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Secretaries of allied organisations can receive regular Speakers Itineraries in sufficient time for planning additional engagements in particular areas. The schedule for October-December 1974 will be available in June. Fees will not be charged for TSS speakers but help towards travel expenses would be expected.

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The cover illustration by Hamish Simpson is of Bambi, the favourite of Eithin-y-Gaer. She is not as demure as she looks and, since standing for her portrait, has given birth to two kids.

The Case for Optimism

Keith Hudson

Introduction

In this article* I hope to demonstrate that there is a sufficient case to be made out for optimism and a strategy for survival. The answer, as I see it, is given in the last section, *A brand new movement*, but I would ask that this is not read in isolation: there are important strands in the argument to be identified and thought about in the previous sections.

Pressure groups or fundamental change?

In the coming few years committed conservationists and survivalists will have to ask themselves the question whether they believe that the sustainable society will be achieved by traditional pressure group and political methods alone or whether an entirely new movement is necessary.

I believe that pressure groups will be unequal to the tasks before us. By this I do not mean that the pressure groups with whom we are most closely associated such as the *Conservation Society*, *Friends of the Earth* and *Population Stabilization* are not worth supporting. They are worth every penny. In the last few years these and allied environmental groups have achieved very creditable results. Nevertheless, I believe that their activities will not be enough because there will be insufficient time available for the sort of change we are looking for. Modern pressure groups have to operate in the going and coming world of politicians and senior civil servants and often have to adopt ingenious stratagems in getting legislation through. If an opportunity is missed one year it may not recur for several years.

*This is a stretched version of a talk given to the Warwickshire Branch of the Conservation Society (March 1974).

In accepting the given political situation as the medium in which they work, pressure groups are restricted to fortuitous circumstances and to a rate of change largely outside their control. They are a prey to political crises and also to wider economic change. If we were confident that society would remain largely unchanged for a long time to come, then gradual reformism would be entirely acceptable. However, many of the changes we are looking for would have to be associated with considerable political and constitutional change. In *Turn Again Westminster* Woodrow Wyatt says that fundamental electoral reform, appropriate to a modern complex society, would take at least 100 years. This would seem to me to be about right.

But it is likely that drastic economic change will occur long before then. We therefore cannot afford to hitch ourselves too tightly to the slower traditionally reformist wagon. My own feeling is that unless we begin to evolve quite new social and economic mechanisms well within the next 10 to 20 years then we are probably doomed to adverse social change outside our control. However, as I hope to show later in this article, I do think there are sufficient grounds for believing that fairly rapid but peaceful and evolutionary change is possible.

In a recent talk Lord Ashby said, "population, consumption and pollution are spectres which will brood over mankind for the rest of time". From what I know of his writings Lord Ashby is not given to dramatic statements so I would recommend this quotation as a well considered opinion. Personally I would amend his "rest of time" to "200 or 300 years" and I will try to justify this later.

Preliminary grounds for optimism

Before I sketch in short term developments and the longer term future I should now like to describe some of the reasons why I am optimistic.

1. Ever since the Civil War in this country we have developed high conceptions of democracy and the rights of the individual: higher, I believe, than any other country. I see these as permanent gains, woven into the consciousness of people and which could not be lost without intense dictatorial repression lasting several generations. I believe our fortunate history has given us a resilience and maturity that will stand us in good stead in the coming decades. Without being starry-eyed about our democratic system—which is far from what some of us would like—it is nevertheless capable of sustaining great strains. An encouraging example from history was the censorship of the press, repression and sometimes downright secret terror methods which bore down on radicals and intellectuals in the 1820s in this country when the establishment were panic stricken about the possibility of the French Revolution crossing the Channel. However, even this passed and what followed was an adequate resumption of reforms and steady extension of civil liberties.

Despite all the hysterical talk about the breakdown of discipline in modern society I am sure that most people have a clear idea of what their responsibilities are. If they are not satisfied with the quality of leadership they are quite prepared to teach industrialists and politicians humbly by insidious methods such as by going slow, by working to rule, by strikes, by voting ambiguously in general elections, and so on. This is not anarchistic. The ordinary person is quite conscious of how far he should go in testing the constitutional fabric.

2. We are now in a world of scientific method and this we should welcome because it has already given us some guidance as to the dangers we face. The desert areas of the Mediterranean region caused by deforestation, intensive agriculture and over-grazing of goats, have already shown the devastation that can be caused unknowingly by man. In blaming careless technological growth we should not throw the baby out with the bathwater. If we are to survive it will only be by the most careful scientific appraisal of our condition and by careful control of future planning. Although there are likely to be many areas that will always be open to scientific enquiry—and thus, by implication, many areas that we shall always be *unknowledgeable* about—I believe that we know, or are not far off knowing, sufficient about the biological housekeeping of this planet to avoid gross errors in the future. Even if we do not know everything in detail we shall be a great deal humbler in what we suggest as 'improvements'.

3. Associated with the previous point but sufficiently important to be placed separately is the scientific understanding of ourselves. Never before has there been such an explosion of research into our minds. *Social Psychology*—why people conform, propaganda, persuasion, self-justification, the growth of prejudice; *Behaviour Therapy*—how behaviour is earned, treatment of phobias, inter-personal effectiveness, happiness of the individual; *Ethology*—the purpose of groups, the leadership/relationship syndrome, importance of status, hierarchy, territorial feelings. These and other areas of the science of human beings will revolutionise the understanding of ourselves in the next decade or two. This will take time to work its way through to the general population but it will be immediately available in the literature for the more intelligent and adventurous people whom we would expect to be the leaders of our movement in the years to come. I see these subjects as making significant contributions to the design of future communities.

Imminence of a new Dark Age

I have mentioned that I foresee a period of 200 to 300 years in which, in Lord Ashby's words, the spectres of pollution, consumption and population will brood over us. First of all though I have got to justify the likelihood that this period is starting now, or at the most in the near future. We are all familiar with the exponentially rising curve of consumption, a product of increasing population and rising standards of living. The production of resources, being finite, cannot, of course, keep up with this potentially infinite demand. What has surprised us in recent months is not that resources are limited but that crises in supply are starting quite a long time before the physical peaks have been reached.

In the post-war period oil has been the chief promoter and sustainer of industrial growth. The physical peak of cheap and readily available oil, assuming recent economic growth rates, would be about 20 to 30 years from now, but production is already in decline. In the recent words of Mr. Clifton C. Garvin Jr, President of the Exxon Corporation and surely the most authoritative person in the world to say so, "More than likely, we are going to have shortages large enough to present a very serious situation to all consuming countries of the world".

The precipitating reason for this, as we all know, is that the Arab countries are cutting down on exports. For a full two years before the Arab-Israeli War of October last year, Arab spokesmen, such as Dr. Abderrahmane Khene and Dr. Nadim Pachachi, were going round the capitals of the Western world beseeching politicians—going down on their knees to them—to voluntarily cut down on consumption of oil. They were saying, and I believe they were sincere, that oil is much too valuable to burn in power stations or internal combustion engines and should be regarded as a long term resource for mankind—as a starter chemical for fibres, plastics, drugs, nitrogenous fertilisers and a host of other organic products for which there is no other abundant source material. Unfortunately, Western Governments (including Japan) took little notice. (Even as late as last summer John Peyton, Junior Minister for Technology, was saying that the planned Littlebrook power station in Kent should be oil-fired on the grounds that if we didn't consume the oil somebody else will!) Anyhow, since the war in the Middle East the leading exporting countries have adopted cruder methods of persuasion by means of prices and quotas. Already in February this year UK imports are 10 per cent down on September last year and 16 per cent down on the originally expected quota for the month. My own opinion is that the Organisation for Petroleum Exporting Countries, particularly Saudi Arabia—the most prolific source of all, will cut down on oil supplies by something like 10 per cent a year from now onwards. This will mean that in 30 years' time, instead of being completely drained, they should still have useful quantities left.

Thinking of this country, what must also be taken into account is the extreme unlikelihood that alternative sources of energy will be available within the next 25 years sufficient to keep post-war economic growth going. As oil declines there will be nothing to take up the slack.

For example, in the coal industry, Peter Walker, Secretary of State for Trade and Industry, said late last year that £1,000 million would be spent over the next few years. This investment would only stabilise the industry and would not appreciably increase the production of coal. Even if we are able to afford considerably more investment in the coal industry it will be 15 to 20 years before production of our coal significantly improves. Coal will not be the immediate answer and will not be so in the lifetime of most of us. But, of course, coal resources will ultimately be of the greatest importance in future planning and I shall return to this later.

