
Small Talk

As an economist Fritz had one great handicap, for which Beveridge bears not a little responsibility: he was concerned more about people than efficiency. 'Never forget that your first responsibility is to the men,' he told George McRobie when he joined him at Hobart House in 1956, and his own feelings of responsibility drove him on to think about organizational structure, nationalization and work with the needs of working men firmly in the forefront of his schemes.

Beveridge, and then Buddhism and Burma. Beveridge taught him how to identify with the needy and the working people, Buddhism taught him that the purpose of work was more than fulfilling material needs, that its function was also the development of human potential and man's relationship with his fellow beings and towards God, and Burma showed him that the assumptions he had made as an economist did not accommodate this new understanding.

Shortly after his return from Burma in 1955 he described the impact of Burma on his economic thinking to his sister Elisabeth.

Now I have been back in my office for two months and see the world through slightly Burmese tinted spectacles. In any event it has been a great gain for me to have been 'out there' and to have seen that there is another way. But there arise weighty problems for an economist and business man. In Burma the people are so happy because they have no wants:

they have so much time because they have no labour saving machinery and methods; their heads and hearts are kept free for inner matters because they are not obsessed with outer things. What can an economist do when his job is to double the 'social product', the so-called standard of living every twenty-five years? Oh dear, oh dear, the Burmese think we are all completely mad - and they would like to acquire as many of the Western 'achievements' for themselves as quickly as possible.

He had already shown what he thought the task of a Burmese economist should be with his paper 'Economics in a Buddhist Country', but his advice to the Burmese to promote their cottage industries and develop as much self-sufficiency as possible before Western economics ruined both their inner and outer way of life had not been received with much enthusiasm. It did not deter him from continuing to work on this idea on his return to England, using every opportunity to lecture about his Burmese experience and its implications on Western aid to the 'underdeveloped' countries. His ideas never failed to have a dramatic impact. They were not only a critique of the way in which the West was trying to help the poor of the world, but also of Western economic life itself. Those who believed they were doing good works did not take kindly to being told that they would do better to leave well alone. Some of his audience were shocked at his message, as the Secretary to the National Peace Council, Eric Baker, wrote to Fritz after a talk in October 1955:

Quite obviously the criticisms which you had to make of technical assistance as you have seen it at work in Burma were quite new to most of the people there, and it was a rude shock to their energetic sympathy for the Burmans to be made to stop and think out whether they were in fact taking the best way of helping them. That it was a shock to them was quite clear from the fact that almost all the questioners patently misunderstood what you were trying to say. Quite clearly they would go home and worry over it for some time yet.

Through such thought-provoking talks Fritz's name became known among circles concerned with the developing countries, and in July 1958 he was introduced to a leading Indian disciple of Gandhi's, Jayaprakash Narayan, who was on a visit to London. It was the beginning of a long friendship. J.P., as he was known, recognized in Fritz a kindred spirit, and a man who could help India.

In the spring of 1959 Arthur Koestler wrote three articles about Indian poverty and the Bhoodan movement for the *Observer*. The Bhoodan movement was trying to create spiritual and economic regeneration amongst the Indian people and was organized by leading Indian Gandhians, amongst whom were Jayaprakash Narayan and a mystic, Vinoba Bhave, whom Koestler described as 'the last of the Saints'. Vinoba had undertaken to walk from village to village all over India persuading rich landowners to give up a proportion of their land to the poor, a campaign which seemed to be achieving remarkable success as a result of his sincerity and evident holiness. The response provoked by the articles persuaded David Astor, then Editor of the *Observer*, to call a meeting of some of those who had expressed interest in helping the Bhoodan movement and in June 1959, under the guidance of a friend and writer on South African affairs, Mary Benson, 'British Bhoodan' was founded.

Among those invited to meet with David Astor in his office were Ernest Bader of the Scott Bader Commonwealth, who had been in India a year or so earlier and had seen Vinoba at work, Donald Groom, a Quaker who had worked with Vinoba for three years, Lady Isobel Cripps, Mary Benson, John Kane, and Fritz. Fritz was invited because of his experience in Burma and his challenging views on economic aid to the poor countries of the East. The Bhoodan movement interested him very much and he explained to the assembled company how the conventional approach to overseas aid - the raising of national income - did not necessarily help people in a country like India but could indeed make them poorer by giving them Western tastes. He thought a movement like Bhoodan could cut through conventional thinking which held that help could only be given through the banking system to large projects. It could show that simple assistance like providing a village with a

pump could make a significant impact on a village development scheme.

