VOLUME XLI, NO. 9
MARCH 2, 1988

STORY OF A MAN

A LONG time ago, probably in the 1920s, a young man named Rex Tremlett, eighteen years of age, left London and took ship for Africa, where he had been promised a job on a tobacco plantation in Nyasaland. In the last segment of his trip, on board a ship sailing the Zambezi river, he ran into bad luck. The ship kept going aground on sandbanks and the captain finally told his passengers to go ashore and walk fifteen miles to a town called Chindio, where a train would take them to Nyasaland. Well, they went ashore and that night Tremlett drank a bit too much and woke in the morning with a gash in his scalp—some one had hit him with a bottle—and no money at all. He found his way to the British Consulate and the Consul sent word to the youth's future employer, so that arrangements were made, and the next day he and other passengers—about fifty of them—started walking in the sand. Many of them were Angonis who spoke a dialect of Zulu. Tremlett relates:

> I spoke Zulu well. Before leaving for College in England, I had been brought up in the Transvaal. And now, in order to discourage the disconcerting remarks my companions were making about my lack of clothes [the heat had obliged him to discard his woollen suit], I asked them to sing. As they did so, our pace quickened to the rhythm of their music; and they dropped naturally into close harmony in a long minor chant that dealt with the prowess of Angoni folk in some distant war.

So much for introduction to the text we are quoting—*Road to Ophir*, which Tremlett wrote years later, published in London by Hutchinson in 1956. We are regularly drawn to using the material in this book by reason of the kind of man Tremlett turned out to be, and still is.

The job on the tobacco plantation didn't last. However, he had been to a school of mines in Cornwall and had no trouble qualifying as a mining engineer. So he prospected for gold. After a few years he returned to England for a visit, fell in love with the Cornwall Country, but then went back to Africa. He had answered an ad and got a job as a prospector in Northern Rhodesia. The company's headquarters was in a town called Broken Hill, where he reported to work and was sent out with an American geologist to do some exploration. But after he left he made an unpleasant discovery—for him. This is one of the reasons his life is worth reporting. In his book he said:

> During the few hours I spent in Broken Hill there had been little time to learn the history of my employers, for the name of the company gave nothing of its antecedents or affiliations. This was something I needed to know, for my recent trip to Europe had given me, for the first time, a sight of large-scale industrialism at work; and the more I saw of it the more I hated it.
>
> Bigness, it seemed to me, was the root evil. I knew the arguments in favor of huge enterprises: union creates strength in adversity; amalgamations cut overheads and unify direction; mass production needs capital beyond the reach of individuals. If that was true, then I believed that the cure was worse than the disease. When industry becomes so large that it dominates the private lives of its workpeople and the politics of nations, then it is evil; no matter how benign the intention of its master.

So, who *did* he work for?

> My curiosity about my employers' ancestry, however, was soon satisfied by my American partner. He knew all about them. . . . Our company, he told me, was another name for Rhodesia Broken Hill Development, which was another name for Rhokana Corporation which was another name for the Anglo-American Corporation of South Africa which was another name for Sir Ernest Oppenheimer. And Sir Ernest Oppenheimer, with his Kimberley diamond mines, his Johannesburg and Orange Free State gold and uranium plants, his Northern Rhodesian copper and cobalt network, his dynamite factories, and his finger in almost every other South African pie was, to

me, another name for just the type of industrial empire I most detested.

What should he do?

There was nothing personal in this. As a man Sir Ernest's report was good: as an employer he paid highly; and his mines were equipped with comprehensive social services like schools and hospitals, clubs and playing fields; but in Northern Rhodesia he was so powerful that if you did not work for the Anglo-American Corporation, or one of its many aliases, you were lucky if you worked at all. To me, who valued above all material things independence based upon, and sustained and controlled by, the personal ownership of small units of property, this was a very evil thing, however useful it might be to the general revenue.

As soon as I learned the parentage of my employers I determined to leave them at the first possible moment. I had, however, signed a twelve months' contract, and there seemed no legitimate way of breaking it. For three months I battled up and down mountains, fuming all the time; begrudging every hour spent in making Sir Ernest bigger, and ashamed of every pound of his pay I took. I could stand it no longer, and looked closely at the agreement I had signed. A light dawned. I read the clause again and again. There was no doubt about it. I could not sack them, but they, if I gave them cause, could sack me. I wrote the general manager a letter so studiously insulting that he had no option but to take action.

So he was sacked, and the manager hired a relay of runners to see that he got the news of being fired as soon as possible.

