and stores nearby. Some trees to make the place pretty, and winding roads to slow down the cars. Duplicate houses only every third structure, with a different colored paint. A bowling alley somewhat near, perhaps, a tennis court, certainly a swimming pool. What more could anyone want, besides the money required to live there? One such development, nearly the largest in the country, developed so warm a concern among neighbors that those living close to one household, where the front room curtains were always closed, applied to the town's friendly psychiatrist to ask if such reticence and withdrawn privacy might not be a symptom of neurosis needing attention.

Silence was a natural part of Thoreau's ideal environment and a resource his health required. Mr. Bronk has a good passage on this:

"Silence," says Thoreau, "is the communing of the conscious soul with itself. If the soul attend for a moment to its own infinity, then and there is silence. She is audible to all men at all times, in all places, and if we will, we may always hearken to her admonitions." But most of Thoreau's contemporaries, as most of ours, had no desire to listen to the silence and never heard it. There are very few problems answered in such communion that do not have ready-made solutions in habit and convention. These solutions are usually found to be much simpler than an attempt to find real ones and with a little snipping and cutting here, a little squeezing and lacing, or even an amputation there, we make shift to fit one to the other. And we never know because we never really faced ourselves in the problem, whether the

restrictions and pains and deadenings we underwent were due to the problem itself or to the conventional solution we chose. Thoreau felt that there were two voices one could listen to one's own in silence or someone else's. It mattered very little to whom the second voice belonged. The most usual likelihood would be that it belongs to no one at all, but is merely the generalized voice of convention, or of one's region or circumstance, and therefore since it fits no one's particular nature, no one need follow it. Let each man follow his own nature. Such was Thoreau's recommendation, a recommendation which was moreover a sacred duty because he thought so highly of silence. Our existence in any other circumstances became a neglect and abuse of life,—a sacrilege. Likewise our relations with one another became travesty unless we were first of all ourselves and acted according to our silence. That was why we were to give men the best of our wares, our real persons, and not "dole out of ourselves to suit their weaker and stronger stomachs." It involved also a desire to be sure that a relationship was real and worthwhile by knowing the worst and best of each other, just as silence was always a way toward knowing because it cut us off from the safely usual patterns of thought and behavior, accepted perhaps without questions, and put us where there was nothing known and no way to know; no way to act but our own, and nothing to insulate us from truth however shocking.

Thus Thoreau was, not quite in our time but close to it, a true Platonic man of the sort described in the closing words of the ninth book of the *Republic*. Such a man, as a philosopher, Plato says, will lull and tame the brutish part of his nature, enabling the soul to return to its nature at the best, attaining to "a much more precious condition in acquiring sobriety and righteousness together with wisdom, than the body does when it gains strength and beauty conjoined with health, even as the soul is more precious than the body."

And will he not deal likewise with the ordering and harmonizing of his possessions? He will not let himself be dazzled by the felicitations of the multitude and pile up the mass of his wealth without measure, involving himself in measureless ills. . . . And in the matter of honors and office too this will be his guiding principle. He will gladly take part in and enjoy those which he thinks will make him a better man, but in public and private life he will shun those that may overthrow the established habit of his soul.

Then, if that is his concern, he said, he will not willingly take part in politics.

Yes, by the dog, said I, in his own city he certainly will, yet perhaps not in the city of his birth, except in some providential conjuncture.

I understand, he said. You mean the city whose establishment we have described, the city whose home is in the ideal, for I think that it can be found nowhere on earth.

Well, said I, perhaps there is a pattern of it laid up in heaven for him who wishes to contemplate it and so beholding to constitute himself its citizen. But it makes no difference whether it exists now or ever will come into being. The politics of this city will be his and no other.

That seems probable, he said.

On every count, Thoreau qualifies as both Platonic philosopher and Guardian. Although he said that "I came into this world not chiefly to make this a good place to live in but to live in it, be it good or bad," this, we may think, was realism and not indifference. To improve the world as a place to live in would mean not tinkering with the world—which he found, in its own way, already ideal—but affecting the hearts of men, and how does one do *that?* His answer was to live as much as possible as he thought one *ought* to live. Is there a better answer? If so, the most ardent revolutionists have not discovered it.

