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The People Party has become the Ecology Party. It is growing fast and in the next election (the third it will have contested so far) it should field enough candidates to be eligible for free television time (50 are required). Ecology may soon be a force in British Politics.

In France, at the last Presidential election, there was an Ecological candidate: René Dumont. He obtained 330,000 votes or 1.2 per cent of the total, roughly what the People Party obtained in the October, 1973 election.

In Alsace, the 'Ecologie et Survie' Party contested the last French legislative election. It is becoming very influential and hopes to obtain at least 5% of the votes in the next one (in the Spring of 1976). Already, in some villages it has the support of between 30% and 40% of the inhabitants.

In New Zealand, the Values Party, in Australia, the Australia Party, in Tasmania, the United Tasmania Party, are emerging as forces to be reckoned with. Their programmes are all largely based on Ecological principles.

These new parties are but the political expression of a growing movement which reflects the strongest reaction so far to the industrial world and the values which it enshrines. This movement is taking many forms. The most obvious is the refusal of an increasing number of young people to get involved in what is usually referred to as the 'rat race'. Instead, they opt out, living as best they can on the periphery of society. Many take to drugs or indulge in other forms of retreatism as a means of cutting themselves off from a world which is increasingly intolerable. Others find a niche for themselves in the country, indulging in various crafts and, in particular, in subsistence agriculture, by themselves or in groups – organized along various experimental lines.

They come from all sectors of society - not just the middle class as is often supposed - and are developing, largely by convergence, a unified view of the world around them. What one is seeing, in fact, is the emergence of a new sub-culture - one which, for reasons I shall give further on, is likely to become dominant within the next decade.

What then, are its main features?

Firstly, it rejects the industrial world because of its mediocrity, its ugliness, its unnaturalness and its hypocrisy - in fact because it fails to satisfy basic social, aesthetic and spiritual needs. Particularly interesting is the rejection of modern Science as a means of acquiring knowledge.

A professor at an American University recently complained, in an article in *Natural History*, that his students had adopted a totally unscientific and hence 'illogical' attitude towards diet. They were all convinced that food grown organically was healthier than food grown with the aid of chemicals. His insistence that scientific measurements did not confirm this conclusion fell on deaf ears. His students placed greater store on their instincts than in the measurements. As we shall see, if Science is a means of obtaining valid information rather than the performance of the empty rituals which, today, go under the name of 'Scientific Method', then it is *they* who are being scientific not *he. Measurements are only meaningful if relevant factors are being measured, and 'Scientific Method' does not provide a means of determining which are the relevant factors.* 

Since the tendency is for those that cannot be measured to be regarded simply as not existing, the relevant factors are usually those which present technology enables one to measure, quite apart from the fact that they must also be those which happen to fall within the particular field of study of the specialised researcher involved. If one takes into account all the factors which 'Scientific Method' chooses to ignore in favour of laboratory experimentation, then it can easily be shown that the students were right.

But do we, in fact, need Scientific measurement? What is illogical about using our instincts as a guide to our behaviour? What, after all are instincts for? Three thousand million years of evolutionary research and development have designed them for this purpose. If our scientists have the presumption to suppose that they can do better, then surely the onus of the proof must rest with them.

It is highly significant that most country people whose minds have not been warped by too close a contact with our seats of learning, know instinctively what is right and what is wrong.

They know, for instance, that it is wrong to douse our fields with a witch's brew of toxic chemicals, wrong to deprive our land of organic matter, wrong to lock up our poultry in concentration camps whose squalor would turn the stomach of the most callous S.S. guard, wrong to close village schools so that our children might be consigned to vast factory-like comprehensives, wrong to force people to live in shoddy apartment blocks in urban wildernesses, among motorways, rubbish dumps and gas containers and even more wrong to create a society and a way of life in which all these things become unavoidable.

Yet our scientists do not seem to have established these obvious facts. Their reaction to these statements would be that there is no 'evidence' to support them and that they do not, thereby, constitute true know-ledge.

Equally interesting is the rejection of modern technology. In a sense, nuclear power stations, giant oil tankers, supersonic transports, and in particular, spacecraft, are monuments to the industrial age, just as were the pyramids to 5th Dynasty Egypt.

Their total irrelevance, however, to the solution of the problems the world faces today could not be better illustrated than by the meeting up in space of the American and the Russian astronauts. This, possibly the most extraordinary technological feat of all time, occurred at a time when it had become apparent to practically all thinking people that the world's problems, (population growth, urbanisation, poverty, unemployment, famine, pollution, resource depletion, etc.) are totally out of control. Indeed, all the pathetically misdirected energy, ingenuity and enthusiasm which has gone into designing and producing these devices has done little more than exert additional stress on our natural environment and hence to increase still further the biological, social and ecological disruption of which these problems are but the symptons.

Along with the rejection of modern technology, has grown up a veritable cult of small-scale, largely nonpolluting technology – variously referred to as intermediate technology (Fritz Schumacher) appropriate technology (Gandhi Peace Foundation in India), alternative technology (Peter Harper and others) and low impact technology (Andrew MacKillop).

Indeed, the windmill, the water wheel, the methane gas plant, the composting lavatory and the solar collector have become, among Ecologically minded youth, the symbols of the new sub-culture they are creating.

Also rejected are industrially produced consumer goods whose accumulation is regarded in Communist and Capitalist societies alike, as the ultimate goal of human endeavour. These they realize are but paltry compensations for the limitless benefits which nature once provided for nothing.

Indeed, it is only because of the methodical disruption of natural systems by industrial society that we have become so dependent on its compensations and also on the money required for their purchase. Such considerations have rarely entered the thoughts of most of our scientists, glued as they are to their test-tubes and logarithm tables.

Yet the principles involved are easily ascertainable. Consider, for instance, the Indians of the North West Coast of North America. By all accounts, they inhabited a veritable Garden of Eden. It is said that so numerous were the salmon, that they could walk across the rivers on their backs, while so abundant were the shell-fish which littered the seashore 'that when the tide went out, the table was laid'. At the same time, game animals proliferated in the luxuriant forests which also provided limitless quantities of fruits and berries. In such conditions it was necessary for them to enter into but few if any monetary transactions. Hence, in terms of our singular set of classifications, these unfortunate people had a very low standard of living – indeed, they were desperately poor.

Consider now the opposite situation of the American astronauts on the Moon. This inhospitable waste is incapable of satisfying any of Man's basic biological and social needs. Everything required to keep an astronaut alive must be brought with him, even the oxygen for him to breathe. The cost of living on the Moon is thus incalculable. Indeed, a man vegetating under some small plastic dome, economically breathing his limited supply of oxygen, feeding on a variety of tasteless and largely toxic synthetic foods, and praying all the while that a fault does not arise in the elaborate and highly delicate technical apparatus on which his very survival must hinge, would thereby be enjoying the highest possible standard of living – one which is totally beyond the means of the richest Arab Sheikh of the Persian Gulf.

Now consider what happened when the white man took over the North West Coast from its original inhabitants. He did not take long to pollute the rivers and the seas, kill off the salmon, poison the shellfish, cut down the trees which once provided the fruit and the berries, exterminate the game and build huge urban wildernesses to which the necessities of life had now to be brought from afar as if to the Moon. In addition, as these wildernesses became further industrialised, so did the quality and elaborateness of the material goods required for survival, increase from day to day; for industrialisation, by its very nature, must create needs faster than it can hope to satisfy them.