He took the train for Johannesburg to find another job. On the train he sat next to Owen Letcher, a journalist and editor, who, after some conversation asked Tremlett if he could write.

"No."

"Have you ever tried?"

"No."

"How do you know you can't write if you have never tried?"

I had no answer.

"That tale you have just told me about Lupa River. That's a good story. Why don't you write it: just as you told it?"

"I will, sometime."

"Sometime is no good. Do it now. There is all night."

Tremlett wrote it and Letcher published it in *Mining Magazine.* Tremlett was of course delighted, and through Letcher he got acquainted with Sir Robert Williams, whom he admired greatly, and Williams gave him the kind of job that he was looking for. Sir Robert told his secretary:

"This is Mr. Tremlett. He is joining us. Please see that he is given money to buy camp equipment for a year's prospecting trip into Tanganyika; his rail fare to Durban and boat trip to Dar-es-Salaam and reasonable expenses for the journey. "

A while earlier Tremlett had hired a Tanganyikan named Mopembe as a cook, who baked a loaf of delicious bread to prove he knew how. Tremlett was now prospecting in Uganda for Williams. One night he heard a man wailing and went to see what was the matter.

Mopembe was kneeling on the floor of the kitchen tent beating his palms on the ground, then raising his head and, with eyes streaming, crying to Allah.

"What is it?" I asked.

"My brother is dead. While I slept my sister's spirit came to tell me so. He has died of a terrible illness, and all Chiromba is weeping and afraid." . . .

By morning Mopembe was calm. He asked me to write to the district magistrate living near Chiromba, giving the name of his brother, and asking that a message be delivered to his family. It was that if his sisters wished him to return home, he would do so: otherwise he would remain with me until, a year hence, our contract ended and we would no doubt leave Uganda.

"Why cannot you give that message yourself to your sister's spirit," I asked, "instead of sending it by letter and word of mouth?"

"I am not *towezi,"* he replied. "I can only give and receive simple messages when there is great sadness or joy. The sister who comes to me in the night is *towezi.* To those who are also *towezi* she can speak on any subject, so long as it is in the quiet of the night.

"How do you become *towezi?"*

"You do not become it. You are born *towezi.* The midwives and witch doctors know a *towezi* baby the moment it is born. It has the look."

There is this on the quality of the natives.

> Once a month I sent a Ruanda to Mbara for mail, groceries, paraffin for the lamps, to post letters and to bring back cash for wages. Sometimes the man had to walk one hundred miles in each direction, which would take him ten days for the double journey.
>
> Always he returned within a few hours of schedule. Cash was needed in the smallest denominations; in two-, five-and ten-cent pieces (one hundred cents equal one shilling). Five pounds in cash, therefore, was a heavy weight to carry. The bank packed the money in a strong canvas sack.
>
> The boy was late in returning on one occasion and, when he arrived during darkness, he apologized. Fifty miles away the money sack had broken, scattering cents everywhere in thick grass. He had spent six hours in burning the grass all around, until he was satisfied that no money had been lost. He did not know how much the sack contained, but when I counted it there was not a cent missing. As a present I gave him something he coveted much more than money: a bar of Fairy soap.

We turn now to a passage that gives more of Tremlett's attitude toward the times:

> A snarling noise filled the sky one morning, and as the Ruandas came running from their huts I jumped from my tent to see what it could be. The noise permeated everywhere, and as the Ruandas panicked about the bush a large aeroplane thundered overhead.
>
> "What is it?" they asked in alarm.
>
> "We call it an aeroplane," I replied. "There are white men in it."
>
> "Oh, white men. Is that all?"
>
> Their interest subsided with the words. It was just another example of European magic, incomprehensible and therefore not very interesting.
>
> "Yes," explained Mopembe, who like to be in on everything. "In Entebbe they have a big nest on the ground, where they come every day. In Tanganyika during the war with the Germans, my father used to say, these birds flew about and dropped very bad eggs, which killed people."
>
> He spat in the direction of the by now departed plane. I, too, disliked the bird and feared it. Some day, I thought planes will land in pieces like this. From their cabins men will step, determined to organize everything. Clerks would creep about the land, gathering statistics; while, leading them, an economist gazed shrewdly at us, estimating our earning power in terms of man-hour productivity, so that when he had created local industries to help us raise our incomes, he could import goods to sell us.

Now Tremlett explains that he is not against what people call "progress," since there are plenty of things that need changing, but that the Africans were much happier people when, under old-fashioned colonial administrators, "progress" was simply the way in which these local English rulers controlled those who sought to establish trading centers and would deport them if they didn't behave well.

