

ROAD IN THE WILDERNESS

SOME fifty years ago, prospecting for Sir Robert Williams in Uganda, Africa, in the Ruinzori area, an English mining engineer, Rex Tremlett, ran into an experience which stretched his imagination, as it does all readers of his book, *The Road to Ophir*, published by Hutchinson in London in 1956. We have referred to this book several times in MANAS articles, first for its good reading, but also for other reasons, as in the present case, which will become apparent.

The author had some definite ideas about mining for precious metals. He wanted of course to find gold or copper, but not an enormous quantity of it. One day as he and the black men he had hired were working, a "snarling noise filled the sky." It was only a plane, but the natives of that region had never seen one. Tremlett explained briefly, saying there were white men in it. At once the diggers lost interest. "It was just another example of European magic, incomprehensible and therefore not very interesting." His cook, a sophisticated native, explained further, saying that in Tanganyika during the war with the Germans, his father said that "these birds flew about and dropped very bad eggs, which killed people." Tremlett disliked the birds too.

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.

He then put his philosophy into words:

I was not against progress as such, or because it changed things: many things needed change: but because much of it had come too quickly. Trade must inevitably follow the flag, but the results of this had been happier for African peoples when colonial administrators (stiff-shined and high-hatted though

they may have been) had the power to vet all those who sought to establish trading centers, and to deport them summarily if they misbehaved themselves.

To be of use, however, such ideas need to be practical and personally applied, and I had already decided that in my work in Uganda I had two loyalties. One was to Sir Robert. 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 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.

So much for our story-teller.

One day, returning from the exploration of a mountain, he was met by a deputation of six of his men who demanded to be paid off at once so that they could go home. Why? he asked. They said his best porter, Arruya, was dying and they would carry him home with them to die in his own place, not among strangers.

Arruya, it was explained, had been infested with a harrabene worm, and trying to extricate it from his leg, he had broken it. This, as all knew, meant death. Arruya lay on the ground, covered by a grass mat, and beneath the skin of his left thigh "there was a scarlet weal, about nine inches long, a quarter of an inch wide," raised above the surrounding flesh. It was the dead worm, oozing its poison. Arruya had known what to do—how

to remove it—but he had made the fatal mistake of breaking the worm and was now resigned to die. They called upon an old man who said he knew what to do. He treated the leg, drawing blood from the wound, but could not remove all the pus. "He has waited too long," he said. "He should see Mohé." "Let us then send for Mohé," said Tremlett. The old man said:

"One does not send for Mohé. One goes to her. She lives two hours march from here. She has wonderful knives to cut away poisoned flesh, and magic hands to cure all manner of ills."

So Tremlett organized the expedition to see Mohé at once. They made a stretcher that could carry the sick man comfortably and set out, although it was evident that Arruya had no will to live.

Arriving at Mohé's house, they found it a charming rectangular structure thatched with leaves of elephant grass woven in patterns, with a lawn and a garden of European vegetables, including lettuce and peas, protected from the mid-day sun by movable shelters. Behind the house was a model farm, growing maize and millet, orange, apricot, and paw-paw trees. Fat cattle were grazing nearby. They found Mohé to be a matronly black amazon about five feet nine inches dressed in a print and sandals. Tremlett addressed her in a local dialect but she replied in educated English. She had been to a university in Africa and after that was a nurse at King's College Hospital in London. Learning of their patient, she ordered hot water prepared. They placed Arruya on her verandah and she spoke to him in low tones. He regained consciousness and replied to her. She said to Tremlett: "Now we can deal with the harrabene worm. He will feel nothing." Immediately, with her lancet, she cut out the worm, washed the wound with herbs and then sewed it up, wrapping his thigh in banana leaf. She closed his eyelids with her fingers and he relaxed into sleep. She said he should stay the night on the porch and made arrangements for the others of the party.

Conversing with her son, Tremlett learned that she could locate water by feeling its presence, and knew whether or not people were lying to her. She had developed an almost wholly self-subsistent economy in the village.

Each year when the final harvest was known, reserves were put by, and surplus maize, millet and cattle hides were taken to Fort Portal or to Mbarara, and there traded for money, most of which was then converted into farm tools printed cotton cloth, mirrors, knives, combs and other small luxuries.