Thoreau, then, lived according to a pattern "laid up in heaven," no matter what other men chose to do. And as Mr. Bronk suggests, "we can say it was a kind of golden age that Thoreau lived in."

As a matter of fact, his particular region during his time has sometimes been called golden. Still I think it would be a mistake to refer this quality in Thoreau to any external factors or to the general character of life in New England of the nineteenth century. Thoreau could have been as he was in, for example, our times too. The multitude of roles that he saw opening up before him on this and the other continents is not to be taken as an example of thinking peculiar to that America of the past which had a frontier, and therefore of thinking no longer applicable.

What of politics? Thoreau's dream of an ideal politics was of a politics that would become entirely unnoticeable. This arrangement would contract our newspapers to about one tenth their present size, which would be good for our eyes as well as for the forests. Mr. Bronk summarizes (from "Life Without Principle"):

> He wished for a government so well administered that private men need never hear about it. It appeared to him that those things which most engaged the attention of men, as politics, for instance, were vital functions of society, to be sure, but that their daily routine should go on like the vital functions of digestion and circulation of the blood, which in health we know nothing about. A wise man was as unconscious of movements in the body politic as he was of the process of digestion and circulation of blood in the natural body. These processes were infra-human. A consciousness of them was the equivalent of a dyspepsia.

Finally—

> Thoreau felt that it was such a joy to satisfy any of our wants simply and truly that he never liked to buy anything of what was necessary to his life if he could make it or grow it himself. To him, time spent in earning money for something he wanted was a postponement of life, for he wanted not merely to eat his food or burn his wood, but to get the good of it twice by producing or securing himself what he wanted. . . . "I wish to suggest," he said, "that a man may be very industrious and yet not spend his time well. There is no more fatal blunderer than he who consumes the greater part of his life getting his living. All great enterprises are self-supporting. The poet, for instance, must sustain his body by his poetry, as a steam planing mill feeds its boilers with the shavings it makes. You must get your living by loving. But as it is said of merchants that ninety-seven in a hundred fail, so the life of men generally, tried by this standard, is a failure, and bankruptcy may be surely prophesied."

Thoreau provides us with both diagnosis and cure. What revolution would apply both to our condition? Only the private revolution modeled by Thoreau. Has anyone else taken this path? At the moment we think only of Scott Nearing, another man who lived according to the pattern laid up in heaven. No doubt there are some others, but they, like Thoreau, attract little attention from their contemporaries. The truth, it seems, can only be lived, not told. Why, we must ask in conclusion, are there so few humans of this manifestly right persuasion?

REVIEW
THE ULSTER "PLANTATION"

A BOOK we requested for review for an obvious reason is *Northern Ireland—The Background to the Conflict* (Syracuse University Press, 1983, $32.00). The editor is John Darby, with articles by nine contributors. We are somewhat in the dark on the situation in Northern Ireland after reading this book, but through no fault of its writers. The complexity of the history of Ireland in relation to the English is such that one would have to study it for months and live in Belfast (the capital of Northern Ireland) or thereabouts for an equal time to begin to write about it with understanding. Yet it can surely be said that from a historical point of view, the English are more responsible than the Irish. They invaded Ireland, took the land of the people, treated the Irish as a lowly inferior breed, and were consistently arrogant in doing all they did, from, say, the sixteenth century almost until the present. (There was plenty of history before that, but one has to start somewhere.)

One of the rebellions of the Irish against English rule took place in Elizabeth's time, and there was more trouble under her successor, James I, who was able to drive the Irish nobles and land-owners of Ulster from their country. This marked the beginning of what in Irish history is called the Plantation. On the ground that better cultivation of the land would result, estates were granted to English settlers. The natives were allowed little land, being turned out, and Englishmen were "planted" in Ulster, now made up of six counties—Antrim, Tyrone, Down, Armagh, Fermanagh, and Cavan. Those given estates could not sell them to an Irishman. According to the *Britannica:* "As actually carried out the plantation dealt with 511,465 acres. Two fifths of this was assigned to British colonists, being divided rather equally between Englishmen and Scotchmen. Rather more than a fifth went to the [English] Church and about the same amount to the servitors and the natives." The *Britannica* article concludes:

> The expulsion of the Irish from the land in which by law and custom they had a certain proprietary and hereditary right, although not carried out on the scale originally contemplated, naturally aroused great indignation among them. Attacks on the settlers were followed by reprisals, and the plantation may fairly be regarded as one of the causes which led to the terrible massacre [of Protestants] in Ulster in 1641.