North Sea oil needs a mention. A confidence trick is being played on the public who imagine that sufficient quantities will be flowing in the near future. At least one production rig has been delayed for substantial modifications and it is likely that the first major field, the Forties, will not be in production for several years yet. Despite all the frothy talk, the construction companies and Lloyds insurance are greatly worried by the structural integrity of the rigs as originally designed. The experience of rig construction companies has been confined to relatively placid waters and they have no metal fatigue data as to the lifetime of rigs standing in the tempestuous North Sea with its massive waves and 100 mph winds. They are well aware that only one accident to a major producing well, with perhaps 20 tapings to the oil-producing strata, would cost scores of millions of pounds, would pollute all the maritime coasts of the North Sea and would set back production for many years. My own guess is that even at this late hour we shall see a curtailment of rig construction, particularly those that are only at the design stage. The oil companies will probably want to concentrate on sea-bed installations completely protected from the weather. A great amount of advanced research is going on in this technology, for example by Vickers Oceanics, and when the snags are ironed out over the next few years I think this will be the chosen method. Altogether, I think that significant production of North Sea oil will be delayed for several years.

If North Sea oil is a bad dream then Atomic Energy is a nightmare. Before I briefly discuss this I'll mention that what has made the most impression on me is the number of eminent scientists with vast experience in nuclear energy who, on retirement, have publicly expressed the gravest reservations about the technology. Theirs is eloquent testimony. Among these, formerly of the US Atomic Energy Commission, can be mentioned David E. Lilienthal (formerly Chairman), Professor Carroll Wilson (formerly Manager) and Dr. George L. Weil (formerly Assistant Director of the Reactor Development Commission).

There is, as you will know, a tremendous controversy going on in this country at the present time, as to the rate of reactor construction, and the type to be chosen, for the coming years. Tremendous pressure is being mounted by manufacturers of steam boilers and electrical generators. They do not have to operate nuclear reactors, of course, nor are they in the least concerned with the long term problems of radioactive wastes; but they do appear to have influenced Mr. Arthur Hawkins, Chairman of the Central Electricity Generating Board, into making absurd projections of electricity requirements. These would entail building 4 or 5 nuclear reactors a year as soon as possible rising to about 8 a year by the turn of the century. If you cost this out at around £250 million per 1,000 MW reactor (and some estimates are already put at £400 million per 1,000 MW) plus peripheral works then this would come to something like £1,500 million a year (i.e. the cost of 1½ Concordes), rising to £3,000 million a year in 15 to 20 years' time.

Where is this sort of money to come from? It will certainly not come out of your pockets because for the next few years you are going to be hard put to help pay back the £1,000 million which our Government is going to have to borrow pretty soon to finance our astonishing trade deficits of the past two years. And then after that you are going to have to find even more to pay for North Sea oil production (public finance is supporting private investment in the ratio of 4 to 1) and expansion of the coal mines.

There are also other substantial costs of nuclear power which are completely avoided at the present time. Private insurance companies flatly refuse to cover more than a miniscule proportion of accident cover for reactors and even governmental guarantees (in the US and UK) are well below the potential damage that could follow a serious breakdown. Furthermore, the costs of the management of the highly radioactive wastes produced by reactors are evaded. They are considered to be about 3% of the costs of a reactor, *but this is only during its lifetime*—about 30 years. Rigorous supervision will have to be undertaken for many thousands of years afterwards (half-life of Plutonium-239 is 24,000 years). If these maintenance costs are taken into account then you have an astronomical bill: so astronomical that it is beyond my powers of arithmetic and beyond the slightest mention by the authorities.

Let there be no mistake about it. We have creamed off the cheapest and most readily available resources of the world, or are not far off doing so. In order to get more we are going to have to pay much larger amounts both capital-wise and environmental-wise. Each new technology, each new extension of older technologies, will require quantum jumps in financial investments. Already, very large international companies cannot afford the investments in the energy field. Moreover, I am sceptical about

about the ability of even governments to afford the investment steps. After all there is a limit to the amount of taxation and marginal surplus that each generation can bear.

We can be sure that we are going to suffer a significant drop in energy production in this country in the immediate future—indeed this has already occurred. And, whether we consider the proven technologies of coal, natural gas or oil, or the unproven technologies of nuclear energy (fission or fusion), solar, wind, tidal, or geothermal, there will be no escape from the shortfall for the rest of the century. My picture is that over the next 10 years we shall decline steadily to about 70 per cent of the present level of energy production and then, with slight additions of new coal, and larger additions of North Sea oil, we might be lucky enough to hold steady and keep it there for another 20 or 30 years.

When these considerations are coupled with the imminent shortages of other resources, particularly metals, then we cannot avoid the conclusion that we are now facing the imminent prospect of economic downturn. How we can avoid this downturn sinking further into economic catastrophe is something I shall deal with later on in this article. But for the moment I want to hypothesise that we will happily avoid chaos in the next 20 or 30 years and I now want to justify my suggestion that we will be in a sort of Dark Age situation for 200-300 years.

Three hundred years of transition

In this period of transition, or Dark Age, it would be as well to bear in mind that the medieval Dark Age was not at all a period of gloom. A great deal of exciting artistic and social development took place. It was more like a period of consolidation, of *reculer pour mieux sauter*; and this is how I see our imminent Dark Age.

There are two basic arguments which support my case for a Dark Age, or long term transition to a sustainable society. One is population dynamics (and ultimate population policy) and the other is the longevity of UK coal resources.

1. **Population.** As you will all know, the growth of population follows the familiar exponential or compound interest curve. For a long while, for hundreds or thousands of years, total world population moved upwards only very slowly. Then gradually it began to move upwards more quickly, then very quickly as medical services spread round the world, and then, in recent times, it is shooting up almost vertically so that we are doubling every 30 years, soon every 20 years, and so on.

In this country the latest projections show a growth of population from 56 to about 62 million between 1974 and 2000. Even if we were to equalise birth and death rates now we should not be far from 62 million by 2000 because we shall have 12 per cent more women in the 15-30 age range in the next 15 years. We should need a further 12 per cent drop in fertility

just to counterbalance that growth. All told, even if we are able to stabilise population in this country—as I believe we will—it will take 50 or 60 years to achieve and it is likely to be anywhere between our present number and 70 million.

At the moment we grow only about 60 per cent of our own food. Imports account for the rest but these will indubitably dry up completely in the next decade or two because almost every country is at maximum food production levels and populations are rising everywhere. Even with a quasi-vegetarian diet and food rationing (due for 1975?) there is likely to be starvation in the guise of hypothermia and disease.

We would all agree that the ultimate population should therefore be less than it is now. It might have to be 50 or 40 or 30 million or even less but the point to note here is that it doesn't really matter what figure we choose at the present time because our immediate task is to stabilise and that will be difficult enough. Moreover, in order to produce a downturn from then on, the population level will tip over only very slowly unless draconian measures are instituted and this does not seem feasible to me.

Therefore the stabilisation period and the start of a definite downturn will take something like 150 years, to be on the safe side. From then onwards, once less-than-replacement birth rates become the rule, the population curve would decline increasingly steeply. It is at the beginning of that decline that ultimate population must be considered very carefully because if the decline is too steep then we shall have considerable problems of a working age group supporting a large proportion of old people. So it would be sensible of our descendants to take the decline pretty carefully.

For those who fear that a declining population might drop to nothing it is useful to mention that even a steeply declining population can be arrested almost instantly. After all, it only takes 9 months to produce a baby. Two or three years' patriotic work by fertile parents could double a population. But, of course, I am being slightly flippant because this would once again produce a situation of over-dependence on the working population—this time of old and young.

All told, a sensible population policy will take something like 250 years to achieve—150 years or so of stabilisation and the beginning of downturn, and 100 years, say, of gentle progress to the desired target.

2. **Indigenous Energy resources.** Indigenous natural gas resources are likely to be spent within 20 years and North Sea oil within 50, even if we are fairly restrained. Nuclear power will no doubt continue for many years, but when every consideration is taken into account, particularly the high investments and the permanent costs of waste maintenance, it is more than likely that the industry will not account for much more than at present: let us say about 10 to 15 per cent of our total electrical production. Other technologies, particularly wind, will probably supply a

proportion to the grid; and we shall have some domestic assistance in the form of solar heating. But the bulk of energy production will be supplied by coal for a long, long time to come.

It is mainly guesswork just how much coal resources there are in this country. At the moment there are about 75 years' supply at present rates of production and probably 150 if slightly less economic coal fields are considered. If mining a little further out under the sea is undertaken reserves would probably be stretched to about 200 years. It is said that there are also substantial reserves of coal under the North Sea (where the Yorkshire coal field dips down) amounting to at least five times our present resources. But this is extremely deep coal indeed. It is possible that this could be gasified *in situ* and the product piped off as natural gas. This would be phenomenally expensive and, in my opinion, the economic infrastructure existing in, say, 50 years' time, could not afford the investments required. It is probably much more likely that we would nibble at the edges by normal mining in very extensive workings. Ventilation could be assisted by sea-bed air-extraction units.

It seems realistic to hope that we should be able to open up a sufficient number of new coal mines (most of our present ones are 70 years old) that would enable us to reach a level of energy production that would sustain something like a 70 per cent GNP (of say, the 1973 level) from the grid when Middle East oil imports have become vanishingly small (190-2000?) and North Sea oil is also well on the downturn.

All this suggests, therefore, a period of about 300 or even 400 years of coal before it becomes completely uneconomic to mine or beyond our capabilities.