Tremlett felt that he personally had two responsibilities. Of these two, one was to Sir Robert Williams.

> The other was higher. The development of a country's natural resources was in itself good. If I found payable minerals here it would be to everyone's advantage to have them worked, especially to the local people. That is, if the minerals were not *too* payable.
>
> A few small mines, dotted about the veldt like the ones at Sabie, were good things. The vast network of gold-mines and uranium plants surrounding Johannesburg had created such appalling degradation in the black people, and such unbridled avarice in the white, that it was about as evil a thing as man had ever done.
>
> I determined that if I found a mineral deposit in Uganda which appeared capable of supporting one large mine, or several scattered small ones, I would report it. But if I found indications of another Witwatersrand or Northern Rhodesian copper belt, I would remain silent.

He went on with his explorations, finding material that some ancient miner had worked. He found traces of mercury, iron, specks of gold, antimony ore, silver, and lead. Someone, he decided, had caused all this gravel to be collected, examined it, "and had then stacked the residue in neat dumps in this isolated valley eight hundred miles from the sea, and in a part of Africa reputed to be inpenetrable until the end of the last century." Whoever did this work, he "had not only been a good miner, but had evidently had a

use for silver or lead, or both, and maybe for mercury, too." Where had this old miner come from?

A village headman brought him a black crystal two inches long and three quarters of an inch thick. It was a fine specimen of tinstone. The next day the headman showed him where he had found the tin, near a lovely lake. Of the site Tremlett said, "It was a likely looking place, and I decided to have a trench cut there, ten feet long and three feet deep." After a while one of his diggers brought him a rectangular piece of stone, obviously shaped by implements. It was nine inches long, three inches wide, and two inches thick. "Where did this come from?" Tremlett asked him. It had come from the trench the men had dug. He had the men widen the trench until it began to resemble a paved road. He had them dig other trenches, which also revealed deep down a road bed paved with stones. Reflecting, Tremlett said to himself:

> If the road continued in the direction indicated by the compass, it led, in one direction to the Belgian Congo and, in the other, to Abyssinia, the Sudan and Egypt. Supposing, I thought, just supposing that this was King Solomon's road to Ophir. Where did it lead? South-westwards lay the fabled gold-mine of Kilo Moto, the personal property of the King of the Belgians; strongly guarded, one heard, for fifty miles around. . . . The road, I estimated, looking at my maps, led exactly in that direction. . . .
>
> Did Ophir lie buried somewhere in that awful place? Was Kilo Moto just a golden outpost of other, more fabulous wealth?

Tremlett looked about. Some lovely black girls were bathing in the lake. "The setting was quite beautiful: the aura which surrounded it peaceful and happy."

> It was my duty, I supposed, to report the finding of the road to Sir Robert, although it was not strictly of mining interest. . . . I picked up the roadblock we had brought back to camp, and sat in silence, gazing at the lake; for when perplexed I have often found that if I can hold in my hands some object connected with the problem, and allow my mind to rise; above the earth, it seems; there comes into my head an answer so real that although it may defy logic and ignore previous notions, I am compelled to follow it. . . .
>
> I bent over the roadstone and thought about it. In a few seconds there swept over me a feeling of horror. On my fingers, up my arms and through my body I could feel the dried cold blood of a hundred thousand slaves. Then something inside me said: cover up the road. There was no other message than that.

"But, I can't just cover it up and say nothing," he protested to himself. "The archaeologists. . ."

> The answer came clear and strong: after the archaeologists there will be businessmen with bulldozers. With a million pounds they will come, subscribed by the avaricious, and with stinking diesel fumes tear the earth apart, uproot the shy Batoro and make a hell of the quiet land. Cover up the road.
>
> It was enough. Mopembe and Arruya were laughing and flirting with two girls not far away. I called to them.
>
> "Tomorrow we move on again. But first we will replace the earth from the three trenches we dug today. There must be no trace of what we found. I believe that it is evil. You must tell the Ruandas . . . that nothing is to be said about the road."
>
> I picked up the stone and walked to the lake's edge. Then I hurled it into the water and watched the ripples grow wider and wider, until they reached the reeds, shaking them a little.

That is the end of Rex Tremlett's book.

REVIEW
THE LESSONS OF AGRONOMY

WES JACKSON'S new book, *Altars of Unhewn Stone,* is made up of eighteen essays of various origins—some were talks, some articles, and some personal wonderings and musings. The book is published by North Point Press in San Francisco at $9.95 in paperback. The title is drawn from *Exodus* 20:25, the chapter containing the Ten Commandments, where Moses received instruction to build an altar of unhewn stone, since the use of a tool would pollute it.