Tremlett, however, was interested in her healing powers, and said to her:

"It is said here, and for many miles around," I began, "that by touching people you can tell that they are ill, even before the disease manifests itself. And that apart from your powers of hypnotism, you can tell whether people are lying or not."

"I happen to have a very sensitive electrical system," she replied, "and I have trained myself to diagnose the electrical impulses emanating from others, so that when I approach them (or, in most cases, touch them) I can gauge both their bodily and mental health—for both are electrically manifested. If there is unhappiness or ill-health, there is an alien impulse among the normal ones. If, from the experience I have now gained, I can diagnose either an impending disease (which is already physically at work, although unseen) or find the cause of unhappiness, and suggest a remedy."

"You mean to say that you receive a kind of electric shock?"

"No, not a shock. Hardly even a tingling; except in violent cases, when I feel quite ill. It is an acute awareness which study has taught me to have a precise meaning. You see, each one of us (and each animal, too) is a complex electrical apparatus which constantly emits and receives vibrations: the receptive vibrations coming not only from other humans but from such things as the sun, the moon, thunder, cloud formations and so on.

"To most of us," she continued, "this reception is as subconscious as are the impulses we ourselves emit. We are merely aware of unexplainable feelings and instincts—that is, if we think about them at all. We like or dislike people without apparent reason. We have unaccountable urges to do, and not to do, things. The wavelengths on which we operate vary so much that, like a poor radio set, it is impossible for

most of us to receive and translate messages other than those broadcast within a limited range. That is why it is so difficult, if not impossible, for people living in one hemisphere to penetrate, completely, the minds of those reared and living in another. Your own impulses, for instance, are quite different from those of African people: not so earth-bound, nor distorted and muffled by fear and superstition. Your emissions, as a matter of fact, are exceptionally clear. I believe that if you practice you can develop much of the aptitude for reception that I have."

Tremlett laughed off the suggestion that he had any such powers, but other things in his book indicate something of a confirmation of what Mohé told him. They went on to speak of water-divining. She said she did not need a stick, but her fingers were the sensitive instrument, feeling the pull of the water beneath the earth. Finally, they got around to how she had helped Tremlett's bearer and he asked her what he could do in return. She said:

Arruya has told me that you carry a box of explosives. . . . Ten miles from here, on the far side of this hill, there is a small village. The water there comes from a swamp about half a mile away. It is brackish, unhealthy stuff, and when the rains come it is tainted with *magadi* soda. In the center of the village there is an outcrop of rock, beneath which I have felt a strong spring of water. We have no tools to break the rock deep enough, and so release the water. If you can do that you will more than repay anything we have done for Arruya. Yes, certainly he may stay here until he is fit to travel.

Tremlett relates:

We reached the village she had mentioned that afternoon; and found the outcrop of rock just as she had said. Fortunately it was fairly soft to drill, and three Ruandas at once volunteered to bore a hole. The long steel drill we carried was brought from its cover, and while two of the men held it in position, the third smote it with a sledge-hammer. Two hours later there was a hole in the rock three feet deep and an inch and a quarter wide. I pushed a cartridge of gelnite into it, with a length of bamboo; and followed it with another, to which a detonator and a length of fuse had been tied. The remainder of the hole was filled with damp clay, and tightly tamped.

About eighty people watched us: the whole population; and I warned them that as soon as I lit the

fuse they must take cover. I struck a match, and at once there was a rush to behind huts, trees and some boulders fringing the village. At the explosion a shower of stones arose, followed by a cloud of dust. When this cleared we returned to inspect our work.

A little spring of clear water welled between the broken stones.

This rather wonderful adventure which Tremlett had with Mohé—one of the reasons why we regularly reread his book—also has a moral for us. You will perhaps have noticed that, in giving an account of what she was able to do, this extraordinary woman said absolutely nothing about "spiritual" powers. What she said had to do with the subtle dynamics of the cosmos, its electrical fields and currents, perhaps of another sort than what we use to light our lights and run our motors. The method Mohé used sounds very much like what, in the early years of this century, was known as the Abrams method, worked out as the system that was called radionics and was used as a diagnostic tool and widely respected, especially in England, until a scathing expose was published in the twenties in the *Scientific American*, denouncing Dr. Abrams as a fraud. Yet his method is still used by unorthodox practitioners, and with great benefit, the patients say. It seems well to remember that in *Pearson's Magazine* for April, 1925, Sir James Barr, former president of the British Medical Association, spoke of Dr. Abrams as a man "who killed himself trying to teach others, or rather was persecuted to death by his professional brethren." Today, while the medical profession is hardly less intolerant, the general public is acquiring the habit of using the word "spiritual" as a term of almost magical significance, and with such abandon that the word has almost lost its meaning, if it ever had any in the West. Tremlett's book enables us to call attention to this, since he describes capacities that would now almost certainly be labelled "spiritual" by popular writers in America.