Looking at coal, population and food production synoptically, then, what happens at the end of the Dark Age? By then we should easily have reduced our population down to a desired and sustainable level and our descendants will be getting down to the bottom of the coal barrel. They will have been expecting this for a few decades and ought, by then, to know in some detail how they are to manage from then onwards. It seems to me that a vigorous and civilised culture will need four broad inputs. These are food production, energy production, organic materials production, non-organic materials production.

1. **Food production.** As nitrogenous fertilisers will no longer be obtainable by manufacture from fossil fuel sources and cannot be supplied from electricity-only technologies (fission, fusion, wind, solar, geothermal — even if they exist then) food production will have to be completely organic (with perhaps slight inputs of trace metals and phosphate fertilisers (see below)).

2. **Energy production.** All the alternative energy technologies that have been proposed are characterised by extremely high capital costs. If we experience an economic downturn we shall probably not ever again be able to afford new technologies of this nature as the predominant part of an energy production industry. I see such sophisticated technologies as being a small part, though a useful one. The bulk of our energy needs would have to be met by hydrolysis and fermentation of vegetation and we should expect by then a largish petrochemical industry based on this source and not on oil as now. The land required for this would, of course, compete with agricultural land and so this would have an effect on population policy too. Incidentally, it might be opportune to mention at this point that I would hope that our descendants will have the good sense to leave large parts of our countryside as wilderness as an environmental bank.

3. **Organic materials production.** Drugs, plastics (if needed!), fibres and other organic materials which at present derive from fossil fuels will have to be derived from a vegetation-based petrochemical industry as above. None of these could be supplied from exotic electricity-only technologies.

4. **Non-organic materials production.** A sustainable population would still need a variety of metals and other materials in order to keep a moderate amount of high technology going. Some of these are virtually inexhaustible and others could be recycled (e.g. phosphates from estuary dredging, metals from electrolysis of sea water).

To summarise this section I would suggest that if our population is low enough we ought to have the basis for a sustainable civilisation at the end of the Dark Age. Most of the above technologies would be loops within natural ecological processes; otherwise I think we could afford a slight amount of non-ecological industry (after all, not all natural processes are ecological, e.g. volcanoes and other geological processes). I foresee that such a population, although it would undoubtedly be much more labour-intensive than now, would also be able to afford a moderate amount of high technology. For example, I can visualise a sophisticated electronic communication system available for all for use in education, entertainment, government and access to cultural diversity. I certainly do not see ourselves vegetating, even though our life-styles will have to be very economical in the use of resources.

Although my post-Dark Age scenario will undoubtedly prove to be simplistic and wrong in many ways I think it is psychologically necessary to be able to conceive of a long term, sustainable future. Without the vision that a long term future is practicable, then the motivation to get through the next 20 or 30 years would be lacking.

Short term developments

After the transitional and very long term picture I now want to turn to short term developments. Excluding the possibility of runaway inflation producing a deep economic depression this year—and this is by no means an impossibility—I think we shall probably return to the situation which obtained before the recent (October 1971) attempt at super-growth by Edward Heath. What we were experiencing then, and which had been developing from the mid-sixties, was a gradual rise in structural unemployment. Early in the Wilson Government the figure of 250,000 was just about tolerable because of this there were about 100,000 unemployables and somewhat less than this number were changing jobs anyway. This was about as good as one could get in a growth economy. Gradually, however, under both Labour and Tory administrations the 250,000 figure rose to something like 750,000 because, although the rate of growth was about the same, there was increasing use of automation. We were liable to have reached the 1 million mark quite easily by the end of 1971 when Heath instituted super-growth by deficit budgeting—or, in other words, by printing about 30 per cent more pound notes all through 1972 and 1973. In this way he was able to stimulate domestic consumption and to disguise the underlying increase in structural unemployment, the sort of tendency that is caused by large capital investments in new industrial projects. (For example, the new potash mine that ICI is building in Yorkshire requires something like £60,000 per job and the investment at the new iron-ore terminal at Huntingdon on the Clyde is of the order of £130,000 per job!)

Now, however, checked by heavy trade deficits, Arab-imposed oil quotas and rising commodity prices of everything we buy from abroad, we are back to the pre-October 1971 position with a vengeance. I therefore suspect that very soon we shall return to the pre-existing unemployment figure too—and probably somewhat more. From now on I cannot see how we can possibly avoid a steady increase in unemployment whatever Government we have. The consumer boom will have burst, a large number of public projects have already been axed and there must be a great deal more to follow such as the termination of Concorde, a decline in the car industry and many other consumer goods industries. I would imagine that even with the best possible management of the economy and with the fastest possible expansion of coal mining and the railways (producing, let us say, 100,000 jobs over 10 years, which is peanuts), we cannot possibly avoid a steady rise in unemployment by perhaps 200,000 to 300,000 jobs per year. In a very few years from now we shall be approaching unemployment levels of the worst period of the depression of the 1930s.

However, I feel there are going to be significant differences between the 1930s and the 1970s. Despite the fact that recent affluence is likely to have produced a much more militant unemployed worker than his counterpart of the 30s he will be duped, at least for a while, by a barrage of promises from the political parties, the TUC, the CBI, television and newspapers (desperate for growth-derived advertising revenue!) that an economic upturn is round the corner. It will be some time before the penny drops that high unemployment will be here to stay.

The depression of the 1930s produced a great divide between the north and the south of the country. The manufacturing industries in the north of England and south Wales were badly affected. Whole regions were devastated by a blight from which they did not recover until the second world war, and some did not even then. Many people in the south of England did not experience it at all and could hardly have been aware that a depression existed except from their newspapers (tucked away on inside pages) or unless they happened to be in the vicinity of the Savoy Hotel when the Jarrow Marchers were ushered round the back for an eggs and bacon breakfast. The reason for this is that southerners largely derived their livelihoods from the City of London—from international finance, shipping, insurance, banking, foreign investments and so on. This geographical disparity will be much less characteristic of the 70s. Unemployment is likely to be much more uniform because a great number of consumer industries are now found in the midlands and south. We are therefore much less likely to see powerful political impetuses for change from regional concentrations of high unemployment as happened previously.

Another important difference between the 30s and 70s is that in the recent decade we have seen the great growth of large business corporations. Instead of there being a multiplicity of small and medium sized enterprises, a much larger sector of the economy is now dominated by large centralised organisations with subsidiary manufacturing units. In the 30s the newly unemployed tended to be flaked off horizontally from the bottom of industry, leaving the more skilled still in work. But the pattern of the 70s will be quite different and we shall see complete units closed—the American pattern of redundancy. Instead of horizontal unemployment we shall see vertical slices being taken out of employment and affecting a wide variety of skills and expertise from the 'man on the brush' to managing directors. The composition of the unemployed in the future will therefore be much more varied than in the past and among them are likely to contain some very talented people. (This point is highly important and will be picked up in the last section. We had a slight foretaste of this in the summer of 1971 when there were estimated to be 40,000 business executives out of work in the country. Undoubtedly some of these were

uffers but there must have been many of considerable drive and experience. Anyway, this 'problem' evaporated when super-growth started in the autumn.)

Another difference which will be of significance is that the motor car has meant that, in the 60s and 70s, employees at a particular working place are likely to have homes anywhere in a large area around. Workmates will not be living door-to-door and near their place of work, as they did in the 20s and 30s. Unemployed people today, therefore, will tend to be neutralised in any potentially unruly effects by living between neighbours who are still at work.

In the early years of the unemployment that is coming the effects will not be obtrusive. Because of the mixture of classes affected and geographical separation I think there is unlikely to be widespread political trouble. There may well be some ugly scenes as particularly large factories are closed down but these are most unlikely to be more than temporary events. There will be large sectors of industry which are never going to be affected as far as one can see, such as coal mining, oil extraction and equipment construction, metalliferous mining, the railways, electricity generation, agriculture and so on. And, of course, there are large numbers of people employed in local and national government service, health and education who, for a number of years at least, will act as an economic buffer.

Generally, I believe that those in employment—in safe industries and essential services—will tend to close ranks against the unemployed. emphatically I do not believe that we shall be entering a revolutionary situation along class lines which, according to some accounts, came close to happening in the 1930s. We can see in Northern Ireland at the present time just how far civil 'breakdown' and terrorism can go and still society hangs together, simply for the reason that damage to factories would not be tolerated by the working population. The same will apply in our coming situation even if we had sporadic sabotage. I have little doubt that political agitators will get to work with great vigour in order to get the unemployed to campaign on the streets but, unsupported by the working population at large, these attempts will not come to much. Another example from my own city is instructive too. In 1971 there were 18,000 skilled men unemployed in Coventry and there were calls from shop stewards in some local factories to cut down on overtime working—particularly at weekends—until the unemployed could be absorbed. After a nominal week or two of overtime reduction the workers were back at previous overtime levels and the unemployed were still unemployed. If the unemployment had persisted it was, once again, terminated by the super-growth phase from late '71) no doubt we would have had further bouts of crocodile tears. It is unfortunate, but it must be admitted that the high ideals of early socialism have long since gone and those in employment in the future are going to

be quite as unsympathetic to work-sharing as were the Guilds of the Middle Ages or the present day restrictive practices of professional bodies of solicitors, doctors, architects, chartered surveyors, systems analysts, and so on.