The subject-matter of the first chapter, "The Information Implosion," is the contrast between what we have known about farming in the past and the scientific theories now put into practice. What we have known, or used to know, is given this characterization:

> Farm families who practiced the traditions associated with planting, tending, harvesting, and storing the produce of the agricultural landscape gathered information, much of it unconsciously, from the time they were infants: in the farm household, in the farm community, and in the barns and fields. They heard and told stories about relatives and community members who did something funny or were caught in some kind of tragedy. From these stories they learned the basic lessons of agronomy. But there was more. There was the information carried by a farmer who looked to the sky and then to the blowing trees or grasses and made a quick decision as to whether or not to make two more rounds before quitting to do chores. Much of that information has already disappeared and continues to disappear as farmers leave the land. It is the kind of information that has been hard won over the millennia, from the time agriculture began. It is valuable because much of it is tuned to the harvest of contemporary sunlight, the kind of information we need now and in the future on the land.

This is the sort of knowledge we "feel in our bones" by acquired "organic" intuition. It is what we know almost without thinking—what we practice from centuries of relationships with the earth and living things. Jackson then speaks of the other sort of knowledge that grows out of objective research:

> The culture believes that we are in the midst of an information explosion because of the status granted the knowledge accumulated through formal scientific methods. In contrast, knowledge accumulated through tradition, daily experience, and stories, mostly in an informal setting, has little status. We have taken this "folk knowledge" for granted, I suspect, for however *complex* it might be, it was not all that *complicated* to internalize. What we acquired second nature was woven in with the rural setting, the daily work, the local values and moral code. It is more the legacy of the dead than of the living. The more respected body of knowledge, learned through formal discovery or revelation of discovery in classrooms and textbooks, is of a different order. More discipline is involved in the discovery and in learning about the discovery. And though most of this information is not all that complex, it is more complicated for us to learn and internalize. Maybe this is the reason we assign greater value to such knowledge than to that which we picked up through tradition. There has been an explosion of formal knowledge, but what was necessary to make it accumulate so fast led to the destruction of much of the older, less formal knowledge.

To *internalize* a feeling, a realization, an intuition or a belief is to make it a part of our being, so that it is brought to the front when we have to make decisions. In a section of his book, *The Idea of Principle in Leibnitz,* Ortega remarks that "our 'beliefs' never appear to us as opinions, personal or collective or universal, but as 'reality itself'." He adds:

> They take form within us from behind our mental lucidity, and in order to find them we must search among "the things on which we count" and not among the "ideas we have." The form of consciousness which "beliefs" take in us is not a "taking into account," a noesis, but a simple and direct "counting on."
>
> To recognize a thing without counting on it—as happens to us with the centaur, with mathematical theorems, with the theory of relativity, with our own philosophy—that is an "idea." To count on a thing without thinking of it, without taking account of it—as happens to us with the solidity of the earth on which we are going to take the next step, or with the sun which is going to rise tomorrow—that is a "belief."

Ortega is not suggesting that beliefs are "truths," but simply that they are what we live by. We might add that converting ideas into beliefs is a long and difficult process by which, sometimes, our very

character is changed. Yet beliefs, if they have grown out of the experience of centuries or millennia, are likely to have a truth content, and this is what Jackson has been implying. He is also saying that out of respect for academic learning and specialist theory, the farmers of the country, most of them, have been persuaded to adopt "ideas" to take the place of ancestral beliefs. This transfer of allegiance has cost the farmers—and the rest of us—a great deal. Cultural egotism has played a part, especially in the hardly concealed contempt for rural society on the part of academics and others who have mainly an urban background. Jackson says:

> Part of that war against rural culture can be seen in the negative attitudes of our larger culture toward rural places and rural people. They run as deep as the worst forms of racism. A reviewer of the film *Country* said that Jessica Lange was too beautiful to be a farm woman. A reviewer of a recent book by Wendell Berry said that although Berry was a farmer, he was "an intelligent farmer." People who would be outraged if they heard a black called "nigger," or a woman a "little girl," make such statements about farmers and see nothing wrong with them.

Farmers, Jackson says, may have done stupid things and lost their farms, but "most of them were driven from the land by the industrialization of agriculture."