If one studies the full implications of this transformation – typical of what has happened throughout the industrialised world, one realises that our Ecological youth is fully justified in its yearning for a return to Nature, in its worship of everything that is natural: – natural wildernesses, natural foods, natural medicine, the open air life as well as the rejection of everything that is artificial, synthetic and contrived. Their set of values, in fact, is the only one that can truly be regarded as ecological – in the sense that only a society which has accepted it can conceivably develop a behaviour pattern that will not lead to the systematic and cumulative destruction of the environment on which it depends for its sustenance, cancelling in this way, several thousand million years of evolution. In fact, only such a set of values, as Sir Frank Fraser Darling points out, can be regarded as truly moral. Fortunately, today, it is not only that of a group of youthful dropouts. It is also beginning to spread among respectable members of our mainstream society. This is so in

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Alsace, where the Ecological Movement has so far taken its most active form. Non-violent resistance here is building up against Government efforts to transform Alsace into a French Ruhr. Alsatian activists have been involved in mass sit-ins, sometimes up to 20,000 people taking part — at sites where the building of large factories and in particular nuclear-power plants are in progress. The movement has now spread across the Rhine to Baden-Württemburg and the Swiss Canton of Basle, both of which are menaced with similar environmental disruption. The activists have had ample opportunity to develop their own techniques of non-violent resistance against the authorities. These have much in common with the methods used so effectively by Gandhi against the British Colonialist Powers. Indeed, Ecology groups in general are becoming increasingly aware of their connection with Gandhiism. Jayaprakash Narayan's Sarvodaya Movement in India stands for precisely the same principles as they do, (though they may be formulated in a different vocabulary), and their social goals are also the same.

At this point we might well ask what has all this to do with ecology with a little 'e', the academic discipline taught in our universities? This question is already being asked by many, though by no means all our professional ecologists, who are horrified to find their cosy little discipline being vastly expanded to embrace almost everything, worse still, to become a social movement — even worse, a political party. Why does the same thing not happen to microbiology or limnology they might well ask?

The answer is that many of our ecologists have not yet faced all the implications of the principle which underlies their discipline.

The principle is that the constituent parts of the natural world are closely interrelated - not in a random way - but in a way which is very ordered and hence predictable.

The first implication is that reductionism – the study of things in vacuo in laboratory conditions, which underlies scientific method, does not provide information about the real world – because things in vacuo do not exist in the real world any more than do unicorns.

Our scientists in fact, who think they are studying the real world are really plunged in a world of their own and the test-tube, as a means of understanding and predicting world events, may well be of less value than the crystal ball. This, needless to say, is an implication which most ecologists, keen as they are to maintain their status within the scientific community, are not willing to accept.

On the contrary they have desperately sought to reconcile the principle of the interrelationship of the constituents of the natural world with those of 'scientific method', and have mainly come to distinguish themselves from other scientists in that, rather than study *things* in vacuo, they have come to study *inter-*relationships in vacuo.

This leads us to a second implication, one which the more enlightened ecologists accepted some thirty years ago. That is, that a bit of the natural world, within which a set of interrelationships can be seen to obtain, has an identity of its own and constitutes, in effect, a system, (in this case an ecosystem) in the same sense that an organism, a society or a population are 'systems', and that these interrelationships *are nothing more than its metabolism*.

This principle should theoretically lead our ecologists to the most important new discipline of General Systems, which shows that the basic principles of the behaviour of all natural systems, whether they be cells, organisms or ecosystems are the same, and also that of Cybernetics, closely associated with General Systems which shows that the mechanism of control used in all natural systems is the same. But these considerations which could only lead to the development of a General Theory of Behaviour and a model of the biosphere as a whole, would cause ecologists to diverge too far from accepted scientific method, and very few indeed have dared to take them into account.

It would also lead them to realize that human beings are very much part of the world's ecosystems, and that a realistic Science of Ecology must include that of human behaviour and also of the societies into which man is organised. Most ecologists avoid having to face this issue by confining their studies to micro-ecology – the study of very small ecosystems, duck ponds and the like. More recently, the necessity of studying larger ones (macro-ecology) has impressed itself on a number of ecologists, and the new discipline of Human Ecology is tentatively emerging, while among Anthropologists yet another new subject – Cultural Ecology – which concerns itself with cultural adaptations to environmental changes – is beginning to develop under the aegis in particular, of Andrew Vayda – who for some reason calls his journal 'Human Ecology'.

Though the founders of these new academic disciplines are moving in the right direction, they are moving very slowly. The dramatic implications of the discovery of the ecosystem, have by no means all been faced. Perhaps the most important of these is that the biosphere, the all-encompassing ecosystem, of which all others are part, is hierarchically organised. Its component systems are at once divisible into smaller systems and part of larger ones. Unfortunately, reductionist scientific method permits the study of the former but not of the latter. It enables us to examine the relationship between a man and the organs, tissues, cells, molecules and even the atoms which compose his body, but not the family, the society, let alone the ecosystem of which he is part.

As intimated, however, there is such a methodology available, though few of our scientists or ecologists understand it - as was evidenced by the very naif reaction of both 'Nature' and 'Science', the two official organs of Science to the publication of the Limits to Growth, that key study of the world situation, which makes use of precisely this methodology.

It consists in first determining what are the variables which are relevant to explaining a given situation, regardless of what field they may fall in. This is referred to as 'systems analysis.'

The second step is to determine how these variables are related to each other. This is referred to as 'modelling.'

The third consists in interpreting and predicting changes in the real world by simulating them on the model. Thus, if it involves a change in the value of one variable, we can see, in terms of the relationships we have already established, how this will effect the value of the other variables and hence of the model as a whole. This step is known as simulation.

The validity of the relationships and of the model as a whole is judged simply in terms of the adaptiveness of the responses based on it.

There is no proof that it is right. All one can say is that it is the best available for our purposes.

What is particularly important, however, is that the model should be of the biosphere as a whole and not just of what appears to be a relevant sector - otherwise one cannot understand the relationship of a component system with all the larger systems of which it is part.

Equally important is that the model should not just represent the biosphere at a particular moment in time, for systems are processes as well as things, and it is relationships with whole processes which we are interested in. Such a model need not necessarily be quantitative. Precision does not consist in measuring concepts which are often irrelevant, but in choosing the relevant ones. The principles involved are far more important than any measurements we might make. Information is more important than mere data, and in any case, precise measurements are often logistically impossible to obtain.

Needless to say, such a model does not exist, and until it does, we can be aware of but a fraction of the relationships which could make our model useful for interpreting and predicting changes in the world we live in - and the least important ones at that.

Truly frightening is the lack of interest in the scientific world in developing such a model, worse still is the failure of Scientific Method - as accepted by the bulk of our ecologists - to provide a means of doing so.

As it is, if we examine known relationships with the family, the community and the ecosystem of which we are part, then the total unacceptability of current human values becomes quite evident. Liberalism, individualism, materialism and economism are only justifiable if we are on our own, so to speak, unconnected to any larger systems than those which we ourselves constitute as individuals.

As soon as we realise that we are part of such larger systems, then these values must be rejected, for if the interrelationships obtaining within these systems are orderly, it means that the range of choices of the sub-systems are limited to those functions which are required of them for the larger systems to function properly, and hence to survive.

If their range of choices were not so limited, if the sub-systems could simply pursue their own independent goals regardless of the effect of such behaviour on the systems of which they were part, then the latter would inevitably disintegrate. This is precisely what happens to an organism when it becomes cancerous. Its cells cease to act as its differentiated parts. They proliferate anarchically, just as do the members of a modern industrial society and of an ecosystem it has disrupted. This is not just an analogy. The cell and the human being are simply specialised instances of a natural system and the basic principles of their behaviour, both normal and pathological are the same.

It follows that societies and ecosystems, whose parts have become random must inevitably collapse though they may be bolstered up artificially for a short time by means of external or institutional controls of various sorts.

Indeed, that industrial society which is the natural outcome of the ideals of liberalism, individualism, materialism and economism must inevitably destroy itself and the ecosystems where it occurs, is evident from its very nature. It consists in building up a totally new organisation of matter – the technosphere or world of material goods and technological devices to replace the biosphere – the world of living things. They are geared to radically different ends, the former to the satisfaction of mainly artificial, petty, short-term human wants, the latter to its overall stability, and hence to that of its constituent systems and sub-systems, including man.

The former can only expand by diverting resources from the latter and consigning to it the waste products which it must inevitably generate. The expansion of the former must thereby mean the contraction and deterioration of the latter. These two processes, in fact, are but different sides of the same coin.

This is by far the most important principle we must understand if we are to begin to solve the growing problems which face us today – problems which, as has already been stated, can be shown to be largely the result of the cumulative disruption caused by the growing impact of the industrial world on the biological, social and ecological systems which make up the biosphere.