But what *is*, one may ask, the legitimate meaning of "spiritual"? The college dictionary is not much help, fifteen different meanings being

given. However, in philosophical language, spirit is taken to be the opposite of matter, while mind is regarded as the link between the two, bearing the imprint of spiritual impulse and shaping matter according to the will of spiritual intelligence. That seems a reasonable meaning, although it lies in the region of metaphysics, which our scientists have long since abandoned as having no value from the viewpoint of the five senses. If we attempt to recover a meaning for spirit and spiritual, we must return metaphysics to respectability, at least for the sake of the language we use. Spirit, then, as the positive aspect of transcendental reality, is a synonym of consciousness. It is subjective reality. When we say "I," we refer to a spiritual subject, ourselves, and we certainly know that we exist. We know also that we have bodies, or instruments of various sorts which, so far as we can see, are made of various states or conditions of matter, all apparently subject to change, and which by changing, alter our levels of awareness. A man reading the Sermon on the Mount, a sublime passage in Emerson, or a portion of a great Upanishad, is certainly in a different state from a man in a fit of passion, anger, or fear. Perhaps we could say that a spiritual human, man or woman, is a center of intelligence wholly in control of these states. If this is the case, it would be well to reserve the term for precise usage along such lines. One who is in control of his feelings is likely to see clearly, and this, it seems reasonable to say, would be a spiritual quality, although it would also seem well not to employ the word for quite a while, until its fuzzy and abusive use has lessened and a precise meaning is acquired.

One thing more might be added. Spirit is a word conveying meaning at a rare level of abstraction. It stands for essential being, apart from all its embodiments; it is, therefore, the universal aspect of beinghood behind all the particularizations of intelligence. It is, in short, the best of us and the best in us, yet unknown to us in its pure state. It is a term, then, to be reserved for usage of this sort, and so is its adjective, spiritual.

We might now return to the end of *The Road to Ophir*, which comes soon after the story of Mohé. Tremlett and his crew were working in a valley with a good stream, panning gold and other minerals and identifying them by miner's methods. After a while it seemed to him that the material he was examining there had been assembled long ago for just such a purpose, by ancient miners. Borrowing some planks from Mohé, he erected a frame like a four-poster bed which could be used to swing and enlarge the panning operation. This speeded up the classifying and they soon completed the survey of the valley, for his job was to identify the minerals, not to develop them, and to report. Then one of the workmen brought him a black crystal about two inches long and three quarters of an inch thick. It looked like a small paving stone. "Where did you find this?" he asked. The Ruanda took him to a trench, where more of such stones could be seen.

When we finally cleared away the overburden many more stones had been uncovered. They appeared to have been laid in staggered rows, like bricks, in a neat formation five feet six inches wide. We widened the trench further, uncovering more of the stone floor until it resembled a section of a paved road.

Who, Tremlett asked himself, could have built this road? What sort of traffic would have required this hard, permanent surface? In one direction, it led to the Belgian Congo, in the other toward Abyssinia and Egypt. Was it, indeed, King Solomon's road to Ophir? And what was his duty? Should he report the existence of the road to Sir Robert? Yet it was not now of strictly mining interest.

Some girls were bathing on the far side of the lake, each attended by a small handmaiden bearing a calabash. The water here was shaded by trees through which the fading sunlight filtered on to their shining black bodies. . . . The setting was quite beautiful: the aura which surrounded it peaceful and happy. . . .

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," I protested weakly within myself. "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.

He called to Mopembe and Arruya.

"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—and Twinklio, too, for he talks too much—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.