This analysis leads to some brief speculations about developments within the political parties, and particularly the Labour Party for which the writing appears to be on the wall. Over the next few years, as unemployment mounts, the TUC is likely to form closer links with the CBI. Over the last few years there is increasing evidence that their viewpoints are coming closer together. Paradoxically, therefore, we are likely to see a tendency for the traditional left wing of the Labour Party—those close to the unions—will swing over to the Conservative side for reason of job protection, possibly leaving radical politics in the hands of so-called right wing Labour MPs together perhaps with some Liberals and other new parties.

Looking for the gap

The process of re-polarisation and change within the political system and of associated constitutional change have their own momentum and time scale. While these developments are interesting and, perhaps, in the longer term future absolutely essential in the interests of a democratic sustainable society, they are likely to lag behind economic and social developments in the country at large. This parallels my statements about pressure groups at the beginning of this article.

The analysis of the previous sections suggests that perhaps for several years British society will hold together despite great strains put upon it, such as sizable unemployment and food shortages. But it is asking for the impossible for this to continue for a very long time. As taxation relentlessly increases there will come a stage when those in employment are going to say "enough is enough". The Government, of whatever political hue, is then going to be tempted to reduce expenditure by redundancies in public services. It is at this stage, by cutting into total consumer demand, that we shall be in great danger of spiralling further downwards—and this time it could well be uncontrollable.

We therefore have to look for the gap, for the period of economic and social fluidity when things are becoming serious—but not too serious; when unemployment is growing—but not mounting too quickly. It is in this historical period that constructive change could occur. This opportunity may not last long. We may only be allowed ten years or even only five; but it is during this period that new institutions must evolve as an additional buffer against economic regression.

A brand new movement

Many writers associated with our movement are pessimistic about the future because they cannot identify powerful socio-economic groups which will benefit from likely events in the future. Looking back, say, to the Middle Ages and from then to the present, these writers notice that prominent new economic forces irresistibly take civilisation forward, either peacefully or violently. So these writers, not seeing any similarly prominent groupings today, and bemused by the fact that we face a shortfall of resources, cannot see from whence a new force can come. I consider this sort of viewpoint to be restrictive and producing needless pessimism.

In order to supply a positive analysis I must attempt to describe mankind's progress hitherto (but very briefly!) In the earliest days of civilisation man took huge steps forwards when single discoveries were made that facilitated his use of resources: the wheel, the lever, the digestibility of *cooked* cereals, the spinning of fibres, etc. Then we had more complex discoveries, needing groups of men and generations to perfect: the smelting and refining of metals, sea navigation and trade, the mechanisation of agriculture, etc.

The next step forward involved the commercialisation of agriculture. In this country this first took the form of sheep farming and enclosures. This not only involved discoveries about the economics of having sheep on the land instead of peasants but it also needed complex relationships between the aristocracy, together with their large landed tenantry, and the wool merchants of the towns. (It also involved cutting off a king's head because he was, at the time, a barrier to their progress. This was quite a feat of political organisation!)

From then we move imperceptibly into full-scale industrialisation involving even more complex groupings of men able to supply capital for new discoveries and access to new resources. In recent years this has developed into the full flowering of the large transnational corporation. These entities involve even wider conjunctions of talent, discoveries, capital, resources, markets, methods of communication, etc.

John K. Galbraith summarises all this by saying that power in modern society has successively resided in land, capital (in the early days of the industrial revolution) and organisation (today). I should like to adopt a slightly different viewpoint by generalising backwards to the first lone discoverer (whoever he was and whatever he discovered) and forwards to society in the immediate future beyond the zenith (as I believe it is) of the modern international corporation. There appear to be two main processes at work throughout the total history of man. These are: 1. Wider access to, or more efficient use of, planetary resources; 2. Wider

and evermore complex groupings of people of a variety of talent. These, I would suggest, are the criteria we should use in assessing future options.

In brief, I am saying that an historical viewpoint, looking backwards only a few hundred years and not the totality of civilised man, and seeing only one or two obvious and easily describable examples of contemporary-looking socio-economic forces, leads to a blinkered idea of what is possible in the future. In many ways the large institutions and commercial organisations seem at the end of their tether. Do we have to look for even more powerful economic successors to these? In doing so I believe that we can fall into the same trap as those growthists who imagine that the world's resources are infinitely expansive.

Now I believe that the *beginnings* of an answer is lying under our noses and this is the commune movement. But before you dismiss this as going from the sublime to the ridiculous I should like to test the characteristics of this movement against the two criteria I have suggested above: 1. The morality of the commune movement is based largely on the more economical use of resources; 2. The commune movement transcends national, cultural and social boundaries to a remarkable degree and evidences, if not a high degree of international co-operation as yet, but certainly a great deal of empathy and shared values between a large number of talented people.

We should not judge the potentiality of a new social form by the confused and experimental nature of the movement today. For many years I have been sceptical about communes: to me they smacked of hippie values and unrealistic rural arcadias. But I have become convinced that here we have something very significant indeed. I feel that it would be very foolish of us to disregard this development. Against the odds, and despite the fact that the lifespan of the average commune is short (but then, many 'straight' businesses fail too), there are about 3,000 in the US, at least 100 in this country and many hundreds more in Europe and Japan. An interesting point to note is that self-innovating communes are products of advanced cultures and not sleepy, backward ones.

If you read the *Directory of Alternative Work* and *In The Making*, a directory of proposed projects in this country, you cannot help but be impressed by the high intelligence and level of awareness of the leading people in the movement.

One of the developments I have noticed recently is that self-help communities are tending to move from the countryside into towns. While there are several exciting and well-run enterprises in rural areas such as the Kingsway Community in Cornwall, the Biotechnic Research and Design group in Montgomeryshire, the Low Impact Technology Group in Cornwall, the Ecological Research Community in Ireland, and the Society for Environmental Improvement Centre near Aberystwyth there

appears to be a growing interest in founding projects within normal urban communities. As examples of the latter I can mention the Industrial Development Project in Liverpool, the Radtech group in Sheffield, the Rath Arts Workshop (who also go in for house conversion and improvements), Inter Action in London (who include video films in their activities), East Few Days in Leicester (shoemaking) and the Galdor Centre inurbation (who have their own, albeit antique, ICT computer) among many others. These give a flavour of community projects in this country. You will have noticed too that these are not 'other-worldly' communities r anti-technology *per se* (though they are highly selective).

Almost all of these communes see themselves as being alternatives to normal society. I suppose this is natural when they look out from the inside. But looking in, or on, from the outside I do not see them as alternatives at all. I see them as interesting developments within society and *co-existing* with people living normal lives and having normal jobs. The rift from the countryside to the towns is further proof to me that communes are fast integrating into society and are not alternatives to it: they are oppositional and not oppositional.

Now these sorts of groupings are going to be very effective in combating declining standard of living. Anybody who is out of work, but a member of an urban commune, is going to be impressively better off than the mass of the unemployed. It is here that I believe we have a ledge on which to pivot for a while. As unemployment mounts in the years to come we are going to have a pretty large minority of talented and experienced people of all ages out of work—the sort who would otherwise be quickly re-absorbed in a growth economy. Perhaps they are already disaffected with their present places of work but, while they have jobs, they are not going to put their noses out of joint. But, if they have paid any attention at all to the environmental and resources debate of recent years, they are going to realise that new employment is not necessarily going to come their way. I believe, in fact, that when unemployment reaches a threshold level we are going to see an explosive increase in urban living experiments. F a communal nature—for sheer economic survival. Just imagine what few intelligent and skilled men could do together, given a little capital. They could start to share cars, newspapers, books, laundry facilities, television sets, buy food co-operatively, form maintenance and repair crews, perhaps sell a house or two and splitting the remaining ones into communes or self-contained apartments and buy agricultural land on the outskirts of the city. On unemployment pay they might live very well and even rival the living standards of normal nuclear households. Indeed, I can well see the possibility of colleagues of theirs still in work joining such urban groupings and putting a proportion of their income in as a form of insurance against the day when *they* might be unemployed.

In this way men of talent, hitherto taken out of local communities by the educational rake of the last two decades and placed in well-paid positions in ivory towers in industry and other institutions, are going to be returned to the community where they will be available for the leadership of social change.

I am suggesting that the young are already showing the way and that they will be followed by maturer and more experienced individuals who are going to transform what are often idealistic experiments into social realities. This new breed is also going to be well versed in the operation of institutional levers in order to obtain facilities which are legal but difficult to get.