The meeting ended without any specific agreement on action but unanimous agreement that their support for Indian Bhoodan should be directed by those at the grass roots of the movement, namely the Indian leaders themselves, and a letter pledging support and asking for guidance was drafted to J.P. Narayan.

Nothing very much was achieved by British Bhoodan but its existence was of great significance for Fritz's life. First of all it brought him together with Ernest Bader. Bader was a Swiss industrialist who had emigrated to England as a young man before the First World War. He had been determined not to become a wage slave but to be responsible for his own life and by the end of the Second World War had become a very successful and wealthy businessman. It then occurred to him that his success was dependent on the very slavery that he had vowed to avoid for himself and, unable to live with this contradiction, decided to take a courageous and revolutionary step: he handed his company over to his employees. Scott Bader and Co. Ltd became the Scott Bader Commonwealth, a pioneering common ownership firm.

Ernest Bader was of great interest to Fritz for two reasons, apart from the fact that Fritz liked the dynamic old man whose fiery nature was full of contradictions. (Fritz described him as very militant pacifist, a very dictatorial democrat, a very intelligent ass and an assinine genius.)¹ He felt that Ernest Bader's story was a great one, not because of his business success but 'because when someone wakes up "Nel mezzo del cammin di nostra vita" . . . [it] is always a great story. This is what human life is about, and that he is prepared to be generous and not clinging, abandoning his ownership: that is a great story.' For this reason alone he would have been glad to meet Bader, but it was also an important encounter because of his interest in the implications of ownership and the structure of socialized industries. The Scott Bader Commonwealth added a new dimension to the concept of non-private ownership. In this model the workers themselves were the owners, they benefited directly from the profits which, after a proportion had been taken for further development of the firm, were divided equally

between the owner-workers and charity. In the Scott Bader Commonwealth welfare was not a handout from above, it was administered by the workers themselves. It seemed an ideal answer to the problem of private industry and the all-pervading profit motive.

Bader recognized that Fritz was a man of integrity and, in his impulsive way, immediately tried to snap him up for Scott Bader. Fritz was a little more cautious but he kept in close touch with Bader, studied the Commonwealth for his paper on 'Socialisation in Great Britain' and eventually, in 1963, joined the Trustees of the Company after forging a more permanent link with Ernest Bader by asking him to become Robert's godfather.

Friendship with Ernest Bader was an important consequence of the meeting in David Astor's office, but more significant still was the connection with India. In November 1959 J.P. Narayan came to England again. A month earlier he had arranged the publication in India of 'Economics in a Buddhist Country' under the title *Towards a Statute of Liberation* and reported to Fritz that it had been favourably received by many Indians. It was the beginning of a process in which Fritz found himself explaining to Indians, including Gandhians, the real meaning of Gandhi's economics, the concepts of *Swadeshi* and *Khaddar* and their practical application. In this process Fritz was himself led towards a completely new understanding of economic development and for this reason would have accepted Narayan's invitation to go to India in 1960 had it not been for Muschi's illness and eventual death.

Even without the immediate possibility of a visit to India on the horizon, Fritz continued to keep in touch with J.P. The Bhoodan movement was encountering a number of problems and much of the land that had been redistributed had remained unused and undeveloped by the villagers. The urban Bhoodan movement had even greater problems and J.P. appealed to Fritz again to come and help them to interpret the words of Gandhi in a practical and dynamic way for the poor of India.

Fritz's domestic situation did not allow him to contemplate a prolonged visit but in January 1961, leaving the children in Vreni's capable hands, he eventually paid a flying visit to Poona to speak at an International Seminar on 'Paths to

Economic Growth'. It was his first experience of real, devastating poverty, quite different from his trip to Burma where the simplicity, cheerfulness and rich inner life of the people had belied the poverty indicated in the statistics. In India he saw despair, a complete collapse of spirit, of the soul of India. He spoke passionately and urgently, developing all the themes on which he had worked in the past five or more years. He attacked the Western concept of economic growth, pointing out that for reasons of energy consumption alone it would not be possible for the whole world to achieve the level of prosperity and consumption of the West. He attacked economists such as W.W. Rostow and his 'take-off into self sustained growth' as irrelevant to the realities of the developing countries; he spoke out against the commonly held view that economic development could only be valid when it was synonymous with Westernization. Again and again he returned to the people of India themselves, asking:

Why is it that the people are not helping themselves? What has come over them? On the whole, throughout history, all healthy societies have managed to solve their problem of existence and always with something to spare for culture. Grinding poverty with malnutrition and degradation, with apathy and despair, as a permanent condition of millions of people, not as a result of war or natural catastrophe - this is the most abnormal and, historically speaking, an unheard-of phenomenon. All peoples - with exceptions that merely prove the rule - have always known how to help themselves, they have always *discovered a pattern of living which fitted their peculiar natural surrounding* ...²

In searching for an answer to this question Fritz looked back ten years to his daily train journey to London when he had first begun his enormous re-education programme. He recalled one of the first books he had read then: Prescott's *Conquest of Mexico*. There perhaps lay an answer: 'Now I shall venture to suggest the reply that the cause lies in the impact of the modern West upon these societies and populations. The paralysis or apathy ... is similar to the paralysis of the Aztecs when they met Cortes and his men sitting on the backs of horses and

equipped with firearms. It was not the power of the Spaniards that destroyed the Aztec Empire but the disbelief of the Aztecs in themselves.'

The impact of the West, Fritz continued, was not merely fatal in its destruction of India's belief in itself but compounded itself in the completely misguided attempt at aid. The transfer of Western methods, modern transport systems, and high technology merely served to make the problems all the more devastating by creating a dual economy of a small Westernized sector within an ever-deteriorating morass of traditional society. The answer was not to speed up the expansion of the Western sector, which in itself caused the sickness of the traditional sector, but to go to the aid of the vast traditional sector. 'Help those who need it most,' and 'Find out what the people are doing and help them to do it better,' were the two slogans Fritz offered those concerned with the development of their country. The traditional body had to be protected from the Westernized sector. Modern factories, even if located in areas of poverty and unemployment, did not help if they depended on materials and machinery from another district. The effect of a modern factory was not to create incomes for the mass of the people but to put out of work small local craftsmen who could not compete with cheap mass produced goods. Ultimately the effect was greater poverty because by destroying the modest income of local craftsmen, the factory's output thereby destroyed its own markets.

It was only after his return from India that Fritz, still very much preoccupied by the tremendous problems he had glimpsed, began to grope towards ideas that eventually were to contain, to his mind, the solution to the problem of poverty. He tried to penetrate to the very roots of the problem. India seemed to be a dying society, not an emerging one, dying not only economically but also culturally. The two were clearly not unconnected. Fritz realized that culture and intellectual activity could only flourish in a society that was more than purely agricultural. Development was not a question of material wealth so much as intellectual or cultural achievement which stimulated and fertilized economic achievement. He put these ideas clearly in a letter to Shri Shankarrao Deo, an Indian working at the Gandhian Institute of Studies at Varanasi:

What I had in mind when talking of intellectual starvation was first of all the dying away of non-agricultural production in rural areas and the resulting impoverishment of the whole local community both materially and in terms of job opportunities. It seems to me significant that in the Christian tradition we talk of the 'City of God', never of the village of God. Human life, it would seem, can come to a full flowering only when it ceases to be *purely* agricultural, that is when cities are founded in which an intense intellectual life can develop. These cities offer both opportunity (as symbolised by Jerusalem) and temptation (as symbolised by Babylon). Both the best that human nature is capable of and the worst comes from the city, never from purely agricultural population. Village life, therefore, it seems to me, must be closely connected with town life, and by 'town' I do not mean vast conurbations of the modern type.

The question, therefore, was how to upgrade village life, how to inject culture, in its broadest definitions of non-agricultural activity, into rural India. With this structural concept in mind, Fritz began to think more deeply about the question of technology and technology transfer, and its implications for job creation. 'What', he asked 'is the chance of providing modern factory employment for all or most of these people who are hanging around the factory gates, hoping against hope?' The answer hinged on the cost of creating each work place, which depended on the technology used. He saw at once that the cost was too high for the poverty-stricken Indians to create mass employment if it was to rely on modern technology. Fritz suggested that a formula which would determine the level of technology, and therefore the cost of each job affordable by a given society, was related to the average income per head of the working population. In England, for example, in the early 1960s, one could roughly say that the average (national) income per head was about £1,000 per annum. So was the average capital cost per work place. In India, on the other hand, an investment of £1,000 represented perhaps twenty or thirty years' income of one (average) man. Therefore the cost per work place in India should be one twentieth or one thirtieth of that of an English work place.