This essential principle has not been established by ecologists, for the reasons we have already gone into, but the Ecological Movement understands it only too well, perhaps by instinct rather than by serious analysis – but, as already stated, that is what our instincts are for.

It is for this reason that their attitude towards industrialism and everything that goes with it, is fully justified by what should be Scientific Method.

How then is the Ecological Movement likely to develop? In my opinion, it is destined to become the dominant

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counter-culture and eventually it should provide the basis of the next world civilisation, if there is to be one.

Why can this be asserted with such confidence? The answer is that there is already considerable disenchantment with the conventional wisdom of our times and with the values which underlie it, and as the world situation goes from bad to worse — which inevitably it must — this disenchantment will give rise to total disillusionment. Once this has occurred, the reaction to industrialism and everything it stands for will be radical, and this should see the massive expansion of the Ecological Movement, which is the only truly radical movement of today.

Indeed, Socialism and Communism and, of course, Fascism too, are as committed to the industrialisation process as is Western Liberal Capitalism. They simply provide alternative recipes for baking the industrial cake, and alternative criteria for distributing the slices. The Ecological Movement proposes a very different cake, and, what is more, the only one whose ingredients are, in fact, available.

It could undoubtedly have been predicted that once the Industrial Revolution had transformed the settled yeomanry of Northern Europe into an alienated and anonymous horde, living on the periphery of increasingly prosperous cities, they would strive with all their might to gain a share in this prosperity. No other course was open to them.

One can now predict with equal confidence that having obtained the material benefits which go with this prosperity, they will come to realise what little satisfaction they really procure, and what paltry compensations they provide for the associated destruction of the natural world which previously catered so admirably for their every need.

Furthermore, as even material compensations become increasingly less available, the only course of action which would appear desirable as well as feasible, must be to restore the Natural World to something approaching its original glory and to learn once more to appreciate its immeasurable gifts.

### Edward Goldsmith





Ninety per cent of all 'natural' disasters occur in underdeveloped countries, but aid and development programmes are based on economic policies which, in the long term, are designed to benefit the rich industrial countries which provide them, while imposing on the Third World patterns of land use wholly inappropriate to them. By causing breakdown in their ecosystems they contribute to their predisposition to 'natural' disasters and undermine their ability to weather them. Disaster prevention programmes are therefore meaningless unless they are based on a return to traditional forms of agriculture.

### Introduction

The problems of disaster and disaster assistance have made headlines increasingly in the last few years. Constant appeals are made by governmental and voluntary agencies for aid to victims of floods in Asia, droughts in Africa, or hurricanes and earthquakes in South America. Statistics published by the UN in 1972 suggest that 'natural' disasters are happening more and more frequently.<sup>1</sup>

Yet the problem of disaster is not new. For example, historical chronicles show that the 17th and 18th centuries in parts of West Africa were a series of famines.<sup>2</sup> Nor did the situation improve with French colonial rule in the 19th and 20th centuries. Seen from this perspective, the 1968-1973 Sahel drought/famine, although particularly severe, does not appear as an exceptional event.

The need for 'disaster prevention' is increasingly acknowledged by agencies involved in disaster work. But, unless the fundamental causes of disaster are identified, it will prove impossible to construct disaster-prevention programmes which will actually prevent disaster.

'Natural' disaster is still thought by many to be 'inevitable'. A hurricane, cyclone or earthquake cannot be prevented, but it should be possible to reduce the impact of natural phenomena on a region. The amount of resources, both financial and human, spent on disaster assistance could be significantly reduced were effective prevention programmes constructed and implemented. In order to do this, it is of crucial importance to understand what constitutes a disaster.

### The Components of Disaster

The term 'natural disaster' implies that the primary cause of a catastrophe is some natural phenomenon. While it is true, for example, that a lack of rain can lead to a drought and a drought to a famine, this need not necessarily be the sequence of events. An examination of 'natural' disasters suggests that their causes are very often not uniquely natural phenomena and that human activity plays a significant role in their creation. For these reasons, 'natural' disasters should be largely avoidable.

A disaster can be defined as a combination of factors of a political, social, economic and environmental nature which work to undermine

the ability of a system to cope with new stresses. The interaction of these factors, which are generally long-term in nature, creates the conditions for disaster; that is, they make it inevitable that at some point a breakdown will occur. The conditions for disaster can exist for a long period of time before catastrophe strikes. Very often it is some natural the impact of phenomenon which overloads the system. It is this close association between breakdown and natural phenomena which gives rise to the tendency to describe these events as 'natural' disasters.

Programmes designed to prevent disaster must concentrate on the conditions for disaster. Of the 'natural' disasters recorded by the 1972 survey of the United Nations Disaster Relief Office (UNDRO), 90% have occurred in what is called the 'Third World'. Most industrialised countries, as well as a very few 'developing nations', notably China and the Philippines, have succeeded in reducing the impact of natural phenomena on their territories. So disaster is not 'inevitable'. Why have so many countries been unable to control the effects of natural phenomena? The feature common to all disasterprone Third World countries is their dependence upon the industrialised states, particularly Western ones. Is there a link between this dependency and disaster? Are the conditions which create disaster the same as those which create and maintain 'underdevelopment'? Using an analysis of underdevelopment currently employed both in France and in Britain, it is possible to identify four broad areas in which the relationship between rich and poor countries can create disaster.

### i. The International Economic System

The international economic system is largely controlled by the dominant Western industrialised countries. Its operation ensures that much of the wealth created within the Third World is either exported or put to socially unproductive uses within its own boundaries. The basic choices of which domestic resources to exploit or of what pattern of development to follow are very often made outside the Third World and tend not to correspond to the needs of the majority of the populations of Third World countries. As a result, these countries are largely unable to build the sort of infrastructure which could alleviate the impact of natural phenomena on their territories.

### ii. Destruction of Third World Ecosystems

Many observers and indeed a growing number of development officials now recognise that, though logical from a strictly economic point of view, the commercialisation of crops leading to monocultures or the digging of wells to regularise the movements of pastoralists' herds have contributed to the de-stabilisation of ecosystems. These activities have increased the likelihood of disaster by exacerbating the impact of natural phenomena on an area by weakening its ecosystem. A corollory is that it may prove more difficult, for the same reason, for an ecosystem to regain any sort of equilibrium following a disruption.

### iii. Food Aid and Agricultural Policies of Industrialised Countries

The desire to protect domestic farming interests in industrialised countries, causing restrictive tariffs to be imposed when farmers underproduce, and PL-480 type policies when they over-produce, can lead to the dependence of Third World countries on imported food stocks\*. Such policies may encourage Third World farmers to produce non-food crops at the expense of food crops, thus reducing their ability to create adequate stocks for buffer times of emergency.

Some economists argue that food aid has very little impact on the production of food in the Third World. The correctness of this argument would seem to depend on the extent to which the food crop sector is commercialised and

on the relationship between prices for food crops and those for cash crops in each country or region. In the case of West Africa, where a large amount of food production is still derived from subsistence agriculture and where the prices for cash crops are generally more attractive than those for food crops, the ability to buy foreign grain at a price below that of domesticallyproduced grain appears to have exacerbated the dependence of this region on imported food. The dangers of this sort of strategy become evident when the supply of foreign food decreases and/or its price increases and the level of food production within the region falls simultaneously.

### iv. Role of Third World Governments

It is not uniquely the policies and activities of industrialised countries which create the conditions for underdevelopment and disaster. A coincidence of interests between governments of Third World and industrialised countries may cause the former to ignore the needs of their people as a whole. Even where their interests are not identical, proposals set forward by industrialised countries may enable Third World governments to overcome certain domestic problems or opposition and as such may be acceptable. For example, certain Sahelian countries may welcome plans to construct ranching schemes on their territories, not only because they are seeking to attract foreign investment, but also because they have long sought ways to limit the independence of their pastoralist populations. Similarly, the Rural Works Program (RWP) in pre-1970 East Pakistan, conceived largely by US academics and implemented with US PL-480 counterpart funds, might have been instituted as much to give the impression, both to foreign donors and to Bengali peasants, that rural problems were being dealt with seriously as to create an effective flood control/irrigation system.\*

<sup>\*</sup>US Public Law-480 was designed to help overcome the problem of US domestic overproduction in agriculture. PL-480 allows the sale of agricultural surplus at relatively low prices. Payment is made in the local currency and is used by the US Government in the purchasing country. Money accumulated in this way by the US is termed 'counterpart funds'.