If, therefore, there is sufficient time in the period of change for these groups to show the way for the unemployed population at large then they will not only be survivors but survivalists as I conceive the term. If this can be established as a substantial (though still a minority) sector of the economy, then the net effect will serve to keep up consumer demand and be an additional buffer against economic downturn. Such a movement would be the prototype of the transitional society as I see it. In time, too, we would hope that this sector of the economy would develop its own political voice and would begin to call, far better than we can now, for financial support for larger scale and more permanent environmental employment schemes such as canal and railway restoration, reafforestation, local water and sewage schemes, rebuilding of derelict urban and industrial areas, new forms of agriculture and ecological restoration.

So what are we to do now? I think we must bear in mind that the developments I have been talking about in this section could start to happen at almost any time depending on national and international events; they could easily start this year, for example. I would therefore like to suggest that those of us who feel deeply about the future should form ourselves into a definite movement, as a sort of reception centre for the people who will become active as circumstances determine. I am not suggesting that each one of us should join or form a commune—far from it: some of us are probably far too set in our ways. But let us look upon these sorts of movements with a sympathetic eye, ready to help when required. I see ourselves as intermediaries and facilitators between the post-war society of affluence in which most of us are extremely comfortable, and the new society that must come if civilisation remains intact.

Even with such a hard-to-define purpose, and even if we do not formally associate ourselves under a title and with a book of rules, I feel we have to regard ourselves as a quite definite movement with the strong belief that we are entering a new historical epoch and that we have responsibilities to perform in seeing that the new society evolves as painlessly as possible. As individuals we can remain as members of those pressure

groups which take our fancy but I feel that a corporate identity and purpose is required too.

In suggesting a brand new movement I have only one rule to offer. To me this appears obligatory and has worked for all successful transforming movements. It is that you seek out those who think similarly and *meet together regularly* in a spirit of mutual support. We must talk together and think together regularly for the sake of ourselves as individuals who are often lonely and perplexed, and for mutual clarification of the issues of the future. We need not get ourselves into a neurotic tizz about necessarily having to *do* anything at the moment. Let us simply invest our time and personalities in developing a corporate purpose, enrolling new colleagues and forming new groups. All in good time we will develop a style and ambience of our own and discover what our supportive role should be. Meet together and meet often.

Agriculture and the Use of the Earth

Margaret Laws Smith

In a previous issue (*Towards Survival* 18) I tried to suggest lines on which we should start thinking about the organisation we might set up for the guardianship of the scarce natural resources on which human survival depends, to protect them from short term exploitation, particularly exploitation by political leaders and parties whose own success in life might depend on short term results and not long term morality. I started with minerals, and now want to go on to vegetative resources in their widest sense including the whole physical environment of which they are a part. I suggested that we have to devise organisations by which human beings could only have access to scarce resources according to a rule of law, a law based on the morality of survival, and not according to the will of individuals. In the regulation of human affairs, as we have seen in the development of the British Constitution, it is law that is the protection against tyranny. We have developed it to protect men against the overbearing authority of one man or of groups of men. Now we have to develop law to govern the use of scarce resources so that they are used in accordance with what is felt to be right in order that life shall go on, and not according to individual caprice, no matter whose.

Minerals arising from geological deposits are fixed in quantity and our concern must be to determine how fast they are to be used *up*. Agriculture including forestry is concerned with the use and maintenance of the soil and the surface of the earth, with the water table and the climate which

depend on what is grown and the balance kept between forestry and agriculture. Thus all these decisions are concerned with how the earth is used.

The basis of the morality of the use of land is that we must never take out more than we put back. The creation of a dust bowl is probably the worst, the absolutely worst, crime that men can commit. It is a crime against the earth on which all life depends, and it is a crime against other human beings, both those alive now and those to be born in the future. It is a crime which is still being committed but for which we cannot condemn anyone because the responsibility for the use of land is not yet brought within the control of the law, and the laws to protect land against this sort of exploitation have not been devised, and they have not been devised because not enough of us feel strongly enough that short term agricultural practice is basically and fundamentally wrong.

From the end of the middle ages until the beginning of this century agriculture in this country was largely dominated by the great landlords, who leased farms to farmers who employed labourers to work them. The landlord system meant that there was some care for the maintenance of the future value of the land and hence its fertility because the position and prestige of the great landholders lay in their being at the head of families whose power was expected to endure into the future as it looked back into the past. But during this century this control on farming for purely short term ends has diminished. From the agricultural depression of 1872 when crops from the continental landmasses newly opened up by the railways started to flood into this country and depress prices the economic importance of landholding started to decline. The high rates of 20th century death duties lead to the breaking up of estates and created numerous new independent farmers owning their own land, while two world wars led to a placing of stress on immediate output. These three factors have I think led to an increase in short term views about output and profit in many quarters.

The first approach to the matter of land and survival is quite simple. As soon as we feel sufficiently deeply that we all depend on the absolutely limited area of land for our survival the sense will emerge that the land belongs to us all as of right. That is that it is a communal possession and that legally it must belong to us all collectively, and that anyone who is using it is only using it as a trustee on behalf of the community, present and future. Thus there could arise a cry for the nationalisation of the land. This, though it might be politically popular in some quarters, or at any rate evidence that the party raising the cry "meant business" in some sort of socialist way, could be useless and even disastrous if it came before we have worked out the sort of organisation for the direction of the use of the land by which the essential morality of its use could be put into effect.

Any act vesting the ownership of the land in the community should set

forth the reasons, based on the principles of survival, as to why this was being done, and lay down the basic principles on which land is to be used in order to conserve fertility, the water table and climate. These are all technical matters for agriculturalists, foresters and ecologists. As far as agriculture is concerned I imagine that those who formulate it would be concerned with things like fertilisation and the right use of fertilisers, the maintenance, creation or destruction of hedges and trees as windbreaks to prevent soil erosion instead of the restriction of the same in the interests of larger acreage and crops for present use, and so on. The problem here is how the basic principles of a right-use-of-the-earth morality can be embodied in law so as to control those who direct the use of land, and protect it against short term exploitation, without throttling initiative and the development of new methods.

If the ownership of the land is vested in the community it means that its earnings belong to the community. The earnings of land are the excess of the value of the products grown and sold over and above the costs of seeds, equipment, fertilisers, etc., and the remuneration of labour, including that of the farmer or management, at rates which labour of similar intelligence, ability and character could earn elsewhere. That is rent, and it is the rents which should accrue to the community that owns the land. Thus whoever farms the land must do it as a lessee of paying a rent based on the judgement of the lessors of the land's earning ability, even if the occupant or farmer is the previous owner who has remained in occupation.

It is in the drawing up of the terms of the lease that control can be exercised over the principles on which it is to be farmed, with penalties, including the final penalty of eviction if the terms are disregarded.

Therefore whatever organisation is devised for controlling the use of land it must provide for the following :-

- (1) It must determine who is to use or lease the land and on what terms it is to be used so that its use is in accordance with the use-of-the-earth morality laid down by law.
- (2) It must provide for checking for wrong use, the provision of penalties for wrong use, and the enforcement of penalties.
- (3) It must provide for appeal against this judgement where lessees feel they have been wrongly judged and dealt with.

Under the rule of the landlord he or his steward determined the first and the second, and there was little provision for the third beyond the eating of a considerable amount of humble pie.

Legal ownership might be vested in a National Land Agency in whose name leases would be granted and who would receive rents for transmission to the national exchequer. But in the actual granting of leases special knowledge of local conditions is of great importance, so that it seems desirable that such an agency should delegate its rights to do this

to local committees. Local committees of farmers and farm workers would have the necessary specific knowledge to perform the first two of the three functions stated above. We are all extremely susceptible whether we admit it or not to the judgement of our peers: that is, to the judgement passed on our work in the minds of those doing the same job who are in a position to assess our own performance. This is true from the housewife the whiteness of whose washing is judged by Mrs. Next-door-to-the-University Professor I once knew very well who always asked "What will our External Examiner say to that?" about any proposed change in standards or syllabus. Farming achievement is always exposed to the appraisal of the neighbourhood.

But if the leasing and supervision necessary to the renewal of leases is to be in the hands of those responsible for doing the job appeal against their decisions should be possible to some authority outside. Thus the land agency could provide its own expert inspectors before whom such complaints could be laid.

But who are to be the lessors or farmers? For the sake of the land itself surely there should be no sudden disturbance or dispossession. Experience and local knowledge count enormously. All who are doing a good job in compliance with survivalist principles of the right use of the land should remain undisturbed in their occupancy but liable for rent.

Socialist theories and communist practise have usually held that considerable changes of farm organisation were essential such as the formation of collective farms. In discussing the changes in industry that might be expected to arise under stable economic conditions without expansion of demand I have suggested that the work of management in industry will be considerably curtailed because it is so largely concerned with dealing with the emergencies caused by changing conditions. If you are going to use existing equipment for just as long as it can be made to hold together to produce the same quantity of the same things year after year the whole business becomes quite routine, and management itself becomes a matter of routine co-ordination which does not demand great flair or outstanding skills or ability.