Fritz concluded:

The upshot of this analysis can be stated quite simply and is in line with actual historical experience. Economic development is obviously impossible without the introduction of 'better methods', 'higher technology', 'improved equipment' - call it what you like. But the degree of 'betterment' or 'improvement' must be such that the great mass of producers upon whom the survival of the country depends, can - so to speak - keep in touch with it. The steps must be small, so that they produce stimulation and not discouragement. In terms of capital expenditure, the improved method, the higher technology, must be *accessible* to the majority of existing producers, even if only a minority will actually have the drive to reach out for it. Intellectually, the better method must equally be *accessible* to the average man without a college education. All development, like all learning, is a process of stretching. If you attempt to stretch too much, you get a rupture instead of a stretch, or you lose contact and nothing happens at all.

With the consideration of the cost per work place and its implications for the level of technology employed, Fritz had moved a long way from the protection of cottage industries which he had advocated in Burma. He still insisted that it was essential to protect indigenous production from Western mass-produced goods but he had not yet solved the problem of how to achieve, in Gandhi's words, 'Production by the masses rather than mass production'. For this he needed to return to India for a slightly longer spell. In early 1962, no longer burdened by the worry of domestic arrangements after his marriage to Vreni, Fritz at last felt free to contemplate a return to India. It was arranged for November of that year.

It was a strenuous trip but proved to be another turning point in Fritz's life. He travelled the continent of India day in and day out, seeing sights which filled him with sadness and wonder. He was struck by the aristocratic appearance of so many Indians and found it hard to understand how they could have fallen to such depths. But his contact with administrators and government officials soon gave him an answer to why

everything seemed so hopelessly chaotic. He was taken from one village to another. He spent some days talking with Vinoba Bhave, but the two men must have had opposing signs in their horoscopes for Fritz, though respecting Vinoba's work, was not drawn to his personality. He was shown humble rural industries and high technology aid projects so starkly in contrast with each other that suddenly it was as if a light went on in his mind. He looked at the simple potter, or weaver toiling with incredible patience at his craft with the most humble and often quite inadequate tools, and then he watched the sophisticated factory machinery rolling out the same products. At one such ceramics factory he began to talk to a young Indian minding a machine. He had come from a nearby village to train in the new factory. 'What will you do when you have finished training?' Fritz asked him. 'Start your own business?' The young man stared at him. 'How could I possibly do that?' he replied. 'I shall go to the town and look for a job.' And Fritz thought of the thousands of pavement dwellers all over Indian towns and cities, all on the same search. Some might be trained as this young man was, but none of them would ever have the capital to make use of such skills. Then it all clicked into place, the need for masses of jobs, the ratio of income to cost per work place, the destructive effect of modern technology on the stagnating hinterland of India where the traditional way of life was no longer a living healthy fabric but was rotting, dying, and hopeless. He had almost reached this point the year before when he had written that technology and skills must be accessible to those who needed it, but the real evidence came then. What was needed was a level of technology better than the simple methods used in the rural hinterland, more productive than the traditional tools, but far simpler and less capital intensive than the modern technology imported from the West. What was needed was an intermediate level of technology.

Fritz lost no time in discussing this new concept with the Indian planners whom he had come primarily to advise on that 1962 trip. The Gandhians among them recognized at once the sense in what he was saying. Great plans were made to start development projects all over India, concentrating on an upgraded level of technology that could help uneducated villagers to improve their productivity by steps. Fritz was acclaimed as

the man who could interpret Gandhi to the Indians. He had taken Gandhi's ideas and formulated them in a practical, comprehensive way that seemed utterly relevant to India's needs, which gave hope and new energy to a gigantic task.