<sup>\*</sup>Although over 3600 miles of embankments and 4000 miles of drainage-irrigation works were constructed under the RWP, the system was poorly maintained. When the November 1970 cyclone struck, it had little effcct.

### **International Agency Views**

International agencies involved in disaster work do not analyse disaster in this manner. In the first place, the relationship between these organisations and the international s, stem dominated by the major industrialised countries makes it difficult for the policies and activities of the latter to be identified with the creation of disaster. These agencies are themselves extensions of that system and, in most cases, have been created by the major industrialised countries to serve their interests. This is as true of UN agencies as of national development agencies like USAID. The framework within which these organisations operate, makes it suggestions for unlikely that significant changes in the status quo that creates disaster will derive from them.

At the same time, the tendency toward specialisation and compartmentalisation inherent in large bureaucracies further reduces the likelihood that profound enquiries into the policies and programmes of these organisations will be carried out from within. It is difficult for an official enough to comprehend the entire range of activities within his own organisation, but it is next to impossible for one person to assess with any degree of accuracy the way in which his organisation interacts with others or the international system as a whole.

Furthermore, the individual is not encouraged to attempt this sort of assessment. Dissent is allowed only within certain well-established parameters. Individuals become unwilling to take risks, and decisions eventually conform to a certain pattern which becomes increasingly difficult to break. In short, bureaucratic inertia sets in.

Yet, despite these shared limitations, the ways in which these agencies view disaster vary. Relieforiented organisations make a clear distinction between the disaster situation and the more long-term factors involved. The latter tend to be described as 'development' problems and thus fall outside the terms of reference of relief agencies.

The preparedness and prevention sections of these organisations look for means of reducing the cost of disaster for affected countries and seek to give advice on devising plans for action during emergencies. The attitude seems to be that 'disasters will occur whatever we do'. To a limited extent, of course, this is true. Some disasters will continue whatever preventive to occur measures are taken. However, very many of the disasters facing relief agencies could be prevented or their alleviated if effects certain fundamental changeswere instituted. While it is recognised that because of their terms of reference, relief agencies are not equipped to deal with these basic questions, which, after all, must be resolved in the disaster-prone countries themselves, these organisations could help to engender public debate on the real causes of disaster. In separating the relief issues from those of development and dependence, relief agencies only help to perpetuate the myth that such a thing as a-political, humanitarian aid is possible between industrialised countries and the Third World. Some relief organisations are beginning to question the long-term usefulness as well as the humanitarian nature of their aid.<sup>3</sup> If this phenomenon becomes widespread, it may be possible to break down the distinction between purely 'humanitarian' relief aid and development problems and to international public encourage understanding of the causes of disaster.

Development-oriented agencies, which include UN organisations such as FAO and WHO, national development ministries like USAID and ODM, and voluntary agencies like OXFAM and War on Want, do link disaster with the state of underdevelopment. They tend to take the view that development must take place to strengthen the infrastructures of disaster-prone countries to enable them to withstand better the effects of natural phenomena. However, because of their position (with a very few exceptions) as extensions and creations of the international system dominated by the industrialised nations, the development they envisage is of the sort which will be beneficial to

the needs and interests of the industrialised countries as well as of Third World governments and which will engender precisely the same kinds of policies which can be seen as largely responsible for the creation of many recent disasters.<sup>4</sup>

This is true not only because each individual programme carries within it elements of destruction. There is also a great danger in the unco-ordinated implementation of programmes in different sectors which can interact in such a way as to create disaster. Projects designed to increase the health and life expectancy of populations taken in conjunction with but without reference to agricultural programmes which rely on ecologically unsound methods of land-use can, and in the case of the Sahel did, combine in precisely this manner. International agencies, of course, and particularly UN agencies, are notorious for their refusal to co-ordinate activities. The danger is great that, as their programmes proliferate, they may well cause even more profound have breakdowns than been experienced to date.

### Breaking the Dependence-Disaster Cycle

If it is accepted that the pattern of development thus far imposed on Third World countries has had an important bearing on the creation of disaster, then rehabilitation and prevention programmes must be carefully scrutinised if mistakes are not to be repeated. There is some indication that thought is being given to the problem. Some officials of both the FAO and the EEC suggest that previous development programmes in the Sahel have not helped to control the drought and that new projects should be carefully vetted. It remains to be seen, however, how thorough this process will be.

If dependence upon external powers is considered a primary cause of disaster in the Third World, the long-term prevention of disaster is only possible through genuine indigenous control over the resources of any given state or region. In this case, the role of foreign aid, both development and relief, will be severely curtailed. Although the choice to adopt this sort of development strategy must ultimately be made by the people living in each area, a number of international officials are now discussing possible alternative forms of indigenous development.

Some EEC officials and the Livestock Division of the Société d'Etudes pour le Développement Economique et Social (SEDES) favour low-technology, peasant/ pastoralist-biased development schemes for the Sahel.\* A 1974 study commissioned by the EEC suggested the continuation of traditional pastoralist methods of raising livestock, for intensive ranching in the Sahel is considered ecologically dangerous. This report and others by SEDES promote the integration of the livestock and the agricultural sectors through the creation of peasant-based cattle ('embouche fattening schemes paysanne'). The objective is to provide a stable market for cattle and higher-quality beef for consumption as well as manure and \*SEDES is a Paris-based research organisation which does commissioned studies for the French Government and certain African governments.

draught animals for cultivation purposes. It is this sort of scheme which is encouraging, for it requires minimal external participation (some 'embouche paysanne' schemes have been started spontaneously by African peasants and pastoralists) and contains the potential for a genuine improvement in the living standards of West African peasants and pastoralists. However, both EEC and SEDES officials admit that this sort of scheme is but one of a range of alternatives and that it may not appear attractive to West African governments or to a number of international financiers. The EEC has implemented no long-term postdisaster projects in West Africa to date and it is not yet clear what priority peasant/pastoralist-biased programmes will be accorded when the final decisions are made.

Other attempts at indigenous control can be cited; many of which have been encouraged and aided by international voluntary agencies. Some have arisen more or less spontaneously (such as the self-help co-operatives in Bangladesh). Others have enjoyed varying degrees of governmental support. But all too often, as the case of Honduras demonstrates, the government uses land reform as a means of consolidating its own position of power and fails to take the measures necessary to ensure that fundamental change occurs.

But despite opposition or ambivalence on the part of most Third World governments to this form of development, the dependence-disaster cycle can only be broken if the population of each disaster-prone country gains genuine control over its resources and its destiny.

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### NON-VIOLENCE TRIUMPHANT by Solange Fernex

### Translated by Victoria Hutchings

During the last two years all Europe has been made aware of the dramatic confrontations taking place between the Authorities and the peoples of the Rhine Valley. All Europe has witnessed the success of non-violent resistance to industrialism imposed from above. Sites set aside for nuclear power stations and a chemical factory have been occupied, camps set up, films and records released to the public, gaining the support of all sections of society. The lessons learnt from this campaign must not be wasted.

### Background: The Plans for Alsace

The province of Alsace where the population is already three times as dense as in the rest of France is about to succumb to the industrial dream. Following the lead of Professor Etienne Juillard of the Geographical Institute of Strasbourg, economic and technical experts have studied, throughout the sixties, the basis for the 'economic take-off' of Alsace. Firstly, solid foundations must be established: accessibility, adequate water supplies, drainage, energy sources and a growing number of producer/consumers. Thus equipped, Alsace will become one of the links in the 'oecumenopolis' envisaged by the Greek town-planner, Doxiadis, along the Rhone/Rhine axis, from Rotterdam to Fos-sur-Mer by way of the Ruhr, and extending through Switzerland to Milan.