REVIEW

THE LIVING ASPECT OF HISTORY

IN MANAS for Sept. 3 there was a quotation from Paul Goodman (in "Children") which should be useful here, since it had to do with the early years of our Republic, and is therefore history of a sort, and we plan to undertake a brief study of history in this space. In one of his books, Goodman wrote:

During the first thirty years of the Republic only 5 to 10 per cent were enfranchised and as few as 2 per cent bothered to vote. But the conclusion to be drawn from this is not necessarily that society was undemocratic. On the contrary, apart from the big merchants, planters, clerics and lawyers, people were quite content to carry on their social affairs in a quasi-anarchy, with unofficial, decentralized and improvised political forms. It was in this atmosphere that important elements of our American character were developed.

Then, on the same subject, in another of his books, he said:

When the revolution of 1776-81 removed the top structure of British authority from the American colonies, this country was fundamentally organized as a network of highly structured face-to-face communities, each fairly autonomous; town-meetings, congregational parishes, gentry families and yeoman families. These had hierarchical structures; masters and apprentices, indentured servants, family slaves, professionals and their clients, pastors and parishes; but each person was in frequent contact with those who initiated and decided.

For the first twenty-five years of the republic, in important respects there was virtually a community anarchy with regard to the central and state governments.

For immigrants and for the poor who felt too disadvantaged in the existing structured communities, the frontier was an open area for independence.

This was an aspect of American life that hardly had attention from historians, since no great events were involved, but simply the natural uses of freedom in everyday life by men and women of a country that was itself mostly "frontier." Hannah Arendt, in her book

Revolution, remarked this neglect, saying that "since the state and federal governments, the proudest results of revolution, through sheer weight of their proper business were bound to overshadow in political importance the townships and their meeting halls—until what Emerson still considered to be 'the unit of the Republic' and 'the school of the people' in political matters had withered away—one might even come to the conclusion that there was less opportunity for the exercise of public freedom and the enjoyment of public happiness in the republic of the United States than there had existed in the colonies of British America." After the passage of a few years, the situation became more or less as described by Benjamin Rush, who said that while "all power is derived from the people, they possess it only on the days of their elections. After this it is the property of their rulers."

In consequence, our histories are devoted to accounts of the events which take place, not really about our lives, which may or may not be deeply affected. Yet there are other ways of thinking of history, as for example the approach of Laurens van der Post, richly illustrated in his book, *The Dark Eye in Africa* (Morrow, 1955). His subject is essentially the unrest in South Africa, and what he understands as the reason for it, which is the failure of the European peoples who settled there three hundred years ago to allow their mythic inspiration to grow from an Old Testament vision and to be transformed by the spirit of the New Testament. All great nations, van der Post is convinced, have a mythic inspiration, far from perfectly lived up to. The Germans have had their Faustian dream and have already been through some of its tragedy; the English have the stories of King Arthur and his knights, while the Afrikaners found their inspiration and comfort in the old Testament. As van der Post puts it:

They came out of Europe like the Israelites out of bondage in Egypt to search for their promised land. Unless you have lived the pattern with them as I have, you cannot know how deeply the Old Testament example was burned into them and how unflinchingly

the experience thrust on them by Africa seemed to confirm their own affinity with the Biblical story. Even the first book written in Afrikaans argued that the original garden of Eden was in the heart of Africa. To this day Africa is largely an Old Testament land which still needs temples and prophets and a David for Goliath far more than it needs parliaments, politicians and trade unions. . . . This particular myth of my countrymen presupposed just such a journey as the Great Trek through a great unknown wilderness to a land of promise. It was a necessary and inevitable phase in the development of their myth. But if today this Old Testament myth seems to be perilously receding, it is because it is still confined in its Old Testament context and has never been finally transcended into New Testament teaching and example. This brings me to a point I believe is vital. No living myth can be pinned to one particular phase of its inherent development or to one consciously selected and favored aspect of itself. It, too, is a moving finger that writes and, having written, moves on. . . . It has the power to accomplish the vision in full and the will to insist that life shall be lived in its entirety. . . . one time-honored myth is that in which man is chosen and called upon to perform a "perilous journey." It is this myth, of course, which is so utterly transcended and accomplished in the New Testament. This is also the myth which rules in the hearts of my countrymen. Only since it has not yet been transcended because the European in Africa at the moment will not carry it forward, and since by the laws of its own dynamic being it cannot stand still, inevitably it has begun to recede and an earlier pattern, a less conscious phase of it, begun to replace a more conscious one.