On his return to England Fritz discussed his ideas with friends and colleagues. At the Coal Board George McRobie was one of the first to act as a sounding board for the concept of intermediate technology. In 1960 when Fritz had discussed leaving the Board for a post in India he had suggested that George go with him. Both men were very much involved in the problems of India. There were others too. Since the days of British Bhoodan, Fritz had become more involved with a group called the African Development Trust and had become one of their trustees together with Mary Benson, Arthur Gaitskell, Mr and Mrs Raven, Christopher Cadbury, Michael Scott and Charles Brook-Smith, all very experienced in the problems of developing countries. The A.D.T. were primarily engaged in supporting the efforts of Guy Clutton-Brock in building up a multi-racial community project around an Anglican Mission Farm in Rhodesia and other similar initiatives in Malawi, Botswana, Tanzania and Zambia. Fritz's ideas were relevant to their work too, and provided Fritz with the opportunity to work out and polish his new concept for its public launching. In late 1963 the Secretary of A.D.T., Peter Kuentler, left suddenly for a post with the United Nations and a new Secretary, Julia Canning Cook, was appointed. She was the sort of woman to whom Fritz felt instantly attracted; dynamic, intelligent, experienced and instinctively able to understand what he was saying. It was the beginning of a very fruitful partnership and close friendship.

As yet there had been no opportunity to do something really practical about the idea of 'intermediate technology' and anyway Fritz's life at the National Coal Board had taken on a new and busy turn with the exciting new partnership he had formed with Robens. 1963 was the year in which his responsibilities were increased with his appointment as Director of Statistics. He was also travelling all over Europe defending the coal industry from the general attack on coal, which was not confined to Britain but was common to other European coal producers. On one such trip he received an encouraging sign

of public recognition from the Technical University of Clausthal in Germany, which awarded him the Honorary Degree of Doctor of Science. Thenceforth he was known as Dr Schumacher, one of the few academic doctors who have never obtained a degree. With this new burst of activity Fritz could no longer contemplate taking on the sort of advisory role in India that had attracted him a few years earlier. He was delighted therefore when George McRobie decided to go to India for six months in 1964 to inject a bit of dynamism into the introduction of intermediate levels of technology in India and generally assess how things were progressing since the resolutions taken at the Planning Conference Fritz had attended in 1962. The reports coming back had not been too promising.

Fritz stood once more on the sort of threshold he had had to cross on several occasions before in his life. He had conceived another of his world improvement plans and the time had come to see that it was implemented. The Indians' recognition and acknowledgment of the importance of his idea had proved its applicability. It was time to go to the highest level to sell the idea to policy makers throughout the world.

The opportunity arose in September 1964 at a conference in Cambridge attended by some of the world's top economists, among them Fritz's old colleagues of Oxford days, Tommy Balogh and Nicki Kaldor. Fritz prepared his paper very carefully, giving the economic argument for an intermediate level of technology in language to which his august colleagues could relate. He named the concept simply 'Intermediate Technology'. When he had delivered his address there was uproar. Fritz's ideas were so far from the conventional economic theories of the day that they were rejected out of hand. For two days Fritz's paper dominated the conference. Most vociferous amongst its critics was Nicki Kaldor. Fritz left with little doubt that his colleagues amongst the economists were not going to help him change the world.

The vehemence of the attack he received in Cambridge did not discourage him from his efforts. Rather, it reaffirmed his severe criticism of economists and economics as it was practised in the West. More discouraging was George McRobie's report on his return from India. There was little actual work going on in India, he told Fritz. One of the reasons was that

they had no real concept of what intermediate technology was. They did not know where to obtain it and could think only in terms of crudifying existing sophisticated processes, which had led to the widespread belief that intermediate technology was something inferior, something second best.

About this time Vreni, beginning to become aware of her dependence on Fritz, realized that she must put her life on more solid foundations if she was to survive the increasingly frequent lonely evenings and periods when Fritz was travelling, lecturing on Coal Board business or on economic development. One evening, as soon as he was home, she settled herself in her usual position down at his feet in the study. The gas fire was on and he sat in his armchair next to his laden bookshelves. His hair was beginning to grey now at the temples, and his suit jacket, hanging on a peg on the door, had been replaced by a comfortable woollen cardigan. Vreni, black curls bobbing in her anxiety, put her problem to him and asked whether she could undertake some form of training so that she could have her own life and career to occupy her. She suggested nursing. Fritz listened seriously and thoughtfully. 'Of course you must if you feel that is what you want,' he said finally. 'We will make all the necessary arrangements.' Then he added, 'But, please wait a bit until I have established "intermediate technology".' It was the nearest he ever got to admitting that his whole success depended on the undemanding care of his wife at home. Vreni abandoned her idea of a career.