Queen Elizabeth had sent the impulsive second Earl of Essex (whom she later beheaded) to put down a rebellion in Ulster, but the Irish united against him. He failed and "it took nine years and a blockade of the province to bring the Ulster chiefs to their knees." In his introduction to *Northern Ireland,* John Darby says:

> It was this very intransigence that accounted for the comprehensive nature of the Plantation of Ulster in 1609. There had been earlier attempts at colonising parts of Ireland during the sixteenth century, but they had usually consisted of little more than the confiscation of land and the grafting on of a new aristocracy. This also happened in Ulster. The leaders of the Ulster families were forced to flee to Europe and their lands were confiscated. By 1703, less than a century later only 14 per cent of the land in Ireland remained in the hands of the Catholic Irish, and in Ulster the figure was 5 per cent. But these figures are not a real measure of the changes introduced within the Plantation of Ulster. What made it unique in Irish plantations was the comprehensive attempt made to attract, not only British gentry, but colonists of all classes, and the fact that the colonists were Protestant and represented a culture alien to Ulster. This policy of comprehensive colonisation was a result of the advice of the Solicitor General to James I, and was an attempt to replace one entire community with another. The Catholic Irish remained, of course, but in conditions which emphasized their suppression. They were relegated to a state below servility, because the Planters were not allowed to employ the native Irish as servants in the new towns which they built. The towns themselves were unashamedly fortresses against the armed resentment of the Irish. Outside the town they were banished from the land they had owned and worked, and were confined to the boggy and mountainous regions. The reality differed from the intention, however. There were simply not enough settlers to

achieve comprehensive control and Irish servants were quietly admitted to the towns.

The sum of the Plantation then was the introduction of a foreign community, which spoke differently, worshipped apart, and represented an alien culture and way of life. It had close commercial, cultural and political ties with Britain. The more efficient methods of the new farmers, and the greater availability of capital which allowed the start of cottage industries, served to create further economic differences between Ulster and the rest of Ireland, and between Catholic and Protestants within Ulster. The deep resentment of the native Irish towards the planters, and the distrustful siege mentality of the planters towards the Irish, is the root of the Ulster problem.

The British are far more civilized today; they seem to feel some guilt and would no doubt like to settle the Ulster problem to the satisfaction of all, but what can they do? Tell people whose families have lived in Ireland three hundred years to come back home—to a country in dire economic trouble with serious unemployment? You might as well tell the people of California to retire to the great deserts of the Southwest, giving their land back to the Mexicans, who were there first, or to the Indians who were there before that.

In telling why the book he edited was put together, John Darby says something of importance to the general reader—and writer—that for people who do not live in Ireland, and have no knowledge of Northern Ireland' "the main interest in the conflict is the apparent starkness and intransigence of its divisions." He speaks then of "the understandings and accommodations which add subtlety to the relationship between Catholics and Protestants in Northern Ireland." Part of his book is devoted to an account of these efforts at reconciliation.

Some other dates have importance. In 1921 the Irish island was partitioned, six counties in the north becoming a separate state with intimate ties with England, the rest becoming the Irish Republic. Continued trouble led to sending the British army to Ulster in 1969, and direct rule by the British government began in 1974. These events, Darby says, "and the coincidence of an economic depression and a terrorist campaign aimed at the collapse of the province's economic structure, inevitably altered some of the issues in the dispute." He adds: "Most of all, it seems likely that more than 2,000 deaths, including a number directly resulting from violence between Catholics and Protestants, could not but have affected relationships between the two communities." By 1970, Darby says, the Provisional Irish Republican Army (IRA) was formed, and "the stage set for the violence of the 1970S." Meanwhile British troops had returned to Irish soil, renewing terrible memories among the Irish. One contributor, Paddy Hillyard, says:

As the conflict between the army and the IRA intensified the army resorted to a variety of techniques in order to attempt to defeat the IRA. There is considerable evidence to suggest that the army used agents provocateurs, a variety of undercover techniques and assassination squads. . . . In 1974, the powers of arrest and detention were extended still further under the Prevention of Terrorism Act. . . . Detainees were treated like "prisoners of war" and the politics of those convicted in the courts was recognized in the granting of "special status category."