The Rhine, canalised as far as Lauterbourg, is an all-important navigable route. The canal needs only to be extended from Alsace to the Rhone to completely destroy the independence of the area and to turn Rotterdam, as a Parisian journalist has seriously suggested, "into a Mediterranean port". The number of motorways grows: the A36 to the south along the Rhone/Rhine

the German motorway (only twenty kilometres away but an intolerable provocation to French pride), and the B34 Strasbourg-to-Paris motorway.

Seemingly, as far as domestic and industrial needs are concerned, the Alsation phreatic layer, one of the main underground fresh-water reserves in Europe, should prove inexhaustible. Its growing pollution, however, is going to pose some grave problems in the years to come. The Rhine, a vast open-air drain, is used as an unrestricted and costless means of disposing of all wastes; it transports daily 18,000 tonnes of salt, a by-product of the potash industry in the Alsace mining basin, and already has mercury levels equal to those in Minamata.

Turning to energy, it is expected that the nuclear power stations planned at Fessenheim, Marckolsheim, Sundhouse, Gerstheim and Lauterbourg will meet the needs of this future 'Ruhr of Alsace', and provide a surplus for distribution elsewhere.

It has been forecast that the population of Alsace will double in 15 years, mainly through migration from the centre of France, a zone destined for depopulation, from the Mediterranean area, and from the axis, the A35 in competition with overseas territories (Réunion etc.).

Agriculture, evidently, is marked out for a complete transformation: 17,000 hectares of agricultural land is to disappear under layers of concrete and cement between 1970 and 1985; the President of the Chamber of Agriculture, has said himself that agriculture will become to begin with 'interstitial', existing between the links of the occumenopolis, before finally emerging as 'an agriculture without land' (stores of chickens, pigs, milk and meat), super-automatic, thanks to the super-abundant nuclear energy.

As far as the wilderness is concerned, there is evidently little point in discussing it in a programme of this nature, and so it was the nature conservationists who were the first to sound the alarm. They saw the environment becoming artificial and growing poorer at a terrifying rate: marshlands being dried out, forests razed, natural grasslands transformed into monotonous expanses of maize, rivers polluted and dammed or canalised. Others have followed: the anti-nuclear militants who denounce the stupidity of the peaceful atom, peasants who are defending their means of livelihood, in particular along the route of the Rhine/Rhone canal, and the A34 and A35 motorways, people who care about the villages which will be swallowed up, together with their way of life - still almost self-sufficient in the Sundgau region - and their spirit.

Confronted by these imminent dangers Alsace has headed the ecological battle in France since 1970, under the leadership of the young Antoine Waechter and Jean-Jacques Rettig. After the extensive popular campaign to protect the Vosges mountains, which gathered 40,000 signatures, it was in Mulhouse that Henri Jean, the first ecological candidate, stood for Parliament on a platform inspired by

A Blueprint for Survival. He obtained 2.9% (an estimated 1490 votes) of the poll. In Alsace, the Presidential candidature of René Dumont was followed enthusiastically and Dumont himself came to the area and spoke of world famine and of the dangers of the nuclear power station at Fessenheim; in some rural areas he gained up to 30% of the vote. Edward Goldsmith came and discussed the Blueprint at Mulhouse. Many young people went to the Larzac during the holidays to help in the construction of the farm at La Blaquière, on a site right in the middle of the future military camp, which will dispossess 103 native shepherds.

Across the Rhine, anti-nuclear militants are very active and they have gained solid experience of battle. They have succeeded, after three years of strife, in moving the Breisach nuclear power station 20km further north, to Wyhl. They are determined to continue the battle and prevent its construction at Wyhl. The Swiss, for their part, have been fighting the power station at Kaiseraugst for 7 years, which is a record. The attracting of younger people and contact with those in Alsace and Baden should give the movement the necessary impetus at a crucial time.

#### The Marckolsheim Affair

Nature conservationists are at present deeply worried about the fate of the last strip of the primitive Rhine forest, which covered 20,000 hectares twenty years ago, and which today only takes up a quarter as much. It represents one of the few remaining traces of the vast riparian forests which formerly extended along the banks of the Rhine, the Rhone and the Danube, and where an exceptional variety of botanic species (37) can still be found, ranging from the highest trees to the undergrowth. The largest area which remains is the Marckolsheim-Schoenau forest. which for the last thirteen years has been enveloped by a vast industrial zone. The conservation associations have pleaded in vain for the forest to be declared a protected zone and are resolved to fight to the last for this unique environment. After the announcement of the imminent installation of a C.W.M. plant (Chemische Werke

München), a motion to oppose this project was passed at a meeting at Mulhouse on April 28th, 1974.

The Marckolsheim affair was a success from all points of view. The C.W.M. had tried in vain to build a lead stearate factory at St-Avold, having already been rejected three times in Germany.\* Immediately it was known that the C.W.M. had found a site at Marckolsheim Emile Astaud and Alexandre Herrmann prepared a technical report, helped by M. Polo, a chemical engineer from St-Avold who was familiar with the problems of lead stearate (a powerful and uncontrol able powder \*Lead stearate is used as a binder in the plastics industry, especially in the production of PVC. which becomes incorporated into food chains and accumulates in living organisms until a critical level is reached, when they fall ill and die). In April 1974, the G.I.S.E.M. (Groupement d'Information pour la Sauvegarde de. l'Environment de Marckolsheim) was founded at Marckolsheim which kept the local population informed. Marckolsheim town council, having considered the report on the lead factory were not convinced that the scheme would benefit the area and rejected it by a narrow margin (11 votes to 10) in May 1974. On June 26th the Prefect of the Region M. Sicurani imposed the factory by Prefectoral decree. The eleven councillors resigned





publicly and denounced the 'Diktat' from central authority. On July 28th a major demonstration was organised at Marckolsheim attended by 100 tractors and 2,000 people. The idea of occupation was approved and preparations were made swiftly and silently. A circular was sent to around 500 conservationists asking for volunteers for the eventual occupation of the site. Fifty people sent their addresses and telephone numbers, including the Vice-President of the Association of the Haut-Rhine, Colonel Robert Muller. Thinking beyond the lead factory, the nature conservationists sought to quash utterly any idea of an industrial zone in the Rhine forest. They promised vigorous support to the occupation.

Opponents of the nuclear power station at Wyhl in Germany were equally concerned over the C.W.M. Their vineyards would be less than 2km from the toxic emissions of the proposed factory. On August 25th 1974, a major demonstration, the first to involve both Alsace and Baden, gathered on the proposed site of the nuclear power station at Wyhl deep in the Rhine forest. An historical meeting in the townhall at Weisweil culminated in a manifesto issued by the twenty-one associations engaged in the protection of the environment in Alsace and Baden who decided to occupy together the sites of the proposed

lead factory and power station. Leaflets calling for the occupation were printed in advance.

During September 1971, work commenced at Marckolsheim on enclosing the site. On September 16th during a decisive meeting, it became apparent that everyone, poised on the brink, was afraid to take the final step. They hesitated, retreated, made appeals to reason and respect for the law. At 11.30 p.m. after three hours of harrowing discussion. thanks to the obstinacy, courage and conviction of just one militant, Antoine Waechter, who was determined to save the Rhine forest, the decision to occupy was carried. Until that moment the whole affair had hung by a thread. That Waechter's determination should carry the meeting shows how much stronger is the love of nature than the fear of a threat to health, even one as grave as that posed by the lead factory. Men will always do more to defend what they love than simply to repulse an enemy.

The time and date remained secret. It was thought prudent to avoid telephone communications. The operation was planned to begin at seven o'clock on Friday morning, September 20th, 1974 for two important reasons:

As it was the last day of the working week, there was a good chance of the workmen being sent home a few hours early or even to work elsewhere that day. The first press reports would appear on Saturday and Sunday and so reach sympathisers far and near who would be invited to an important meeting of support on the site on Sunday so that news of the occupation would spread as quickly and as far as possible.

During the Thursday night members of the associations distributed the leaflets throughout the district, to those who had sent their names and addresses, as well as to neighbouring towns.

At seven in the morning, a pair of tents – pitched by two women – and ten to twenty people had arrived on the site. By ten o'clock this had grown to 100 and others were arriving continually. The telephone was in constant use in alerting national press, TV and radio. At one o'clock, thanks to our friend, Jean Carlier, R.T.L. announced the news.