After the Cambridge furore and ensuing publicity, Fritz and George decided to pay a call on Barbara Castle, Minister of the recently created Ministry of Overseas Development. She received them warmly and her sharp mind had no difficulty in understanding the gist and the validity of Fritz's argument. She said that if the Ministry could be shown the demand for such an intermediate level of technology they would fill it. But, in fact, this reply was as much of a rejection as the Cambridge economists' fury. The millions of peasants throughout the world who needed help had never heard of intermediate technology. They could not possibly begin to demand it without a massive education and publicity campaign, and for this Fritz needed money.

Having failed to convert or convince the academics or the

politicians, Fritz turned next to the people. Once again it was David Astor who had a hand in the breakthrough. He asked Fritz to write an article for the *Observer* on intermediate technology. Fritz called it 'How to Help them Help themselves'. Week after week passed and the article did not appear. Eventually Fritz lost patience. He wrote a letter to the *Observer* saying, 'My usual fee for an article written on request and not published within six months is one hundred guineas.' Within a week the hundred guineas arrived in the post and no article appeared.

Now Fritz began to feel action was urgent. One fine but freezing spring morning he rang Julia Canning Cook. After lunch he took her by the arm and, propelling her up and down St James's Park, talked at her for several hours. Julia felt that for most of the time she need not have been there. He was not interested in her, merely in a listening post. At last he came to the point. 'I want to leave the Coal Board,' he said. 'I want to concentrate my efforts on Intermediate Technology which I believe is crucial for the future.' Addressing Julia directly at last he asked her, 'How can you guarantee to create an organization that will support me and my two small children and household?' Julia's answer was as blunt as his question, 'No way. You have to do an act of faith the same as the rest of us.'

Fritz was not yet ready for that act of faith, although Julia felt that he had made up his mind to leave the Coal Board as soon as he found a cushion to soften the financial responsibilities he still had. In the event he was not called upon to make the act of faith at that point. For another five years Robens agreed to supply the cushion, provided that Fritz stayed at the Coal Board. He allowed Fritz as much time as he needed for intermediate technology matters, knowing that even on short time Fritz would serve him with diligence and commitment.

There was still a problem of money, to give publicity to the concept of intermediate technology. Then, one Sunday morning in August 1965, Fritz opened his *Observer* and found his article on Intermediate Technology on the front page of the review section. The response that followed was tremendous. The letters pouring in showed Fritz that he had struck a chord in the hearts of many people who were concerned about the problem of world poverty. It struck him that if those with

power and influence were not prepared to come to the aid of the poor, then perhaps ordinary people would. George McRobie agreed with him and suggested that some of those who had expressed interest should be called together to discuss practical action. It was George's last task before returning to India to convene the meeting at the offices of the Overseas Development Institute in Piccadilly. His suggestion proved successful. After two meetings, attended by people from a number of different disciplines, it was decided to form a group with a secretary and each person present handed over five pounds towards the cost. Julia Canning Cook, who attended those first meetings, agreed to act as midwife to the infant and the Intermediate Technology Development Group was born and housed in the offices of the A.D.T. at Hop Gardens.

The terms of reference of the new group were summed up in the slogan Fritz had coined in 1961: 'Find out what the people are doing and help them to do it better.' A worldwide network of individuals and projects was soon established which showed very clearly both the need for and the existence of a technology more appropriate to the needs of the poor. Fritz's hundred guineas from the *Observer* article helped to fund a publication bringing together information about the equipment that was available for the small-scale farmer and craftsman. The demand for this modest guide led to a more ambitious publication: a buyers' guide for small-scale equipment. It was called *Tools for Progress*. By this time the group was beginning to grow. It had moved to King Street in Covent Garden and had half a dozen members of staff, some paid, some more or less voluntary workers.

The history of the Intermediate Technology Development Group is one of tremendous response to a good idea, of how, when the seed of the idea fell on good ground, it grew and yielded fruit a hundredfold. From the buyers' guide, grew the attempt to fill the gaps in technology that obviously existed. Fritz's idea was not to dredge up nineteenth-century technology but to use the best of twentieth-century knowledge and techniques and apply them to creating new and simple methods. Advisory groups were set up to work on building methods and materials, agriculture, water provision, small industry, medicine, education - the list went on growing as

more specialists became interested in applying the concept of intermediate technology in their field of interest. Fritz's idea was to use the skills of students and the resources of university departments, particularly in the engineering faculties, to develop new technologies. He saw it growing as a source of Ph.D. subjects for students and practical help for the group.