> Their experience exemplifies a law at work in the world, a law of human ecology: high energy destroys information. High energy (such as fossil fuel or nuclear energy) contributes to the arrogance of university professors who, though righteously appalled when species disappear, pay little attention to farmers driven from their lands or to the loss of cultural information this represents. This cultural information, which was hard won through sweat, tears, injuries, and death, will have to be won back in the same manner, and not just for the land, but for the urban culture too. Though cultural information can evolve faster than biological information, once lost it will be difficult to regain. Re-establishment will be gut-wrenching and the land will experience further abuse. The eyes-to-acres ratio will have been even more distorted, and I fear that the industrial model for agriculture may be regarded as even more necessary in the last years before the collapse.

In his chapter, "Building a Sustainable Society," Jackson says, "we mine water to grow corn in order to buy mined oil."

That is not sustainability. We grow that corn in part to fatten beef. One pound of beef requires eight thousand pounds of Ogalala aquifer water, accumulated over millennia. In Iowa, five to six bushels of soil by weight are eroded away for each bushel of corn produced. This erosion is the product of an economic system that either regards nature's storehouse as infinite or else simply discounts the future.

> It seems the promoters and apologists for this economic system have never heard of justice between generations. It is time that we seriously question our economic system, much of which is, after all, based on greed and envy. Now, lest you think I am unpatriotic, consider that there is a big difference between the economic system called capitalism and the political system called democracy. Because I believe in democracy, I have come to regard capitalism as un-American. Capitalism detracts from our democratic ideals partly because it destroys free enterprise. (By definition, capitalism depends on economic growth that must come from exploiting earth's resources and from forcing more and more people to provide services.) With finite resources, the accumulation of capital means that resources fall into the hands of fewer and fewer persons, and the freedom to be enterprising becomes restricted to the few. . . .
>
> We all need to spend less time watching television and more time looking at the geography of natural resources, asking questions about who owns them and how much of each there is and how fast they are being used. We have to become better students of the arms race, of federal spending, of what is happening to the poor here and elsewhere. We should find out for ourselves what is going on in Nicaragua and ask how we would feel if the Nicaraguans mined New York harbor because they did not like our foreign policies.
>
> We hope that our daily work at the Land Institute contributes to this end. We hope that our plant breeding and ecological experiments contribute. We believe that to develop perennial grain crops so that soil won't have to be disturbed every year and subjected to the forces of wind and rain is a patriotic act.

We have quoted from only two or three of the essays in this book. They are all good. We wish *Altars of Unhewn Stone* a wide circulation.

COMMENTARY
ON UNDERSTANDING OURSELVES

AT the end of this week's "Children" article David Koven says something that deserves particular attention. It is that after thirty years of carrying out in practice what the founders of the Walden School decided was the right way to establish an educational center, those who took part in this experiment were able to see its benefits. As Koven puts it:

> When I think of all the wonderful, lively, talented children who have attended Walden over the years, of how many of them have become creative, decent, powerful self-sufficient adults, I can't help but feel that our original insights about educating children have been affirmed, and I can't help but feel a great sense of gratification for having been part of the group that created Walden.

Such confirmations from experience seem rare indeed. Consider for example the self-sacrificing efforts which go into the work at the Land Institute described in this week's Review. Wes Jackson is only able to say, "We *hope* that our plant breeding and ecological experiments contribute." The majority of farmers are going in the other direction and it may be fifty years or so before the value of the experiments at the Land Institute becomes unmistakable. The same sort of thing might be pointed out in relation to the enormous dam-building projects in India, described in this week's Frontiers. The critics point out that the impact of these dams "on local peoples will be unparalleled in its inhumanity," yet the builders persist in their plans, despite the fact that impartial judges find the figures on which the plans are based are fraudulent.

Then, take the convictions which animated Rex Tremlett throughout his life. There seems little that a single mining engineer could do to alter the direction of the development in Africa, yet that discouraging prospect had no effect on his resolve. He as a man would simply have no part in the kind of development which he knew by personal observation "created such appalling degradation in the black people, and such unbridled avarice in the white, that it was about as evil a thing as man had ever done."

Why, one wonders, is there such an extreme difference between the basis of mass behavior and individual conviction? The sense of what is right is the guide for the few, while the calculations of self-interest dominate the decisions of the majority. Yet something in us all makes us keep track of the nobility and moral distinction of these few individuals, write books about them, and hold them up to our children as examples.