But farming is different. Demand for food is steady. Demand for home grown food will become steadier as the increase in world demand and the rise in import prices forms as it must a barrier to sudden floods of cheap imports of this and that. The biggest source of constant change to which the farmer must be continually on the alert to adapt comes from the British weather. Someone has always to bear the responsibility of changing plans as soon as the weather vane moves or the barometer alters. Management, whoever performs that function, must always be of great importance in farming.

Communist theory and its practice in Russia has always been opposed to the growth of the small farmer as a source of petit bourgeois conservatism which would hamper the growth of a high standard of living for

the urban workers. Farming practice has continuously been subject to considerable arbitrary interference from distant bureaucrafts in the interests of changes in a national economic policy bent on technological growth. The disastrous results of this are becoming manifest by food shortages and reports suggesting that farm workers no longer care about the crops or the land; about what it yields today or will be able to yield tomorrow. (*The Times*, 1 August 1973).

Whatever the outcome of our efforts to maintain our sources of energy the food supply is going to be of greater and greater weight in our survival economies. Our policy for the land will have to recognise that although the land as the source of life for all is the possession of all, it can only yield its best and remain in good heart by the close and continued total involvement of the men and women who work on it and with it. We must recognise too that that involvement is extremely arduous and requires efforts which are considerably greater than those demanded by a great range of indoor jobs. Work with stock goes on in all weather. Work with crops has to catch the right weather as it comes. Thus when I said that the rent of land is the surplus after management and labour have been paid at rates equal to what similar intelligence, strength and energy could earn elsewhere, in computing what is fair, full allowance must be made for the high degree of devotion and attention the work will always require under all conditions.

Early Eithin Daze

Philip Brachi

Ghost of roasted Seth crows a half-cock doodle-doo. Beginning with a backlit Corndon Hill, it's a timeless day at Eithin-y-Gaer.

* * *

"You can't live on a view", they said. But, practice before theory; it depends upon the view and the viewer. So let us see.

Have a gander at Horace and family, being early loosed by John; now fuelled with blighted spuds and fired for a new day's loathing of all within range of honking rage. Downie soft, but hissing hatred (pure white as the driven detergent which we have not entirely left behind), Horace, Cynthia and Christmas Dinner are the harmless foil for a love gently growing among us here at Eithin.

We are eight adult plus three children, and many, many visitors. With a 750 cubic-metre home to build ourselves since April '73, the groovy soft technology experiments are gathering dust yet awhile. Ours is a social, ethical and spiritual adventure, as well as a scientific one; for the moment, and beyond, the former takes precedence. In the happily blurred areas of work and play Eithin rises.

Morning sounds assail the ear: twin, three, four hammers rapping patterned noise and random; or are there eight, with that crisp echo from the rowan-jewel wood? The notes rise as nails shorten and the structure tightens. A timber-merchant, reborn as Mike, laments: "It's only held together with nails!" Movement, wheelbarrows' squeak, oaths, sawing; a pause, and a cry of "Only perfect!"

Brick upon perfect brick, caneldar-like, Philip's chimney curls too lazily skywards. Gargoyle, from high betwixt the bricks, surveys the day's visitors arriving. (Perhaps we shall install a lightning-conductor—for lightning conducted tours.) John, "the one with the *distinguished* beard", takes time off from turning us on to 240v.AC, to play Robin-Clarke-for-the-Day. Authentic Robin capers blithely on the 10-metre solar-roof ridge; where his his vertigo?

The visiting writer, family in tow, seems happy working through his list of 37 questions. To be back in NW3 by nightfall he will leave at 4 p.m., glad he can tick us off. He has missed the point: what does it feel like to be here? Why do other visitors come for a week, stay a month unpaid and sleeping rough, putting in twice the honest hours that they'd sell for £50 p.w. in the city? The best of visitors are often unannounced. Remember Bob, penniless but packing a shining spade, who sawed and danced, sang and dug the kitchen garden as has no-one before or since. Others have courage in their coming, opening themselves to us, and us to them sometimes. Perhaps half the house was built by them; and half our spirit too.

The bell is rung for lunch; outside, outside, and in good measure home produced. Trestle tables take the load, quivering as Bambi underneath scratches her emerging horns and eats plasterboard. The sun is high. On home-made wine and work, so are we.

Relaxing, quietish, when a car in the lane signals folk approaching. Ducks and geese cry alarm; is it nine Cambridge students, pregnant and with dogs, wonders Maria. No, 'tis the media. Nationwide is easily repulsed. The Experimenters linger longer, promising that if we'll just re-enact those spontaneous scenes—as when Billy finally made Bambi; or our 5-hour marathon about where to site the stairs—they'll faithfully convey to the people our notions on how to live without fakin' it. Peter from the Sundry Trends col. supp. gets nearest (with his Retsina wine), but fails to adjust his mind-set to what is all about him.

"Where's this soft technology, then?" Well, the heat-pump (13 kilowatt out for 4 kilowatts in, we hope) lies in Broody's barn; a double Savonius

rotor in the dining room. The 56 square-metres of aluminium solar roof went up and on in a memorable communal morning, but won't be glassed or polythened, let alone yielding 50 kilowatts of water heating, until next summer's high noons. But we can offer joinery, a soft technology hardly changed for centuries. In the workshop Johanne discovers this, and herself in the timeless process. It takes four days to make a fine door (and just a long for one that looks like an Escher drawing!) Eithin has 32 new doors.

Maria is at home in her afternoon garden, hoeing to and fro the garlic; soon it will be loveably plaited by Janine, after her brief sojourn in the Outside World, reporting back the bombs and the metropolitan mood.

A quarter-mile below the garden Kevin Atom and the Nuclear Family are weekendening in their motorway-borne, outbid-the-locals, P'aid-bating second home. He, but not we, got an improvement grant: it seems we're not a "conventional dwelling house". Still, for about £1000 per head, we shall be occupying and powering, in no mean style, some twenty souls (to be doubled by a later project) on just 43 acres of Min of Ag Grade IV Welsh hillside. Most local people have been warmly encouraging, and often of great help. Where would we be without neighbour Frank, teaching us to farm as though we would live a thousand years, to live as though we would die tomorrow? Here he is on his daily visit, in time for a cup of tea.

Smells of fresh-baked bread; and the sound of Little Robin freshly back from school, re-entering his private world of Blue Vans, Land Rovers and trips to the Blue Bell. Above us, buzzards—a pair and their baby—circle, mewing, soaring; flight shaming the low-level RAF, for whom we are considering a very big crossbow.

Tea—and scant sympathy for our antipodean architect Peter B, who yells "Farr out!" balanced one-legged on the unsecured gable-end; then cuts his finger opening the first-aid tin for another. "How long before you grow tea in the two-storey conservatory?" Hmmm . . . these absolutist day-trippers!

A dusky hour or two in a three-man team sawing, chopping 18-inch winter fuel reminds us that what the eco-freaks are calling "alternative technology" is pretty much like what the straights call "labouring"; sub-zero, snow falling, the light is poor. Yet there is absolutely nowhere we would rather be. Tomorrow, if the day is fine, we'll maybe all walk Offa's Dyke to that friendly pub; five days off declared from August to December is not a lot.

Across the yard teeny-bopper urban guests tweak the teats of oh-so-patient Bambi. Our own Popsy and Beeb will be the next to learn. (No fridge for the milk though, for these devices are fated here. Yet we hope to heat our home that way!)

And later, supper, round the sycamore table ten by five. Mike, with groaning bawd, descends o'erfast from precarious noggin-bashing to join join us. Good food eaten together is one of the better things in life; and elderflower champagne is one of the best.

Jotul and Sofono are living fires beyond the NCB's imagining: logs for heat and baking, seen by some through eyes of fire. Bogs curls by the hearth. The smell of woodsmoke everywhere, overlaid too often by John's very own Eithin Gold. (It's tobacco, honestly!)

"But what do you do in the evenings?"; they always ask. We talk or embroider long underpants; we read or scrape fleeces; or sing with Peter's music; sometimes we laugh a long while. Rural idiocy already perhaps, born of a joy and slow certainty: fears, threats, facades receding; security in a sense of place. Just living, really; what do you do?

A bonfire now, maybe; Nick the Nietzsche-packing, nature-loving chippy comes into his own then, dancing, lurching, launching live sparks into the constellation night. Our house, windows lately glazed, looks out with light. Gods know what goes on beyond them! "Tomorrow rides a rainbow" Peter sings, and we are one. Silent unthreatening cars are ships in the night upon Corndon Hill; the valley village a harbour beneath.

* * *

So the view changes, and our own views with it.

You don't hear BRAD mentioned much now; it's a mellower Eithin-y-Gaer. No longer a soft technology research outfit, organised as a commune; we're a commune, not organised, who happen to do some AT research.

Kind Robin ("Valid for all men for all time") is much given to the epigrammatic. "Too red and too green" was his gem for one of the wider-eyed world-savers amongst us. Think on it.