Relations with the workers were friendly and polite, but firm. As foreseen, the workmen were sent home, perhaps to return on Monday when the company had formed a clearer idea of the way the situation was developing.

Important people from Marckolsheim were there, among them the dissenting councillors. Since no complaint had been made, the police had no need to intervene, although of course they were there, both in uniALSACE N'EST S UNE POUBELLE

form and plainclothes. Owing to the discipline and the calm of the demonstrators, there was not the slightest incident which could have justified police action.

At the big meeting on Sunday, September 22nd, several thousand people took part. Teams of two militants, one of whom could speak the Alsace dialect, were sent to every village and spoke to as many people as possible — going from door to door, stopping those leaving church, entering restaurants asking these two questions:

Do you know what is actually happening at Marckolsheim? Are you for or against?

Their replies were not important as these questions served rather as a means of increasing their awareness, arousing their curiosity, and the desire to see the site for themselves. At the camp, hastily constructed notice boards were already full to overflowing with material, especially on the lead problem. "In 1974, a forest is worth more than an industrialised zone" said one poster. From Monday, leaflets were available for visitors and distribution in factories, offices, the University and schools.

From the first Monday the fight was almost over. The workmen returned but 50 tractors from Alsace and Germany blocked all roads leading to the site. Village representatives were allotted to each village and a guard was mounted. In the event of police intervention, an emergency plan would be put into action; alarm bells and fire sirens would alert the local villagers.

A sympathetic local population, whose support was gained in the first instance through their fear of lead poisoning, was necessary if the occupation was to succeed. Meetings were organised by the village representatives every evening, each one in a different setting: town-halls, schools, restaurants. It was planned to make a 8mm film of the events on the site so as to have a permanent record.

On September 26th, on the occasion of the visit to Alsace by the Minister of the Environment, the Prefect, fearing trouble, closed the Sasbach Bridge to German militants. The latter blocked the frontier at Sasbach and Breisach and provoked an international incident with the intervention of the Federal Government at Bonn: an excellent opportunity for publicising the Marckolsheim affair throughout Germany (national press and radio).

On October 11th, in the next elections at Marckolsheim, the new council, elected by an overwhelming majority, was entirely in support of the occupation. The new Mayor's press conference was called on the occupied site — a novel way of ensuring coverage by the mass media.

At the beginning of November, there was unofficial news that the Government would not approve the C.W.M. plans. The demonstrators demanded written proof before vacating the site, and the occupation continued, albeit in a reduced form; as police intervention was no longer to be feared, guard duties were relaxed. Every Sunday a demonstration was organised and other events on the site included theatre; songs; an exhibition by the nonviolent Spanish artist Francisco Lezcano in the communal centre, the roundhouse; exhibitions on world hunger, on the ethnocide of the Amazonian Indians, on peasant farming in France; the visit of Lanza del Vasto; and Christmas celebrations. In the New Year there was a fast for three days to show solidarity with the Third World. Nestor, a young wild boar, was brought to the site and settled down to become the camp mascot. The winter was not too severe and the wooden buildings were well insulated, but those in tents needed four sleepingbags wrapped around them to keep warm at night.

The conservation associations put their objections to the proposed Marckolsheim industrial zone before the Administrative Tribunal. Sixteen local landowners agreed to lend their support to this action and simultaneously, a petition 'Rhine Forest SOS' was started.

Finally, on February 25th, 1975 the French Government officially announced that they could not approve the siting of the C.W.M. plant at Marckolsheim; a little later peasant farmers sowed four hectares of spring wheat on the site. On June 6th 1975, the Administrative Tribunal put an end to the plans for an industrial zone of 884 hectares in the Marckolsheim-Schoenau forest. The associations are now preparing a report requesting protected status for the forest. The Wyhl Affair

The Germans stayed until the last day of the Marckolsheim occupation. They brought the Alsations up to date with the nuclear power situation in Germany and Alsation associations participated in the events at Wyhl. After the victory at Breisach plans had been made to build the new power station at Wyhl. The same campaigners returned to the fray and collected 100,000 signatures against this new site, of which 60,000 came from the Kaiserstuhl. The vinegrowers from the Kaiserstuhl (a volcanic massif rising from the alluvial plain of the Rhine) are a resolute and determined people An official public enquiry was held at Wyhl, but those opposed were denied the right to speak and walked out en masse leaving the floor to politicians, technocrats and the police. On January 6th, 1975 a vote was taken at Wyhl whether communal land should be sold to the Badenwerke company, and of course only the bourgeoisie were consulted. They were promised swimming pools amongst other things and threatened with compulsory purchase whereby they would be denied the right to fix their own price if they refused to sell. Wyhl accepted the sale of the land by 55% against 43% of the vote, a majority of 274. A huge demonstration took place on January 26th at Weisweil, the neighbouring town, the high point of the resistance, and the police adopted a policy of intimidation by means of identity checks and searches. The German officials wavered and the occupation plan was seriously reconsidered.

At the end of January defence committees and 17 local councils lodged a complaint at the Freiburg Administrative Tribunal against the building of the power station which would be injurious to agricultural interests and the health of the people. On February 2nd Wyhl sold the land to Badenwerke for 2 million DM.

On February 17th, 1975 work began in the forest around Wyhl: trees were felled and an access road was constructed. The associations called a press conference to which every agency and every active committee member was invited. Although no order had been given for the occupation, the groups from Baden and Marckolsheim had all brought tents. During the press conference, at which attention was again directed towards the 100,000 opposing signatures and the

pation spread like wildfire; since the international press were on the spot, the first official statements were sent out by telephone. People came from the whole region. That evening around 50 tents could be seen in the forest and a canteen and lavatories had been organised. The police remained but the squatters considerably outnumbered them. The State Governor of Baden-Württemburg, Dr. Person, came in person to the area, he refused to speak to the demonstrators, but stated in an interview with French television that the Government had decided to restore order by force.

On February 20th, at 5 a.m.,

SON	IG:
	My Alsace, My Heart Bleeds for You
	My Alsace, my heart bleeds for you
	They are covering you with filth and with concrete
	My Alsace, give me your hand
	Let us stop everything
	And start again from scratch
	The * * * of Fessenheim with their big scissors
	With their new nuclear power plant
	Are building a Hell better than the devil could
	The Rhine is a dustbin the fish drown in it
	Minamata is no longer far away
	It is really time to react
	Valley of Munster, green valley
	The shark's don't give a damn
	If your milk gives us stomach ache
	Find a hole to hide yourself
	Get into the swing let them go to hell
	See how we dance
	The land of Alsace is not for sale
	From Marckolsheim to Wyhl
	A breeze has started to blow
	Everywhere it bears the same refrain
	No to CWM, no to nuclear power stations.
	Francis Keck
	Translated by E. Goldsmith

complaint lodged at the Administrative Tribunal, some Alsatians pitched the first tent in front of a bulldozer which had been immobilised when some women from Weisweil had climbed onto it. Things were moving and the more timid had only to follow. Every machine was shut down, the power saws were stopped. The Badenwerke company having complained about the trespassing on their property, the police soon appeared and requested, in vain, that the area be cleared; being in a minority, they elected not to intervene. News of the occu1,000 policemen from the special riot-control squad (white helmets, riot sticks, shields) surrounded the forest, cutting off all means of access. They converged on the clearing where the demonstrators were sitting around the fire. Called on to move out, the squatters linked arms and sang "Wacht am Rhein". Armoured trucks with water cannons moved into position and the police asked all the women and children to leave. This request was ignored and the water cannons went into action: the demonstrators, including women and children, were soaked with icy water but continued to sing. The police dragged 54 demonstrators into their vans, choosing the youngest and, where possible, the bearded and longhaired. French T.V. filmed the entire incident alongside a brave young cameraman from German television. The remaining demonstrators were forced to leave the area.

News of the violent eviction spread like lightening throughout the Kaiserstuhl and every village was in turmoil. People gathered outside the police barricades and welcomed the soaked and freezing demonstrators. There were stirrings of anger but everyone exercised self-control and refrained from violence.