An enormous literature has accumulated since the start of "the Troubles" in 1969. Another contributor notes that a bibliography issued in 1980 listed "no less than 780 academic works, not all of enduring quality, dealing with Northern Ireland politics."

Mr. Darby's book is limited to the struggle within Northern Ireland. The papers mostly give circumstantial background—on economic conditions, on population distribution, on law and order, and religious differences, and on education. No attempt is made to offer solutions, save for quotation by the editor from Arthur Koestler's prescription:

What we need is an active fraternity of pessimists. They will not aim at immediate radical solutions, because they know that these cannot be achieved in the hollow of the historical wave; they will not brandish the surgeon's knife at the social body, because they know that their own instruments

> are polluted. They will watch with open eyes and without sectarian blinkers for the first sign of a new horizontal movement; when it comes they will assist its birth, but if it does not come in their lifetime, they will not despair. And meantime their chief aim wil be to create oases in the interregnum desert.

Agreeing wholeheartedly with Koestler—as who could not?—we end our review on this note, wishing there were some development of these ideas in the book. But that, the editor states or implies, was not its purpose. He wanted to enlarge the picture and enumerate the elements and factors in the trouble in Northern Ireland. The book does that.

Yet something might be added here. If someone asks, well, what could the Irish do?—the English Irish and the Irish Irish—we should be tempted to say: They could go back to the Irish Renaissance and read the best it contains, mainly George Russell and W. B. Yeats, and try to get the Irish imagination going once again. The situation certainly calls for imagination. William Irwin Thompson's doctoral thesis, *The Imagination of an Insurrection,* might provide background, but most important would be to read material like A. E.'s *The National Being,* and maybe some of his work in the *Irish Homestead* which he edited.

Fifteen years ago MANAS printed in Frontiers (March 26, 1969) some passages from "The Poetic State" by George Buchanan, an Irishman. Conceivably, the Irish might be more susceptible to poetic politics than other national groups—they have had such fine poets. Buchanan said:

> Politically, how does poetry "work"? It points to evanescence, to the transience of things, sometimes with tears, often with pleasure, and helps to make them fugitive, and so edges old systems toward partial collapse. . . . Is there a tradition of poetry as a subversive force? . . . Shelley said that the poet was "unacknowledged legislator." The poet's legislation never came before Parliament and was never passed. This lack of acknowledgement may be coming to an end.

COMMENTARY
WHO IS EDUCATED?

WHY, it may be asked, does the poet's legislation never come before parliament (see page 8)? Because what the poet wants or asks of his fellows can never be enforced. A reading of Simone Weil's *The Need for Roots* is sufficient evidence of this.

History shows that the very worst of attempts of rule by man-made law are always designed to *make* men be conscientious, considerate, dutiful, or, as we say, "moral." It doesn't work. It can't work. The practice of the virtues cannot be compelled. They wouldn't be virtues if they could. It is difficult enough to compel social facsimiles of the virtues, such as not stealing, not killing, not lying (in court).

All that law *per se* can do is to convince people against their will, which does not change their minds at all, but makes them external conformists. So the poet's program, which is concerned with attitudes rather than acts, can be of no interest to legislators, who soon learn the folly of unenforceable laws.

All this is elementary, of course. Yet such questions have subtlety by reason of the fact that organized societies cannot exist without laws. People ask: If we can prohibit crime, why can't we prohibit insincerity? If we can make laws to slow down the consequences of selfishness, of hate, of egotism, why can't we simplify things with laws against the *sources* of such offenses? The answer is, because such laws corrupt the soul—because they lead men to figure out how they can break them without penalty, which is training in hypocrisy and pretense. This is a way of saying that only when the qualitative in human life becomes quantitative are we able to make laws regulating what people do. But where do you draw that line?