Ocean Space for Mankind

Sidney J. Holt

"In the beginning, no part of Earth had any man's name on it, nor the sign of any group of men. In the development of the land, the concept of private property was created. Inequity in distribution was almost the invariable rule, but this may not have been as bad as the ruin of common property that inevitably occurs whenever all men have the right to take from the commons and none have responsibility to manage for the future. Now the land is filled and sub-divided; only the ocean remains without a basis for a rational policy governing its use. Continuing to treat the manifold riches of the oceans as commons to be exploited by any and all, without restraint, will soon bring ruin to them and renewed conflict among men. We now understand too well the meaning of equity and the pre-emptive force of national power, to support any division of the

common wealth of the seas along national policy lines. The erasing of old inequities is an obstinate problem to which reasonable men are committed, but to which they expect no early solution. But *nascient* inequities, as yet lightly invested with national interests, may be suppressed at the outset, if we can but muster the will. No generation has had so clear and splendid an opportunity—that is to distribute the wealth of the ocean better than did our ancestors the wealth of the land”.

Thus, Garrett Hardin wrote a preamble for a policy statement of the International Association of Ecology (INTECOL).

Representatives of practically all Governments will be working during 1974 on one of the most complex and urgent tasks of international law—nothing less than the framing of a new regime for governance of the ocean and its resources. The UN Conference on the Law of the Sea (UNCLOS) is actually the third such conference, and it is a far more comprehensive one than those of 1958 and 1960. It will be started in Caracas, Venezuela, and continue, in 1975, in Vienna.

After prolonged argument in the Preparatory Committee, it has been agreed that the Conference will deal with practically all aspects of inter-related marine problems—sea-bed minerals, pollution, fisheries, territorial waters and so on. The political atmosphere in which UNCLOS starts is one of growing tendency by governments to extend their authority over ocean space. This, if continued, will erode the value of the historic UN Declaration of Principles, of December 1970. That Declaration embodied the concept that a large part of the sea-bed and ocean floor is the common heritage of mankind and therefore cannot be appropriated by any persons or states.

Many interested people who, although being internationally minded, do not represent governments, have been watching, with mounting concern, as governments shy away from the vision of the common heritage. These people, groups in non-governmental organizations (NGO's) have, in various ways, expressed their view that the vision should not only be maintained, but should be expanded to encompass not only the international sea-bed, but ocean space as a whole, including the water column above (and its resources, naturally) and even the air-space above that. They believe, and bring much evidence to support their belief, that only by this action can we ensure future peace and equity in the ocean and further, that this will inspire and guide solutions to some other pressing international problems arising from concepts of national jurisdiction and sovereignty.

The World Association of World Federalists, Quaker groups, the Sierra Club, Save Our Seas, the Planetary Citizens Registry, Friends of the Earth, the Audubon Society, the Association of World Colleges and Universities, Dai Dong and other bodies all have endorsed this position or are sympathetic to it.

In a widely read article in the British Journal, *Your Environment*, Brian Johnson of Sussex University suggested that NGO's should try to have an effective—and co-ordinated—influence on the UN Conference. In addition to submitting papers, and pressing to be allowed to participate in the Conference (as over a hundred of them did successfully in the UN Conference on the Human Environment in Stockholm, 1972), he suggested they should immediately set up a non-governmental ocean space environment committee. The idea of a working committee also came up in the proposal from an inter-party group of British parliamentarians, for a “watchdog” for the ocean environment, to be called “Trustees of Ocean Space”. The fourth Pacem in Maribus Convocation, organized by the International Ocean Institute, in Malta in June 1973, took up this question, and drafted the elements of a new Declaration which was sent to UN delegations. Dai Dong has since formally adhered to that draft statement, and it will be discussed by representatives of other NGO's who will meet in Nairobi in March 1974 on the occasion of a session of the Governing Council of the UN Environment Programme. This follows the decision by the World Assembly of NGO's Concerned with the Environment, last June, that high priority must be given to seeking a common position of NGO's on the main policy issues of the Law of the Sea Conference. We suggest that a common position can be found in the introductory words of the PIM draft, which are:

“The UN Declaration of Principles, of 1970, should form the basis for a future international regime for the sea-bed, ocean floor, and subsoil thereof beyond the limits of national jurisdiction, but it needs to be broadened to conform to contemporary technological conditions. Persuasive evidence has since been produced in discussions within the United Nations:

- a: that the area to which the 1970 declaration applies must be considered as a part of ocean space which is an ecological whole;
- b: That man's many uses of ocean space intersect and interact;
- c: that activities in the water column may substantially affect the sea-bed, and vice versa;
- d: that activities in areas under national jurisdiction may substantially affect international areas, and vice versa;
- e: that the conservation of the marine environment and the national management of its resources are essential to the survival of humanity”.

Readers of *Towards Survival* are invited to send their views and suggestions for further action to the Editor, or to the author of this note.

(Author's address: Dr. Sidney J. Holt, Professor of International Ocean Affairs, Royal University of Malta, Msida, Malta.)

Poetry

THE SOLDIER, 1974

(with apologies to Brooke's *The Soldier*, 1914)

If I should die, think only this of me:
 That there's some corner of a foreign field
 That is for ever England. There shall be
 In that kin-land a brother's dust concealed;
 A dust whom England bore, made unaware,
 Gave, once, her broilered fields and ways to roam;
 A body of England's, breathing foul-fumed air,
 Washed by her petrol and detergent foam.
 And think, this heart, all nature fled away,
 A cog in Capital's machine, no less
 Gives somehow back the death by England given;
 Her Parties, Parliaments, and—false as they—
 Her 'work' and Wonder Drugs; and weariness
 In hearts despoiled, under an English heaven.

Basil DrUITT

APPARENTLY

Apparently
 Pollution of river and air
 permeates mind and tongue,
 filters between the clips
 Of the careless and thoughtless.

Apparently
 Pollution of mind and brain
 Deflects reasonings and sensibilities,
 increases the greed
 Of the unthinking and vain.

However,
 There are still
 beautiful, sensitive people.
 pray they find the courage
 and skill to speak, undaunted.

Anna Southwell

THE COUNTRYSIDE

The countryside is very pretty,
 Not dirty and dusty like the city.
 The countryside is very neat,
 Not cluttered with litter, like our street.
 The countryside has lovely flowers—
 No high skyscrapers and post office
 towers.

The countryside has lovely birds
 That always sing the same true words.
 To live in the city's a terrible thing—
 Not what I hope the future will bring!

In the countryside all creatures are free,
 But if you go to town you will see
 Animals cooped up in cages small—
 I don't call that being free at all;
 The countryside has few houses to hide;
 No factory smoke and fumes outside,
 No dusty and frustrating heat,
 No pushing people and tramping feet,
 No noisy cars or electric guitars,
 But clear, fresh nights and shining stars.

Anita Pearce (aged 10)

TOWARDS SURVIVAL Accounts

for the financial year June 1972 to June 1973

The accounts for the above period have now been sorted out. I have not employed auditors but the following is a true picture resulting from triangular discussions between a friendly accounts analyst, the income tax inspector and me. Two comments need to be made: 1. Separate accounts were not kept for income from subscriptions and donations. These were approximately equal. In the next set of accounts these will be shown separately. 2. These accounts are ancient history from the point of view of production and material costs. Since then we have gone to a properly printed format and costs are now a good deal higher. Some readers have complained that they would have sooner kept to the previous home-printed format but I simply could not keep up with the pressure of work involved. The journal is certainly much more readable in its present form.

Income and Expenditure

	£	p
Subscriptions and Donations	1108	02
Production costs	958	48
	149	54
Administrative expenses	488	80
Loss for year	339	26

Balance Sheet

	£	p		£	p
Current Assets (cash, stamps, stock)	364	44	Current Liabilities (subscriptions)	381	96
Capital equipment	560	00	Hire purchase loan	275	00
Formation expenses	1	00	Loan from principal	607	74
			Loss for year	(339)	(26)
	925	44		925	44

Keith Hudson

Correspondence

Cheap packaging

I disagree with the observation made by Eric Millward (*Towards Survival* 20). Mr. Millward recommends the sustaining of the new style *TS* in our "image conscious"

My view is that a parallel can be drawn between this and wasteful packaging, which we are told must be employed to the selling-appeal of many commodities. Personally, I enjoyed the old style of *TS* in the *TS* 15 era, which contained a lot more information compared to recent "new style" issues.

I am sure that the ideas portrayed in *TS* are ready by people with little preference between types of printing and paper styles, purely of low importance compared with the important function of your magazine.

Please, a return to the cheap, old style of *TS*.

S. T. WOODIN,
102 Fox Hollies Road,
Cocks Green,
Birmingham B27 7PY.

Cycling

Referring to Mr. Waterson's letters in *TS* Nos. 18 and 20, at least one major bicycle manufacturer has considered weather protection for cyclists, but has concluded, somewhat pessimistically, that it presents 'intractable problems' due to extra weight, cost and (allegedly) 'increased rider effort in the face of adverse winds and perhaps even some hazard in gusty conditions'.