The workmen returned, and, with the police, put up a fence to enclose the disputed area. The bulldozers and power saws then went back to work. On February 21st the committees convened a general assembly outside the fenced site which now looked like a concentration camp. 5,000 angry people marched up and down in front of the barbed-wire fence which was guarded by police dogs and patrols every 10 metres. A major demonstration was called for Sunday February 23rd. The news reached all Europe by radio and television, and through the unofficial network of associations and committees.

On Sunday February 23rd, first thing in the morning vehicles arrived from all over Germany. Important anti-nuclear delegations came from Austria, Holland, Belgium, Luxembourg and Switzerland. In the Kaiserstuhl, columns of cars choked every road, even the motorway was jammed and many late-comers were unable to reach Wyhl. According to police reports, 28,000 demonstrators were gathered along the banks of the Rhine, facing the barbed wire and 1,000 policemen. No official word had yet been given, but the people of the Kaiserstuhl were determined to use to advantage the favourable ratio of forces. At 2 o'clock, a decoy group secretly gained access to the area opposite the demonstration. This group - made up of children, grandmothers in traditional dress and non-violent militants hoped to distract the police; the manoeuvre succeeded and the demonstrators everywhere broke

through the fence. The members of the associations strictly complied with the orders of some 200 marshals and there were only isolated acts of violence perpetrated, regrettably, by some outsiders well-known for picking fights. The police, too, abided by the order for calm and, remarkably, two of their own companies refused to come to their support.

The demonstrators immediately settled in and by that evening 50 more tents were in evidence. But everyone was uneasy; the mass of supporters returned home, and unEcological Movement, declaring solidarity with the Wyhl occupation and the anti-nuclear movement.

On March 9th, a large circular building with a kitchen attached, modelled on the roundhouse at Marckolsheim, was finished at Wyhl. Discussion evenings with film shows were organised and publicised in every village and a guard was mounted with teutonic thoroughness. The Alsace contingent participated in all the meetings and in the organisational work.

On March 21st the Freiburg Tribunal decided that work could not

### SONG: Mr. Minister Mr. Minister, there's something I'd like No doubt you'd like a decoration? Oh no, Mr. Minister, oh no Oh, what an odd Minister I have Who can't guess what it is I'd like Mr. Minister, there's something I'd like No doubt you'd like a lead factory? Oh no, Mr. Minister, oh no Oh, what an odd Minister I have Who can't guess what it is I'd like Mr. Minister, there's something I'd like No doubt you'd like a nuclear power station? Oh no, Mr. Minister, oh no I'd like water without poisons And clean and healthy air Mr. Minister, there's something I'd like Eh, you'd like a muzzle?

Oh no, Mr. Minister, oh no I'd like to be able to speak my own language And keep my country beautiful and natural

> Jean Dentinger Translated by E. Goldsmith

founded reports circulated encouraged by cooked-up police messages picked up on pirate radio receivers. It was only on Sunday evening that the Government let it be known that they had provisionally decided to take no further action at the site until the Administrative Tribunal at Freiburg had given a ruling on whether work could begin before the complaint lodged by the defence committees and the 17 councils had been studied. Protests were sent to German Ambassadors in Bern, Vienna, Rome, Paris, Luxembourg, Brussels and the Hague by members of the European

begin on the site until the complaint from the committees and the 17 councils had been considered. The Badenwerke company appealed to the Mannheim Administrative Tribunal but the Government decided to abide by the Freiburg decision and provisionally to stop work at Wyhl. This interval was to be used for a massive pro-nuclear propaganda campaign: 10 million DM were set aside to "inform" the public through the press, radio and television, and through the issuing of specialist pamphlets designed for teachers, for trade unions, for farmers etc. The Government hoped that pro-



longed inactivity would encourage boredom and internal disputes among the demonstrators.

On March 31st, Easter Monday, a vast international demonstration attended by 16,000 people was organised in support of the Wyhl occupation. Events took a sensational turn when the Swiss delegation invited the demonstrators to support those opposing the Kaiseraugst nuclear power station, who had decided to occupy the site that very evening. They had even brought banners proclaiming in letters: large "KAISERAUGST OCCUPÉ". A coach was immediately organised on the site; others went to find their tents and set off for Kaiseraugst.

### The Kaiseraugst Affair

Opposition to the Kaiseraugst nuclear power station began in 1969. The residents there rejected it in 1973 in a referendum by 279 votes After the canton of Argovie had accepted the scheme the Kaiseraugst community, together with others in the region, registered a complaint with the Administrative Tribunal. The Administrative Tribunal rejected this complaint and an appeal to the Federal Tribunal was also rejected. Although no legal avenues remained open and officially the matter was closed, opposition did not cease to grow among the half million inhabitants of the region. On September 19th, 1974, a demonstration was organised at Kaiseraugst and was attended by those occupying the Marckolsheim site, who spoke of their campaign. From that moment on, the Swiss

came regularly to Marckolsheim and later to Wyhl where they gained valuable experience.

On April 1st, the site was occupied. There were almost as many from Alsace and Baden as from Switzerland itself. The workmen arrived at 7 a.m. and found their machines had been immobilised by the demonstrators; tents had been pitched in front of them' and women were sitting in the driver's seats. Events were reported by international press, radio and television, whose reporters had come straight from Wyhl the evening before. The following Sunday, 16,000 people from the region braved rain, snow and a freezing wind to show their support for the occupation. A petition to the Federal Council was drawn up and in a few days more than 16,000 signatures had been collected. Groups in support of the occupation were formed throughout the region, in the University, and in the technical schools. The canton would willingly have had the police intervene but had only 234 men at their disposal. In response to a call for help to the 24 other cantons only 22 men were sent, 13 from Vallais and 9 from Geneva. This left the army whose intervention comes under Federal jurisdiction but, it was considered unlikely that family men would wish to take up arms against women and children. Should the military intervene, a plan was devised whereby a group of small girls would run towards the soldiers crying "papa, papa".

On April 25th, a major demonstration took place before the Federal Council building in Bern with 18,000 people participating who had come from all over Switzerland, particularly from around the sites of the proposed nuclear power stations. Groups in support of the anti-nuclear campaign were formed in the universities and polytechnics both in Zurich and Lausanne, with the creation of working parties studying alternative technology.

A settlement between the demonstrators and the Federal Council was reached whereby work on the site would cease entirely and all fences be removed while the situation was discussed; the occupation was called off and all the equipment dismantled and put in storage. Although the demonstrators had won the first round, the problem remained and would be re-opened in September, at the end of the summer holidays.

### **Backgrounds and Beliefs**

The resistance at Marckolsheim, Wyhl and Kaiseraugst brought people from very different backgrounds into contact. Firstly, conservationists who had fought for years to preserve the forest on both sides of the Rhine. They were by nature extremely traditionalist but, having exhausted all conventional channels – petitions, marches, reports and proposals – they were driven to accept the idea of occupation.

Lead stearate wastes are undeniably toxic and local populations rightly felt endangered. The Professors of Toxicology and Pharmacology Strasbourg at publicly warned of the risks and explained how lead accumulates in the body (in fat) and the illeffects incurred, in particular by young people, through the ingestion of milk. Respected citizens joined the opposition to the C.W.M. - vets, pharmacists, dentists, even the vicar - and after some hesitation took part in the occupation. The people of Marckolsheim and of the neighbouring areas were, on the whole, solidly behind the decision to occupy; this enabled the movement to face the authorities at Strasbourg and to counter ill-informed public opinion with greater confidence.

Thanks to the efforts of Dr. Siegel,

the vet, and future mayor of Marckolsheim, the Alsace peasants were mobilised. Dr. Siegel told them that if this factory came to the area he would not be able to guarantee that their milk, meat, cereal crops and vegetables would be free from contamination. From the first day, peasants with tractors, from both sides of the Rhine, took part in the occupation. They agitated for official support from their trade unions. At Wyhl the vinegrowers were totally in favour of resistance, in particular because of the catastrophic modifications to the climate which would be caused by the immense cooling towers; because of the tendency to temperature inversion in the Rhine valley, these towers could lead to 270 days of fog per year. This would definitely be injurious to the grape-harvest and the peasants ran the risk of losing their means of livelihood. They decided to fight to the last.