These are some of the reasons why both religion and poetry are among the most ambiguous terms in our language. Poets may be the interpreters of the world's harmonies; or they may work in an advertising agency. And prophets may reveal the future or they may be priests with a dominating system to perpetuate. They may be the best or the worst of men. Being educated, as William James said, is being able to tell a good man when you see him.

CHILDREN
. . . and Ourselves
ADVENTURES IN GEOMETRY

THE book, *Sacred Geometry* (Harper & Row, 1989), by Nigel Pennick, which starts out as a minor intellectual threat—all that geometrical math—develops into a text (and illustrations) so interesting that it sent us on a search for corresponding threads of history. First we went to an article, "The Mechanical Body Versus the Divine Body: The Rise of Modern Design Theory," by Alexander Tzonis and Liane Lefaivre, which appeared in the *Journal of Architectural Education* for September, 1975. These writers tell why, in the twentieth century, we know so little about "sacred geometry"; most of us don't know that it ever existed and was once all-pervasive in Europe as well as other parts of the world.

Who put a stop to architecture based on sacred Geometry? It was Jean Baptiste Colbert, minister of various departments in Louis XIV's Welfare State, who finally acquired "power in every department except that of war." Indeed, only Louis' wars, which drained the country of its wealth, were responsible for most of Colbert's failures. His successes were memorable. He stimulated and in some cases organized industry, reformed the judiciary, improved the police, and reorganized education and the arts. He was an Enlightenment man, convinced that Galileo had discovered the true secrets of nature. The first job Louis gave him was superintendent of buildings, and he moved from the tasks this involved to "reform" of architectural education. In 1671 he founded the Royal Academy of Architecture, in order to take the initiative away from the traditional sources of influence in building—the guilds, in which there was a minimum of division of labor—and place it in the hands of Enlightenment intellectuals. The guide in construction of parallels with the human body was to give way to mechanical principle. The writers in the *AE Journal* say:

> The trade of every guildsman rested on his acquisition of techniques as well as on the principles that linked architecture to the cosmological order of the world. This situation, and its resulting effects in education, was to undergo radical transformation with the inception of the Royal Academy.
>
> Turning its back on the archaic forms of training, the Academy offered a form of education which was theoretical. No training for manual work was included in its courses. The teaching contained lectures on abstract topics, principles of euclidean rationality and the empirical procedures advocated by Galilean mechanics. With the exclusion of manual practical skills, architectural education was to be limited to the learning of principles, plans, examples and application, dissociating the abstract field of pure design from that of labor. At the same time the laborer was exempted from any theoretical activities.

Eventually, this became the policy of all the bourgeois societies in Europe. Tradition was ignored, neglected, abandoned, with academic courses taking its place. What was lost? The once universal conviction that—

> The building *is* the human body: to accept such a concept is to commit oneself to the overall framework of archaic methodology, i.e., sacred harmony as an ultimate warrant, a quasi-deductive logic of inference, a classificatory foundation for the justification of design decisions and authority backings to validate them, and a concentration of the repertory of design decisions around proportion, size, and shape.

Appropriate to Galilean thinking, the house became a "machine." As early as 1787, an observer said: "A hospital room is truly a machine for treating patients." This, had he survived to that time, would have pleased Colbert immensely.

What we didn't realize until reading Pennick's *Sacred Geometry* was the enormous background of tradition and practice which lay behind the idea that the building is the human body—and, we should add, in some sense an image of the cosmos. The author says in his introduction:

> The harmony inherent in geometry was early recognized as the most cogent expression of a divine plan which underlies the world, a metaphysical pattern which determines the physical. This inner reality, transcendent of outer form, has remained throughout history the basis of sacred structures. Hence, it is just as valid today to construct a modern building according to the principles of sacred geometry as it was in the past in such styles as

Egyptian, Classical, Romanesque, Islamic, Gothic, Renaissance or *Art Nouveau.* Proportion and harmony naturally follow the exercise of sacred geometry, which looks right because it *is* right, being linked metaphysically with the esoteric structure of matter.

Sacred geometry is inextricably linked with various mystical tenets. Perhaps the most important of these is that attributed to the alchemists' founder Hermes Trismegistus, the Thrice Great Hermes. This maxim is the fundamental "As above, so below," or "That which in the lesser world (the microcosm) reflects that of the greater world or universe (the macrocosm)." . . .