Now that the South Africans are under trial, van der Post will make no excuses for them. But they will see that they have been at least partly understood, and will not be still more hardened in their dogmatic position. Meanwhile, the judgment stands:

When these people first came to Africa three hundred years ago they were approaching the New Testament transformation of their myth. Yet the God that is worshipped today has declined in stature and become an exacting tribal god, a touchy racial spirit, the terrible and infinitely jealous Jehovah of my Afrikaner people; and when the gods decline nations wither; when they die civilizations die with them. . . . when you consider all that has happened in the human spirit since the angry days of the Old

Testament patriarchal unawareness, then you will realize how dangerously the "being" of my countrymen has receded in Africa, how wide is the gap between them and the time that contains their lives, and how obscure and unimagined are the ways in which real help can be given from the outside.

What, in 1955, when he made these talks, did van der Post think about the future? Asked this question, he replied:

Nevertheless, I myself do not feel entirely hopeless about it. First, I know the potential heroic capacity of my countrymen as you could not be expected to know it, and I still have faith in the power of the myth which brought my countrymen to Africa and compelled them to set out on their great journey into the interior. Even to this day the imaginations and spirit of my countrymen revolve round the Great Trek with an obstinacy and intensity which is not capable of easy rational explanation. Their imaginations are still obsessed with this passage in their history as the spirit is obsessed only by visions that have not yet reached their end, and I am certain that the seed of suspicion is already planted in their hearts that the great journey of their forefathers must have another meaning beyond the surface values of their recorded histories.

An aspect of this book that we have not mentioned is the writer's deep respect for the African people. Years ago, when he was organizing an expedition to go into the Kalahari Desert of Southern Africa, he was approached by two anthropologists who wanted to go along to do a study of the Bushman. He asked about their study and they said they were making head-measurements of primitive peoples all over the world. "What," he asked them, "about the inside of their heads? Are you not interested in what goes on inside them?" They were not, explaining that this was "a different branch of science." They were quite upset when he decided not to take them along. Knowing something of these "primitive people," he said—

. . . that it is not we who are filled with spirit or soul, but rather the dark and despised people about us. They have so much of it that it overflows into the trees, rocks, rivers, lakes, birds, snakes and animals that surround them. The bushman makes gods out of all the animals around him; the Hottentots kneel to an

insect, the praying mantis; the Bantu listens to the spirits of his ancestors in the noise of his cattle stirring in their kraals of thorn at night, made restive by the roar of the lion and the hyena's werewolf wailing; the Negro appeases and invokes the gods in endless fetishes and images of wood and clay. But one and all they are humble parts of life and at one with it, knowing that, in order to get through their tiny trembling day, they are in constant need of support from a power greater than themselves. . . . They are poorer in almost every way than we are and no more successful, perhaps. But in one great respect they are richer. Whatever happens to them, their lives are never lonely for lack of spirit nor do they find life wanting in meaning. To this day you have only to hear the Bushman, Bantu, Hottentot or Negro laugh to realize how true this is.

This seems a wonderful lesson on how, some day, we must begin to write history. Every nation is in some sense on trial. Each one has its ordeal, and few come off well in the end. Writers like van der Post instruct us in the meanings that history may really have for us, and above all he may help us to learn patience with one another, especially during the hours of trial. Is our own country now on trial, being tested in another way than South Africa?

COMMENTARY

NEWS FROM THE FAR EAST

ACCORDING to *Appen Features*, a news service we receive (issued at 37 Lorong Birch, Penang, West Malaysia), a plant for the extraction of tantalum, located on Phuket Island off southern Thailand, was set afire last June by the people who live there. At the time of the fire production had not yet begun but the inhabitants had learned of the toxic chemicals that were to be used to extract the tantalum from the tin slag available. The slag contains radioactive elements and hydrofluoric acid would be used to extract tantalum, for use in electronic components such as capacitors and in surgical implants.

The people feared that the highly toxic chemicals used to extract the tantalum might poison the population and environment, not to mention harming the island's thriving tourist industry. Besides the destruction of the tantalum factory, the island's luxury Merlin Hotel was also burnt, causing \$1.4 million worth of damage. The hotel's owners are believed to be major shareholders in Thailand Tantalum Industry Co., owners of the factory.