It seems obvious, when we look at human behavior in this way, that we have a dual nature. There is in all but the most selfish and depraved an inner longing to do what is right, or what we think is right, since we are far from infallible, while we are also subject to the mass pressure to follow self-interest and to shut out the intimations of the inward monitor. What does this tell us about ourselves? What is the composition of our being which brings about such behavior? If we, in seeking an answer to this question, decide to look for the best examples of what people do, if we decide that ideal human specimens instead of "average people" should have our attention, then we will research the high achievers as human beings. As A. H. Maslow put it in *The Farther Reaches of Human Nature:*

> If we want to know how fast a human being can run, then it is no use to average out the speed of a "good sample" of the population; it is far better to collect Olympic gold medal winners and see how well they can do. If we want to know the possibilities for spiritual growth, value growth, or moral development in human beings, then I maintain that we can learn most by studying our most moral, ethical, or saintly people.
>
> On the whole I think it fair to say that human history is a record of the ways in which human nature has been sold short. The highest possibilities of human nature have practically always been underrated. Even when "good specimens," the saints and sages and great leaders of history, have been available for study, the temptation too often has been to consider them not human but supernaturally endowed.

It was Maslow's view that we have reached the point in history "where we are now responsible for our own evolution." He added: "We have become self-evolvers. Evolution means selecting and therefore choosing and deciding, and this means valuing." This is the basis for understanding ourselves.

CHILDREN
. . . and Ourselves

WONDERFUL, LIVELY, CHILDREN

IN the second (August 1987) issue of *The Raven*, an anarchist quarterly issued by the Freedom Press (Angel Alley, 84b Whitechapel High St., London, U.K. EI 7QX), David Koven tells the story of the founding of the Walden School in Berkeley, Calif.—a school still going strong after thirty years, with ninety students. He prefaces his account by saying:

> There have been experimental schools started and encouraged by anarchists in almost every country. Louisa May Alcott received all her formal education in alternative school environments started by her father, Bronson Alcott. Francisco Ferrer, an anarchist educator, was executed by the Spanish authorities in 1909 for daring to challenge the Catholic Church's hegemony over education, when he established the first free school in Spain, the Modern School. Soon after a school started in New York City, that later moved to Stelton, N.J., was named the Francisco Ferrer School in honor of his memory. This anarchist school continued to function until the Second World War. In almost every anarchist colony or commune, one of the first things they would address themselves to was the creation of a school. For, in anarchist thinking, the idea of turning children over to the stultifying influence of a public school was repugnant.

In 1956, a group of anarchists and pacifists gathered in the Bay area of California to discuss founding an alternative school. They were four couples and a single woman (divorced) and they had children. Their ideas were in large measure drawn from the writings of Paul Goodman, Tony Gibson (an English anarchist), Homer Lane and A. S. Neill and their schools. They met regularly and talked a lot because they knew that they needed to know each other well and do careful planning. They chose the name Walden after Thoreau's Pond of a century before. In 1958, they made a brief start in Oakland, but in 1958 located a three-lot parcel of land that fitted their needs, and managed to raise a building on it. David Koven says:

> When we conceived of Walden, we thought of it not only as a means of educating children in a freer environment, but also as a center for education and action in the adult community—as reflected in our name. Walden became a center from which emanated a vital discussion and participation in the concerns of the "Walden Family," and the community in which they lived and functioned.
>
> Walden was instrumental in forcing the city of Berkeley to discard the practice of requiring a sworn loyalty oath if one wished to use city facilities. . . . When we refused to sign the loyalty oath and threatened to involve the American Civil Liberty Union in the case, the attorney for Berkeley advised the city to back down, and the required loyalty oath was deleted from city ordinances governing the use of city property. Ironically, we didn't use the park after all, but. found a more suitable space in another private school.

How did they actually get going?

> We were fortunate in having individuals who were able to loan money to purchase the property and build our classrooms, individuals to whom we are deeply grateful. But I think that the greatest financial contribution to Walden was that made by the founder teachers of Walden. For the first five years of the school's life, they worked without payment. Their contribution and that of their companions, through moral and financial support, were the most important factors enabling Walden to get through those first years of struggle. Of course, they all received the invaluable recompense of directly contributing to the education of their own children in an environment of their own design. But Walden expanded rapidly, and we soon had to reach beyond the founding group to find new teachers. We realized that any teacher who chose to work at Walden would need to make an enormous economic sacrifice. They could earn more than double what we could afford in the public school system. From the very beginning, we realized that our most important goal would be to try to make it possible for teachers who had opted to work with us to remain with us by paying them at least enough to sustain them.