Thus, sacred geometry treats not only of the proportions of the geometrical figures obtained in the classical manner by straight-edge and compass, but of the harmonic relations of the parts of the human being with one another; the structure of plants and animals; the forms of crystals and natural objects, all of which are manifestations of the universal continuum.

Pennick's book has chapters on ancient British geometry, Egyptian sacred geometry, and Mesopotamian and Hehrew sacred geometry. There is an informing section on Marcus Vitruvius Pollo, the first-century Roman architect and engineer who is believed to have written the first theoretical and technical treatise on architecture in the Western world. All the great architects of the Italian renaissance, beginning with Michelangelo, were ardent students of Vitruvius and followed the principles he expounded in their work. The architectural forms so designed honored the various gods of Greece and Rome. Mr. Pennick has this passage:

Economy, the last Vitruvian tenet, is self-explanatory. All of his maxims echo the down-to-earth functionalism of the ancient world, allowing for all conditions before deciding upon the form of a building whilst under the overall control of sacred geometry. Thus a synthesis of natural and artificial, earthly and heavenly, was arrived at, the balance which the modern ecological movement is striving so hard to regain. Vitruvius, steeped in the ancient geomantic harmony between man and the world, saw the building's design in terms of the body of a man. The well-known designs which show a man's body superimposed on geometry are known to this day as Vitruvian Man. However, not all Vitruvian architecture is related to the proportions of a man's body. This is reserved for temples. The structure of the theatre and the city, constructions with materially different functions, are instead related to the conceptual form of the world and are radial rather than linear.

How can these ideas be related to working with small children? An ideal beginning might be made with a fine children's book, published years ago—Anthony Ravielli's *An Adventure in Geometry*—in which the author shows that all the basic geometrical forms are found in nature. "Actually," he says, "we have been exposed to geometry since the day we were born." This becomes evident from his text and excellent illustrations. "Whether we realize it or not, much of the beauty we admire in the world around us is a result of nature's geometric skill. Every living thing—a tree, a flower, or an insect—is a lesson in geometry at its exquisite best." From Ravielli one might turn, for work with older children, to Herbert Read's *The Redemption of the Robot,* in which the writer points out that the Platonic instruction in harmony begins with the geometrical forms to which young and old intuitively respond. The harmony in nature becomes a model for harmony in human life. As Read puts it:

The harmony of the world is a complex idea: it means both musical harmony, in the sense of a beautiful concord between different sounds, and harmonious mathematical structure on rigid geometrical rules. The subsequent influences of the conception of harmony on all aspects of Greek life was immeasurably great. It affected not only sculpture and architecture, but poetry and rhetoric, religion and morality; all Greece came to realize that whatever man made or did was governed by a severe rule, which like the rule of justice could not be transgressed with impunity—the rule of fitness or propriety. Unless we trace the boundless working of this law in all spheres of Greek thought throughout classical and post-classical times, we cannot realize the powerful educative influences of the discovery of harmony.

FRONTIERS

A Million Trees Planted in India

A ROUND-UP story on the Indian Chipko movement—*Chipko Andolan,* meaning "to hug trees"—in *Science for Villages* for last August-September says:

> The Chipko movement was born one morning in March 1973 in the remote hill town of Gopeshwar in Chamoli District. On that fateful day representatives from a sporting goods factory situated in Allahabad reached Gopeshwar to cut 10 ash trees near the village Mandal. The villagers courteously told them not to do so, but when the contractors persisted they hit upon the idea of hugging the earmarked trees. The next day the sporting goods manufacturers had to return empty-handed.
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> Some weeks later the same contractor surfaced at Rampur Phata, another village some 80 km away from Gopeshwar, with a fresh allotment from the forest department. As soon as the villagers of Gopeshwar learned of this, they marched to Rampur Phata with drums and songs, gathering more people on the way. A confrontation ensued and the agitators hugged the earmarked trees to foil the manufacturers once again.