The destruction of the plant is said to have cost \$44 million.

Residents feared that the waste would be dumped around the refinery to be washed by rain into Phuket's water sources. The extremely corrosive hydrofluoric and toxic radon gas and thorium are used to extract tantalum from the tin slag. These substances can cause bones to become brittle, and cells in the blood and lungs to turn cancerous. And the people of Phuket would be subject to incessant radiation by the plant's dumped wastes.

The drastic move by Phuket's citizens need never have happened. The government of Thailand had plenty of warning that the people of Phuket meant business and did not want their land and livelihoods threatened by radioactive and toxic wastes. Initially some 70,000 gathered to protest against the plant.

A successful legal action was brought by the people of Bukit Merah in Malaysia against a firm engaged in processing monazite, which leaves a radioactive byproduct, thorium hydroxide. The

Malaysian High Court granted the people an interlocutory injunction against the factory, since the levels of some 87 times the permissible level of the poisons were detected at the dump site. The report concludes: "These few examples communicate the fact that citizens of Southeast Asia and other developing countries will not accept any potentially hazardous projects quietly."

CHILDREN ... and Ourselves

COOPERATION VERSUS COMPETITION

AN article in the September *Psychology Today* by Alfie Kohn, comparing competition and cooperation as motives in life, seems to bear out a theory we have long felt to be true, and is confirmed by the best commentators we have read. The theory is that competition is something like the market—a small market may prove a good thing, setting gross standards for products offered for sale. You discover, when you take something to market, what other people are able to make, and what you must do to offer similar things for sale. Lazy, careless people must change their habits if they are going to produce for such a market. This is an elementary lesson which must be learned and the market is the right place to learn it.

But a world market is something quite different. The world market is subject to so many forces far beyond the control of small producers used to selling in a small market that it becomes the theater of operations of big manipulators who have little to do with the quality of the products offered. They create demand through achieving monopolies or semi-monopolies, by advertising and sales promotion, by dictating to suppliers whom they manage to control by various means. They move toward putting an end to competition through their economic power. If labor costs too much in the United States, they move production facilities to other countries where it is cheap, and for a time gain large profits. But eventually buying power at home dries up from the loss of jobs and a slow decline in the economy results, such as the United States is now experiencing.

This does not happen to people who are satisfied with small markets limited to regions, as are the sources of the goods brought to market, which is simply a convenience, not a means of manipulating human appetites and desires. But the big operators are the last to learn this lesson,

since they have acquired the habit of manipulation instead of honest production. The basic lesson in business as in life generally, is cooperation.

This is the point of Alfie Kohn's article in *Psychology Today*. His aim, as he says, is to explode the worn-out belief that "Competition brings out the best in us." We have, he shows, been systematically indoctrinated into believing that "success" means victory over things, that to do well means beating someone. "Our society," he says, "so values competition that it seems almost blasphemous to doubt its supposed connection to achievement. The relationship is, to many people, self-evident." This belief becomes peculiarly destructive when applied in education, and prejudiced parents often insist on teaching systems which stress competition as the basic lesson to be taught. Kohn asks:

But what does the evidence show? Do we really perform better when we are trying to beat others than when we are working with them or alone? Many psychologists, instead of taking competition's reputed benefits for granted, have put them to the test. And with astonishing regularity, they have found that making one person's success depend upon another's failure—which is what competition involves by definition—simply does not make the grade.

Superior performance does not require competition, indeed, it usually seems to require its absence. Although this conclusion challenges some widely held assumptions, it has now been confirmed by scores of studies.

He quotes these studies one after another, all of them showing that the less competitive, the more cooperative people are, the better their performance. This is as true in business as in other fields. Two researchers found that in four studies they made, the findings "dramatically refute the contention that competitiveness is vital to a successful business career." Cooperation, it was shown, gets the results that are wanted, not competitiveness, which excites suspicion, dislike, and inability of people to work together. The following comment seems of particular interest:

Another arena in which we seem to be paying a heavy price for competition is journalism. The frantic

race for news sets reporters against one another in a battle for front-page space for the first segment of a television news show. This environment, beyond generating high levels of stress, may well lower the quality of journalism. For example, when Shiite Moslems hijacked a jet in 1985, Stephen Klaidman, a senior research fellow at Georgetown University's Kennedy Institute of Ethics, attributed the "distorted and excessive coverage of terrorist incidents" to the "highly competitive nature of network television." A second critic, former head of CBS News Fred Friendly, reached the same conclusion independently. As reported in the *Boston Globe* Friendly observed that "too many (news) decisions are made on the basis of beating the competition rather than deciding how to act responsibly."