After a year of the school's life, Denny Wilcher, one of the founders, wrote in the school paper (*The Pond*):

> It has seemed to me from the beginning of our discussions that the ideal situation would be one in which the entire family is involved on some

meaningful basis. By meaningful basis, I mean a condition where real needs can be satisfied. The possibility of this lies not only in the creation of a physical center but of that psychological climate which not only permits but actually encourages relationship and participation.

Of all institutions, the school demands some reasonable social cohesiveness in which to take root and grow. For a long time I have felt that what is taken for a common sense of values in the general culture behind the public school system is really a set of slogans derived primarily from the vocabulary of 19th-century liberalism. It has also seemed to me that many of the school practices have been adapted from another contribution of the 19th century, the factory system. This is exemplified in internal administrative organization, in architecture and in the drive toward production of the best possible standardized product at the lowest possible cost per unit. If this kind of situation exists, the school becomes not a general center of interest for a participating family but a sort of internally driven technological process which uses raw material in the form of children.

David Koven tells how the school works.

In the year before the opening of Walden, we worked out a basic structure and style that still influences the way Walden functions. We borrowed from our anarchist pacifist philosophy and tried to establish a form that would prevent the creation of a bureaucracy. We conceived of an unregimented education environment—a free-flowing interchange between teachers, children, parents and foundation members. We avoided the common concepts of democracy, which too often enable small "political" groups to capture and dominate cooperative and collective endeavors. We had seen other schools organized as parent/teacher cooperatives almost destroyed by political infighting by parent/teacher coalitions, advancing their Marxist agenda. For them, political expediency and orthodoxy were obviously more important than their dedication to education.

Therefore the Walden founders decided that decisionmaking would occur only when we were able to reach consensus. We also decided, in order to prevent our group from becoming stodgy and self-satisfied, to invite new teachers to join in the decision-making as part of the Walden Foundation, after they had been with us for two years.

At first, in the early days, they limited the student body to fifteen children. They saw what happened in public school classes which go to thirty or more. "Order" rather than learning takes precedence. Koven goes on:

> Because so many of the Walden founding group were involved in or interested in "the arts," we were convinced that if we centered our curriculum on the artistic experience and sensibility, allowing children and teachers to freely explore the performing, musical and visual arts, we could arouse their passions, and in these passionate moments create an excitement that would inflame and inform the learning atmosphere at Walden. In addition, we also believed that a "core curriculum" centered on artistic experience and expression would encourage all the basic skills to develop smoothly. In addition to our emphasis on the artistic experience, we placed equal emphasis on enabling the children to develop familiarity with, and knowledge and love of, the natural world. In short, we conceived of and tried to create an exciting, "turned on," energy-filled school.

He tells about several of their dramatic and dance productions, and a musical version of Maeterlinck's *Bluebird* for which parents and teachers composed all the music and made up the orchestra. Speaking of this time, he says:

> When I talked to a number of Walden graduates recently about their memories, they unanimously agreed that the participation in the dance and music productions were the strongest memories they possessed, and that this participation had a profound effect on their future attitudes toward the arts.

Concluding, Koven says:

> When I think of Walden functioning for almost 30 years without a director or centralized authority, I'm filled with feelings of both awe and joy. . . . When I think of all the wonderful, lively, talented children who have attended Walden over the years, of how many of them have become creative, decent, powerful, self-sufficient adults, I can't help but feel that our original insights about educating children have been affirmed, and I can't help but feel a great sense of gratification for having been part of the group that created Walden.

FRONTIERS

The World's Largest Planned Tragedy

THE Narmada river, in India, rises in the Shadol district of Madhya Pradesh, winds through forests, fields and gorges of that state and Gujarat, and empties into the Arabian Sea 1,300 kilometers from its origin. According to an article in the March-June *Ecologist* by Claude Alvares and Ramesh Billorey, in April 1987 the Indian Government passed what many consider a death sentence on this river, considered sacred by the Indians. The Cabinet gave the states involved "permission to transform the Narmada and its valley through a series of more than 3,000 major and minor dams," an enormous enterprise that will not be completed until the next century.

The writers say:

> The principal element in the Narmada controversy was whether the project would create more wealth than it would destroy. The debate was important particularly since the dams would, in addition to causing irreversible environmental changes, also uproot over a million people, a large number of tribals, and submerge about 350,000 hectares of forest lands and 200,000 hectares of cultivated land. . . . Essential funding for the dams' construction is to come from the World Bank. . . . In the case of the Narmada Project both the environment and the poor are destined for an onslaught of a kind unparalleled in the history of projects of this kind. . . . All along the route, 41 tributaries add to its waters. Twenty million people inhabit the basin, including tribals like the Bhils, the Gonds and the Baigas.