The writer, Anil Agarwal, notes that the Chipko movement has been widely reported in the international press and is "probably the world's most well-known grassroots ecodevelopment movement." It has the support of environmentalists and Gandhians and has been praised by Indian prime ministers, but the state government of Uttar Pradesh has not altered its policy in cutting down trees of vital importance to the hill people who rely on forest resources. The *Science for Villages* writer relates:

> The genesis of the Chipko movement has both an ecological and an economic background. The Alkananda valley in which the movement originated was the scene of an unprecedented flood in 1970. The tragic aftermath of this flood left a deep impression on the hill-folk and there soon followed an appreciation of the vital ecological role that forests play in their lives.
>
> The villagers here have also seen and resented the manner in which successive governments—beginning with the British—have taken away their forest wealth and turned it into a resource bank for faraway urban markets. Even for minor forest produce and articles of daily necessity like firewood the local people have been forced to become thieves in their own homeland. Slowly, the entire ecology of the region has changed. The local people prefer the broad-leaved oak. But with the increasing demands of the industrial culture, oak forests have been destroyed and extensively replaced by the chir pine. Today, when local villagers want to get oak wood to make ploughs, they are allotted pine trees, whose wood is useless for this purpose.

Local producers are discriminated against by the state policy of allotments, which favors "big business." When the group based in Gopeshwar which had organized and carried on the Chipko movement decided to set up a small plant to make use of pine resin, these local proprietors were unable to obtain a supply of resin at the low price allowed to larger factories, and appeal to officials in Lucknow brought no change. The writer continues:

> The Chipko movement reached its climax in 1974 when the women of the village, Reni, some 65 km from Joshimath, got involved in a dramatic way. One day when their men were away in Joshimath protesting against the auction of a forest neighboring Reni, the contractor arrived at the village to begin felling, taking this as an opportune moment. Undaunted by the number of men or their axes, the women of Reni, led by Gaura Devi, an illiterate woman of so, barred the path to the forest which went through the village. As the women stood there, they sang: "This forest is our mothers' home, we will protect it with all our might."

The writer comments:

> The non-violent, action-oriented Chipko movement has greatly helped to unite the people and focus attention on the mismanagement of forest resources. Its Gandhian character has brought it considerable sympathy. The expert committee set up by the State Government to enquire into whether the Reni forest should be felled found that the Reni women were more right from a scientific point of view than the forest department. This gave the movement considerable respectability. The committee concluded that because of the high sensitivity of the watersheds deep in the Himalayas, all felling should be banned to allow regeneration. These developments have not made the forest

department change its policy, but at least in the Chamoli district it is no longer in a position to implement its policy of selling the forest to private contractors.

At present the movement has two leaders—one, Chandi Prasad Bhatt, a man of Gopeshwar, who organized the Dasohli Gram Swarajya Mandal for local action; the other, Sundarlal Bhuguna, a journalist who spreads the word of the importance of conservation. Bhuguna took part in a march from Kashmir to Kohima to campaign against deforestation. Of the less known Gopeshwar man, the *Science for Villages* writer says:

> Bhatt has realized that if the local village communities have the right to control their surrounding resources, they must also undertake to conserve and develop those resources. He has organized the country's largest voluntary afforestation program through ecodevelopment camps sponsored by the Dasohli Gram SwaraJya Mandal. These camps bring together local villagers, students and social workers who have planted over a million trees. The survival rate of these Chipko plantations has been an astonishing 85-90 per cent.

It becomes evident that the real strength of the Chipko movement comes from the women of the region.

> Except for a few "organized" events, the Chipko movement essentially consists of a string of spontaneous confrontations in which none of the "leaders" were present. Women acting entirely on their own, rose up on the spur of the moment. While in Reni, the protest was against a timber contractor, in all other cases the protest was against their own cash-hungry men, who didn't care if the forest was destroyed and their women had to walk for many more miles to collect their daily load of fuel and fodder. . . .
>
> At its heart, thus, the Chipko movement is very much a feminist movement. It has not only brought forth in a dramatic manner a greatly increased understanding of the divergent interests of local communities and state bureaucracies in the management of local resources, but is now finding that the interests of men and women within the same community can differ greatly. As long as the leadership of the Chipko movement remains sensitive to this learning process, the movement is bound to grow in strength. The latest demand to emerge from the women of Chamoli is that it is they who should be elected to the Forest Panchayats [local decision-makers] and not their men.