A thorough study of science-news reporting, which included interviews with 27 leading journalists who specialized in the field, led Jay Winsten, director of the Harvard Center for Health Communication, to report that having to compete for space leads reporters to "hype" their stories—exaggerating their importance—a tendency exacerbated by competition for publicity among scientists, hospitals and universities. The result of turning journalism into a competitive race is not excellence but less accurate information.

Most conclusive, perhaps, has been the research in the field of education, where two teachers of education, having reviewed studies from 1924 to 1981—122 in all—reported that 65 of these studies showed that cooperation promoted higher achievement than competition, while 8 showed the reverse, and 36 showed no significant difference. Kohn observes:

Children simply do not learn better when education is transformed into a competitive struggle. To be sure, a teacher may want to turn a lesson into a competitive game to attract and hold students' attention. But the real appeal of this strategy is that it makes teaching easier, not more effective it circumvents rather than solves pedagogical problems.

One team of researchers found that when everyone in a group working cooperatively had mastered the solutions of assignments set, "they go look for another group to help until everyone in the class understands how to work the problems." Kohn remarks that "Since groups are even better at problem-solving than their best

members are individually, it is not surprising that students learn better when they cooperate." He goes on:

But when students help one another, do less able students benefit at the expense of those with higher ability? Apparently not. Knowledge, happily, is not a zero-sum game. Anyone who has taught or tutored knows that the cliché about teachers learning as much as their pupils is quite true; teaching reinforces one's own knowledge and often promotes more sophisticated understanding of the material. . . .

Cooperation means more than putting people into groups. Rather, it usually means group participation in a project in which the outcome results from common effort, the goal is shared and each person's success is linked with every other's. Practically, this means that ideas and materials are also shared, labor is sometimes divided and everyone in the group is rewarded for successful completion of the task.

Alfie Kohn found that, according to sports psychologists, among children of nine and ten, two thirds of the boys and all the girls preferred games requiring cooperation to those which turn "play time into a kind of battle." In his summary, Kohn says:

My review of the evidence has convinced me that there are two other important reasons for competition's failure. First, success often depends on sharing resources efficiently and this is nearly impossible when people have to work against one another. Cooperation takes advantage of all the skills represented in a group as well as the mysterious process by which that group becomes more than the sum of its parts. By contrast, competition makes people suspicious and hostile toward one another and actively discourages this process.

Kohn ends his article by quoting the late John Holt:

We destroy the . . . love of learning in children, which is so strong when they are small, by encouraging and compelling them to work for petty and contemptible rewards—gold stars, or papers marked 100 and tacked to the wall, or A's on report cards, or honor rolls, or dean's lists or Phi Beta Kappa keys—in short, for the ignoble satisfaction of feeling that they are better than someone else.

FRONTIERS

The Decline in Malaysia

THE Malay Archipelago is the largest group of islands in the world, lying southeast of Asia and north and northwest of Australia. It includes the Sunda Islands, the Moluccas, New Guinea and the Philippine Islands. The equator passes through the middle of the archipelago, cutting through Sumatra, Borneo, Celebes and Halmahera, four of the most important islands. Java, Bali, Sumatra and Borneo, and the lesser islands between them and the Asiatic mainland all rest on a great submerged bank no deeper anywhere than 100 fathoms below sea level. Most of the islands belong to the great equatorial forest belt.