Once it had got going, the Intermediate Technology Development Group took off on a life of its own, so that today its problem has become its unwieldy size. It is not the place of this book to trace this development in detail. It is, however, relevant to trace Fritz's involvement. His role very soon became largely twofold, to raise money and to sort out personal problems. As the group's activities expanded, the need for funds naturally grew and Fritz spent a great deal of time cap in hand. It was not a task he enjoyed nor one that became less pressing as the group's annual financial needs reached a quarter of a million pounds. He wanted to make as many of its operations as self-financing as possible, selling publications, setting up independent groups throughout the world with I.T.D.G. acting only as the centre of the great net, putting people in touch with each other but letting them do their own work. As the group expanded, so did the number of independent-minded and creative staff, and the group was rarely without tensions. Fritz was called in frequently to sort out crises caused by rows in the office. Although he was not involved with the day-to-day running of the group he was a father-figure to all those involved, there to listen to their problems, give advice, guide their thinking and smooth over clashes of personality. Fritz was very good at being the peacemaker. He was less accomplished at hiring and firing. Personnel often tended to select him rather than the other way round. If he was approached by someone with enthusiasm and a bit of know-how Fritz instantly recognized the positive qualities in his would-be employee and as often as not a niche was found. Fritz's positive personality, always seeing the best in everyone he worked with, generally produced the best out of these employees, but away from his direct influence their less positive attributes soon became apparent, and it was not obvious to all why Fritz might have chosen some of his colleagues. Occasionally it became necessary to get rid of someone who proved to be a disaster

and whose faults the group, with its slender resources and ever empty bank balance, could no longer afford to accommodate. Such a problem occurred very early on in the group's life when it had only three employees. Fritz could not bring himself to act decisively and tried every way he could think of to get the unfortunate man to recognize his failings and resign. This gentle method failed to achieve the desired result and tempers began to get very frayed at the office until a member of the group's council took the matter into his own hands and for the first time an employee of I.T.D.G. was dismissed. Fritz was relieved but unhappy. He had wanted to avoid inflicting the humiliation of dismissal on a person of good will. Had it been at the Coal Board he could have just been 'moved sideways', but with a staff of three - well, what could one do?

The foundations of the Intermediate Technology Development Group at last enabled Fritz to implement one of his world improvement plans and eventually affect thinking on the tremendous problem of world poverty. Even Nicki Kaldor, one of his strongest critics, now goes so far as to say that there is value in the concept of intermediate technology. It represented a profound change in Fritz's personal development. He had spent many lonely years in which the solutions he had proposed for major problems in the world had remained unrecognized, or too controversial to be acceptable to those who had the power to implement them. Keynes, Stafford Cripps, Cecil Weir, the Coal Board, the Burmese Government, the Indian Government, the economists of the 1960s and the Ministry of Overseas Development, all of these ultimately had failed him and rendered him powerless.

The concept of intermediate technology was another such world improvement plan. Again he tried to go to the top to get it implemented, again those who had the power failed him. And then the ideas which developed from his 'Statute of Liberation' had their own liberating effect on him. He perceived that this plan was different. In the past his plans had depended on government action, on the changing of 'the system', on structural alterations. The concept of intermediate technology was free from this necessity. The earliest slogan he had coined held the answer: 'Find out what the people are doing and help them to do it better.' Action would result not from government

intervention but from the people themselves. Here too lay the great power and appeal of intermediate technology. In it the most humble people could find hope that they could raise themselves above grinding poverty.

The response to intermediate technology came from all over the world from people who were actually spending their time trying to improve farming methods, or small businesses, or manufacturing. It gave hope to people at all levels, to the farmer who could improve his output by a better designed hand-plough, to the builder who could make more mud bricks with a more efficient hand-press, to the potter whose hand-made pots grew at twice the rate on a wheel powered by foot pedal or even a small engine rather than a wheel spun by hand.

Fritz had been right all along. It was possible to achieve results without power and force. But what he had not realized was that those whose humble daily actions seemed quite insignificant were those who had the power to change the world. It was this message of hope, that each individual had the power to effect change in his own humble, apparently insignificant life, that spread like wildfire and that led to the most dramatic change of all in Fritz's life.