I must confess that I do not see why a light fibreglass moulded shield should be prohibitively heavy and costly, nor why it must necessarily increase resistance in head winds. Experiments with airships demonstrated that a properly streamlined form incurred only 2% of the wind resistance of a flat plate of the same cross sectional area. While it would be too much to hope for reductions of this order in the case of bikes, there can be little doubt that a properly designed shield would not only provide weather protection but also lower head resistance substantially, and consequently, the effort needed to pedal into wind.

Gusts ought not to much of a problem except, possibly, in strong side winds. The only real snag seems to be that bikes would be more easily blown over when parked, unattended, at the kerb.

I therefore look forward to the day when the penny drops and some progressive cycle manufacturer produces what we all would be glad to see, and I think he would make a good profit, justly earned.

F. P. U. CROKER,
Avon Lodge,
Hillborough Crescent,
Southsea PO5 2AN.

Dry Cycling

P. G. Waterson is unlikely to find a bike with a cabin protection from the elements. If he did I fear that it would be very hard work riding it, since the wind resistance would be high, even in still air. In crosswinds it would be very dangerous and in headwinds it would be stationary. Winds from behind would be a bonus, however, since the machine would be blown along, but it would have to be fitted with very effective brakes. With well adjusted wheel bearings and well blown-up tyres the modern cyclist expends most of his energy in simply fighting against the air around him—hence dropped handlebars.

Cyclists must be like Beethoven, who rather than dreading the rain took delight in getting it on his scalp.

MARK BURTON,
78 Three Shires Oak Road,
Smethwick,
Warley, Worcs.

Plan for a self-sufficient village community

We intend to help establish a self-sufficient village community of about five hundred people, which will:

Develop and try out ecologically sound methods of providing for its inhabitants.

Support the kind of educational programme which is essential for the change to a stable society.

Give positive support to the survivalist movement by demonstrating that stable communities making minimal demands on non-renewable resources can offer greater happiness and fulfilment than the present society.

Initiate, encourage and bring about the reconstruction of society into small communities through a movement of people "voting with their feet", which could mean the decentralisation of government and real power for people.

We envisage formation of the community by the following sequence:

- (1) A team or committee is formed, each member being responsible for investigating a specific aspect of the community.
- (2) A definite time period is allotted for the research mentioned above; raising cash to buy 500 acres; recruiting 500 participants; and learning of suitable skills by the potential participants.
- (3) When the money is raised and the land bought, as many families and/or communes as possible move in and work towards completion of the community.
- (4) The impetus of the movement should continue by each established community devoting its surplus energies (after its immediate needs are satisfied) to setting up another community. Each succeeding community having received such necessary help in its establishment without strings or repayment, would in its turn assist further communities. The existence of several such communities within a given area would mean an easier and happier life for each one.

We need people who are prepared to turn their backs on the lure of industrial society. The essential qualities are vision, faith and love of hard work. If you have practical experience of farming, crafts, water supply, sewage treatment, building, etc., all the better. If you can bring into the community capital from the sale of houses, cars, etc., this will of course be welcome. If you feel as we do and want to work with us in actually building a new world please write to us.

DON & LIN WARREN,
3 Salubrious,
Broadway,
Worcs. WR12 7AU.

Reviews

Economies and the Environment. By Matthew Edel. (Prentice-Hall, 1973. £4.15).

It is encouraging to find an economics textbook—one of the Prentice-Hall Foundations of Modern Economics series—dealing so sensitively and intelligently with environmental issues. Starting from a comparison of economies with ecosystems, the author goes on to consider the population-resources balance in economic terms, and the possibilities of expanding agricultural production. Various forms of pollution are considered, and this leads to a sustained consideration as to why economic growth is not more selective, and how ecologically more sound growth might be attained. The possibilities of 'environmental fine tuning' (effluent charges, regulation of environmental damage, etc.) are considered, but such approaches are considered inadequate in certain areas, such as the effects of motor cars and highway construction. The author follows through the radical implications which significant changes in such areas of public and economic policy would entail.

At over £4 for 150 pages, a cost-benefit analysis may still force many readers to use a library copy. Nevertheless this is a book to be highly recommended to general readers as well as economics students. It succeeds in presenting its material in a clear and readable style, while avoiding any superficiality in the necessarily often concise presentation.

P.K.S.

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How to run a pressure group. By Christopher Hall. (J. M. Dent/Aldine paperback. £1.25).

What troubles me about pressure groups today—particularly those aimed at legislative objectives—is, as I've said elsewhere in this issue, that they assume a given political, media and social situation, a situation that keeps to the rules, as it were. But if one believes (a) that responsible decision-making processes are becoming almost impossible due to the organisational complexities and inefficiencies of government, civil service and large industry, (b) that the engine of our growth society—that is, built-in institutional and social expectancies—is beginning to splutter from lack of juice, and (c) that a fundamentally new society has got to emerge within the next one or two decades if we are to survive at all, then he must be forgiven if he regards pressure groups as a rather luxurious foible. It must be said though that p.g.s have been hitherto a valuable feature of a democratic

society; it is to be hoped that when a sustainable society develops in the future, p.g.s (this time a little more egalitarian, please!) will once again re-emerge as watchdogs of a democratic system. Bearing in mind these reservations about today's p.g.s this book is recommended as the handbook of the p.g. "movement". Christopher Hall, who must be regarded as one of the most skilful opponents of p.g. tactics in this country, has covered pretty well everything that needs to be known. The book is well written, comprehensive and good value.

K.H.

Be Human or Die—A Study in Ecological Humanism, by Robert Waller (Charles Knight & Co. Ltd., 1973. £4.50).

This is an intriguing book, full of the most quotable comments on our insane society; it tries to teach us "how to eat doomsday pie without too much indignation". Unfortunately, the further this

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reviewer read, the more he wanted to re-dit the book, rather than review it. There's little to fault in the analysis, the recommendations, the coverage of all the threads that are dragging us along a road to ecological disaster; there's nothing much wrong with the often quite conversational, easy-going style; but the package is just not tied together very well, and after reaching one pearl of wisdom after another, it is still hard for the reader to follow the development of the argument, to feel drawn along towards the kind of commitment that the author seeks to inspire.

Nonetheless, this is an important book, as an ambitious first attempt at providing an overview of philosophy, religion, psychology and human motives generally as they relate to the ecological crisis. The patient reader will be rewarded by many insights, and by an assortment of fascinating information on such topics as the excesses brought by the over-use of machinery, the dangers of reducing everything to numbers, the follies of a free trade economy, the horrors of agricultural mismanagement, the perversions of our diet, and so much more. The recommendations at the end about eco-activist initiatives—"obstruct Concorde, obstruct Heathrow, picket factory farms"—so as to bring "our thought nearer the truth by action", seem rather small beer in the context of such a great ecological overview as the book attempts to provide. This is probably a measure of its failure. Yet, as a much more comprehensive attempt than others that have been presented by leaders of the eco-movement, it is a significant failure, and one that may stimulate other writers to produce an even less indigestible exposition of what our age requires of us if we are not to die—not to go the way of the dinosaurs.

R.F.

Waste Not . . . By David Delaney, Alan Frith, Keith Humphries, Mella Keohane, John Standish. (Camden Friends of the Earth, 45½ Upper Park Road, London, N.W.3. 50p.)

This report, formally written for Camden Councillors, is a thorough analysis of the economics of waste paper salvage. It is to

be thoroughly recommended to readers in other parts of the country as a guide to the sort of survey they ought to be able to carry out. As the costs of paper have continued to rise since the report was published earlier this year then potential profits to municipal authorities ought to be considerably higher than those proved for Camden. Besides the proposed scheme there are sections devoted to major trends in the paper industry and the background to world shortages. This is well-prepared and an excellent guide for others to follow. Besides saving paper FOE-type salvage schemes ought to give much-needed employment in the coming years.

J.P.T.

Announcements

WHY WASTE '74? The Resources and Recycling Group of the Cheshire Branch of the Conservation Society are organising a 3-day exhibition at the Chester Arts and Recreational Trust Centre, Market Square, from April 25 to 27. The objective of the exhibition is not only to increase public awareness of the need to conserve material shortages but also to highlight possible solutions. Several companies involved in the recycling business will be represented as well as exhibits by the Conservation Society and FOE. Various competitions have been organised and winning entries will be displayed. Admission free. Full particulars from Mr. B. R. Payne, 12 Millfield Close, Farnon, Cheshire.

A STRATEGY FOR ENERGY SYMPOSIUM. The published proceedings of this symposium, held in Stirling last November, are now available. A review of the proceedings, details of the publication, etc., may be obtained from Peter Dickson, 11 Hamilton Crescent, Bearsden, Glasgow G61 3JP.

IN THE MAKING. A Directory of Proposed Productive Projects in Self-Management or Radical Technology. Send 15p for *ITM* No. 2 from *In The Making*, 71 Thirlwell Road, Sheffield, S8 9TF.

UNCAREERS. A Directory of Alternative Work. Send 20p for latest edition. Uncareers, 298b Pershore Road, Birmingham 5.

SCIENCE FOR PEOPLE. The journal of the British Society for Social Responsibility in Science. Subscription £1 p.a. BSSRS, 9 Poland Street, London W1 3DG.