Today, according to the news service, Sahabat Alam Malaysia (SAM), with headquarters in Penang, in Malaysia, all areas of this region are showing environmental degradation. SAM, an agency of Friends of the Earth in Malaysia, reports:

One particular area for concern is the rapid and intensive exploitation of Malaysia's natural resources especially with regard to fertile agricultural land, extensive tropical forests and wildlife, various minerals and bountiful seas and rivers. Malaysia's rich natural resources have diminished very rapidly and the situation will reach a critical stage if it is not controlled. The state of Malaysia's forests can be gauged by the fact that only less than 25% of peninsular Malaysia is covered by primary forest. About 100 years ago, forest stretched from the Thai border to the tip of the Peninsula. The forests have been cleared mainly for timber, followed by agriculture, mining, urbanization and infrastructure. In 1981 trees were being cut down at a rate of .25 hectares per minute. While the trees reaped in billions of dollars, the forest system was destroyed. Valuable genetic resources and wildlife gave way to timber extraction. Extensive soil erosion followed clearance of the forest cover, leading to river siltation and floods downstream.

There was replacement of trees by the government in only small areas, and with species that were commercial and fast-growing, not what a healthy forest required.

Fish production is also diminishing:

Fish may soon be a luxury which only the rich can afford. The drastic drops in fish production which began in the 1970s have not shown any significant improvement. Output in 1980-85 registered a decrease of 6.3%, from 744,000 tonnes to 697,000 tonnes.

According to the Fifth Malaysia Plan, the reasons are depleting fisheries resources, especially in inshore waters, and the failure of aquaculture projects. The main problems faced by the 90,000 small fishermen in peninsular Malaysia are trawler invasions and pollution. Thus this group of people remains one of the poorest communities in the country.

While Malaysians have to pay higher prices for fish, and poor fishermen no longer enjoy as much fish as before, the bulk of our national output goes to feed people in the developed countries. More than a third of our prawns and fish are sold to Japan, Europe and the United States.

The stress in Malaysia, as in other third-world countries, is on export-oriented crops rather than food to feed the local population. Today Malaysia is only 76.5% self-sufficient.

Where meat consumption is concerned, Peninsular Malaysia is 55%, while Sabah and Sarawak are only meeting 23% of their domestic requirements. Vegetable production in the Peninsula has dropped drastically from 202,100 tonnes in 1980 to 124,300 tonnes in 1985. This is mainly caused by the conversion of fertile vegetable land into housing estates and other urbanization projects.

The export policy of the country opens it to the ups and downs of the world market.

The present slump in almost every export commodity, particularly palm oil and rubber, is a harsh reminder of the dangers inherent in an agricultural policy which is over-dependent on the world market. The effect has been to cause hardship among small-holders and their families.

Grave problems have also arisen from the introduction of "modern" agricultural practices. These usually involve extensive and intensive use of chemicals. Widespread use of pesticides and weedicides on rubber and oil palm estates have resulted in poisoning of the workers. Many of these toxic chemicals are either banned or restricted in developed countries.

The replacement of traditional methods with modern technology, especially in the rice sector, is showing a backlash effect. Mechanization and increased use of chemical fertilizers raise capital investment, making the small and often poor farmers unable to participate profitably in rice production. Where large-scale government schemes have been implemented, high yields were shown initially. This was soon followed by new diseases and pest attacks.

As every country in the world becomes aware of this destructive pattern of chemical agriculture, finally sickening and even killing the workers and ruining the land, the time must come when other methods will be applied, but today short-term self-interest still stands in the way.

Editors interested in the SAM feature service, a nonprofit environmental group, may write to Sahabat Alam Malaysia, 37 Larong Birth, Penang, Malaysia.

For a little good news we turn to the United States, where independent entrepreneurs are increasingly setting up wind machines for an alternative source of electrical energy. There are, for example, three wind farm regions in California, one in San Geronio, one in the Tehachapi Pass, and another in the Altamont Pass in the ranch country east of San Francisco near Livermore.

According to an article in *Discover* (June, 1985):

California accounts for 95 per cent of the commercial wind energy produced in the U.S. and 75 per cent of the world's total. Only in Hawaii has another wind farm of any size been erected. . . .

In Denmark, the world's number two country in wind power, families or communities own about 500 machines singly or in small clusters, but far more of the rugged Danish-built machines are being exported to the United States—4,000 by the end of this year [1985].

How do the operators of wind machines sell the electricity they generate? In 1977, the tenant-owners of a New York apartment house installed a wind generator on their roof and obtained a ruling from the New York Public Service Commission that Consolidated Edison had to pay a fair price for the excess energy produced—a

precedent that eventually became the national policy. Some day, the utilities may be simply distribution networks for energy, the electricity being produced by a multitude of comparatively small producers by alternative means—good for everybody.