Since three states are affected—the two named and Maharashtra—there were disputes and the Government established the Narmada Water Dispute Tribunal in 1969 to settle various issues. "Eventually, the number of projects (major, medium and minor) reached the astronomical figure of some 3200 dams, taking more than a hundred years to build." Most of these will never be built, and the opposition focuses mainly on two dam projects, the Sarder Sarovar and the Narmada Sagar. The writers ask:

> Are these projects justified? Are they viable? What are they designed to achieve? Is this merely another senseless round of "temple building"? Do the projects take account of India's disastrous experience with large dams, in particular their acknowledged devastating impact in their immediate environment and on the large vulnerable populations their reservoirs displace? The answers to these questions are clear: Both the Sardar Sarovar and the Narmada Sagar are ecological disasters in the making In addition, their impact on local peoples will be unparalleled in its inhumanity.

The dams are intended to produce electricity and to irrigate land. However—

> According to the Institute of Urban Affairs, New Delhi, the entire Narmada Valley Project will lead to the eventual displacement of over one million people. This, as even the World Bank admits, will be "the largest river basin population resettlement to date." The displaced population will face total economic, social and cultural disruption. A large proportion of this population belongs to tribal communities.
>
> Although these tribals have been traditionally cultivating forest lands for decades they do not have legal title to the land: hence they will not get any compensation. Equally traumatic will be the uprooting of the tribals from their forest and river habitats and their forced dispersal in far-flung, often already degraded, environments. Many of them will just not survive.

The Indian government and the World Bank, the writers say, "are guilty of violating international law, which gives tribal peoples, among whom the concept of individual land ownership is unknown or uncommon, community rights over land they have traditionally occupied." Engineers, who know how to build dams, "are ill-equipped to think about the condition of oustees or the environment." Some people, in areas where the dams are already or being built, were given land of poor quality or no land at all. Two research agencies recommended against requiring oustees to look for lands on the open market.

> For, while the assets held by the oustees were generally undervalued by government officials, the cost of land in adjacent villages where oustees were forced to migrate was generally inflated. As a result, compensation payments were too small to allow

> oustees to buy land of the same size and quality as that lost to submergence. . . . S. C. Varma, the Chairman of the Narmada Valley Development Agency (NVDA), also admits that "the possibilities of new resettlement villages or colonies are remote." Significantly, the World Bank itself concludes: "The odds are high that the majority of oustees will be worse off following removal." . . . A socio-economic survey of 12 villages within the Narmada Sagar submergence area indicated that landless families constitute 43 per cent of the population. . . . If landholders are not able to get equivalent land areas as compensation, the possibilities of providing lands to the landless oustees is even more remote.

A rule established by the Indian Planning Commission is that "the cost-benefit ratio of projects must always be 1:1.5; that is, for every rupee spent, there must be a return of Rs. 1.5." In the Narmada Valley Project, this rule has led to "data manipulation and fraud." The writers showed the Narmada calculations to an economist of the Gokhale Institute of Politics and Economics, who commented:

> "The figures are incredible. I would not have believed it, if I had not seen the documents myself. The concerned engineers seem to be illiterates, and what is more, they do not know that they do not know. Apart from duplication and exaggeration, there is simply no method in the calculation of the cost benefit ratio. I am surprised how the Planning Commission could have accepted the cooking up of such fraudulent figures."

What about alternatives? In this question the writers say that a memorandum by the administrators of the project declares that "*no effective alternatives to these projects are available."* This, the writers remark, is a "blatant lie," adding, "There are alternative schemes that will produce both power and irrigation potential without destroying the environment and uprooting large masses of vulnerable people.' They go on to detail such possibilities. One alternative is impressive:

> If the height of the Sardar Sarovar is reduced from 455 to 420 feet, 90 per cent of the local population would be saved from displacement and 80 per cent of the cultivable land would be outside the submergence area. In the case of the Narmada Sagar Dam, a reduction in its height from 860 to 814 feet would reduce the population to be displaced to 20,000. It would also save thousands of hectares of forest and agricultural land. . . .
>
> Environmental activism has already brought success in the cases of the Silent Valley Project in Kerala, Lalpur in Gujarat, and now the Koel Karo in Bihar. It can too with the Narmada, so integral to Indian tradition. Otherwise, we shall be not merely witnesses but active co-conspirators in what may justly be termed the world's largest, planned environmental and human tragedy.