From the first, non-violence was the hall mark of the resistance. This would not have been possible without the precedent of the nonviolent struggle of the peasants of the Larzac, a victorious struggle of which Lanza del Vasto, its initiator, spoke at Marckolsheim: "You have neither wealth, nor strength, nor power, but you do possess truth, justice and courage. These are the weapons that will overcome strength and power. We of the Larzac were only a handful at first. By last summer we were 190,000 and now victory is ours.



If you have the courage to stay here through rain and snow, you too will succeed." Lanza del Vasto Shantidas, a former friend of Gandhi, preached to Protestants and Catholics around Marckolsheim, met with the Bishop of Strasbourg and spoke of non-violence and the ideals of poverty and toil which he had developed with his comrades of the Ark on the plateau of the Larzac.\* From the beginning every kind of nonviolent militant participated in the at Marckolsheim: construggle scientious objectors and members of the M.I.R. (Mouvement International de la Réconciliation). Their influence upon the demonstrators was great. They organised, first at Christmas and later on May 1st, two fasts of three days each in protest against nuclear power; one hundred people Marckolsheim, Wvhl at and Kaiseraugst participated. Their presence made possible the peaceful development of events at Wyhl in February. When one of their number, Raymond Schirmer, was tried by the army at Metz\*, a whole coach load of people - peasants, workers, students, mothers, even a grandmother of 85 travelled 140 km to testify in the cause of non-violent civil disobedience.

The presence of women among the demonstrators has also greatly influenced the course of events. They were there from the start: the first two tents at Marckolsheim were pitched at 7 o'clock by married women. Madame Siegel, 70 years old, was there day after day at her table gathering signatures, 11,000 in a few days.

A kitchen was set up and every day the demonstrators were met by substantial hot meals, prepared by a rota of mothers. The women had no need to fear for their jobs, if things turned out badly, or even if they were arrested, and they were free to occupy the site at any hour of the day. They brought snacks and spent whole days with their children. their knitting, their crocheting; Madame Fehrenback, a dressmaker, \*The community of the Ark was founded in 1944, and now more than 100 people live on 2,000 acres south-west of the Larzac. They are largely self-sufficient and enjoy a simple peasant life.

\*For refusing his military service. He claimed that his activities at Marckolsheim were a valid alternative. even brought her clients' dresses to finish around the fire. A complete revolution in attitude had taken place, above all amongst the peasants where women traditionally stay at home and outside matters are left to the men. To break out from this isolation, determined women have organised 'meetings exclusively for women'. The success exceeded their wildest expectations.

On March 31st, Annemarie Sacherer, a young woman from a vinegrowing family, addressed 16,000 people at Wyhl in these words:

"The women from the Kaiserstuhl are united in a common cause. They have said: politics and the quality of life are not solely the concern of men. It is high time that women realised that there are matters more important than housekeeping and tending the vines. It is obvious to everyone at the moment that the health of our families and the future of our children are at stake. These last months have shown us that we are on the right path. We have not forgotten the thalidomide tragedy. We all know what happened to the deformed children and their families; their silence has been bought by the manufacturers. So that we shall not suffer a similar fate, we must defend ourselves against the nuclear power industry, which puts our health at risk".

At Wyhl, the presence of these women and their children, large and small, had without a doubt a great influence on the events in February. Faced by policemen who were both armed and helmeted, mothers and grandmothers called out: "Look here, we can't talk to you while you're wearing those helmets. Take them off and we'll talk. We aren't revolutionaries in the pay of some power or outside agitators. We're simple women thinking of our future and our children's future. Take off those silly uniforms and join us. What do you need those riot sticks for? Are you going to use them on our young daughters?" Two companies of policemen refused to take action against the demonstrators and their officers ignored the orders from the headquarters at Freiburg.

At Kaiseraugst, the women played their part from the beginning. They took charge of the occupation while the men were at work during the



mornings and early afternoons. Reporters who came hoping to see young leftist revolutionaries were astounded to find groups of knitting women, who chatted to them and offered coffee and home-made biscuits.

### **Camp Life**

Many kinds of people joined in occupations. Local popthese ulations, who lived in nearby towns and villages, formed the basis and very rapidly organised themselves so that the work, which was distributed fairly, would disrupt their lives as little as possible. Occupation plans were approved in a general assembly and each village undertook guard duty for half a day every day, and later at Wyhl, for a whole day every fortnight. Villages where there were few volunteers joined up with others. Each village was responsible for the running of the camp during its period of guard duty. Local people vinegrowers, peasant-farmers, fishermen - brought building materials and helped construct the communal centre, the roundhouse, which was first successful at Marckolsheim in November and copied later at Wyhl and Kaiseraugst (16m in diameter at Marckolsheim, 24m at Wyhl). Built on a frame of young trees, the structure allowed people to gather in informal groups or for meetings around a central fire, the smoke from which escaped through a circular hole in the roof. A snack-bar in one corner raised money necessary for the purchase of materials and the upkeep of the camp. Women from the villages took charge of the kitchen, knitted, read, played with their children and supervised their homework.

Each village was responsible for the circulation of information by the most expedient means. A delegate

### Roundhouse outside . . .

was chosen in each one to represent them at the meetings where communal decisions regarding future actions were made. Every village had its own warning system and, in case of emergency an alarm bell and fire siren were sounded. and everyone would leave their homes with all their vehicles cars, tractors - to block the roads and go to the aid of those in the camp. The nearest villages were the most active. In the towns students and members of the defence committees formed into groups who also shared in the guard duties.

On Sundays and holidays, there were regularly several thousand visitors to the sites. These were both sympathisers to the cause from far away and the curious, who came to find out for themselves, or simply as a result of a story in the press or on television. Most spent a few hours on the site and then returned home. In order to raise funds for the occupation a special snack-bar was set up for the visitors and the women brought cakes and biscuits to sell. The information desk played a major role: it was run by people particularly qualified to answer questions put by an uninformed public and to hold their own against hecklers sent by the administration or the companies involved. Free leaflets were available and collection boxes were in use. Specialist publications could be bought and the camp newspapers Nous "Ce Oue Voulons" or "Was Wir Wollen" regularly reviewed the situation and published contributions by the demonstrators on the issues raised by the nuclear power stations and the lead factory.

Each camp had a small permanent nucleus: the unemployed, conscientious objectors, and students who had temporarily given up their studies. This assured a certain continuity: the information desk and snack bar remained open during the week. These people were responsible for keeping the camp in order, they also planted vegetables and often helped the peasants in

... and inside



the fields during the day.

Others came when they were able: active members of the associations or simply individuals like Dr. Meyer of Ribeauvillé, a dentist of 60. When interviewed on television about his presence on the site, he said: "Well you know, dental ailments aren't fatal and I have colleagues who are perfectly happy to see my patients. I am an old man and have no need to work as I did in the past." He would shut his surgery for half a day several times a week to join the occupation. He installed the henhouse at Marckolsheim and, being a jack-of-all-trades by nature, he always found something to do or mend.

Throughout the holidays visitors, in cars or hitch-hiking, arrived from all over Germany and pitched their tents on the Wyhl site for a few days. In the main, they were anti-nuclear militants who came to learn from the experience of occupation. The demonstrators have great hopes of these people since, if the experience of Marckolsheim, Wyhl and Kaiseraugst is to be of long term value, it will be by forcing governments to change their attitude to the nuclear power menace, which goes far beyond these three regions.

### Birth of a New Culture

The occupied sites at Marckolsheim, (5 months), Wyhl (9 months), and Kaiseraugst (3 months) have witnessed the birth of something completely new: a profoundly different attitude has been forged.

Here at last, the barriers which separated town and village, young and old, men and women, workers and peasants collapsed. Everyone had the time to speak to his neighbour and the wish to communicate his hopes and fears. Everyone came with his own cultural and ideological background and found himself confronted by totally different viewpoints. Fixed values were questioned, new horizons opened and a friendship and sympathy developed in the course of the days of shared experience.

Both the Alsace and Baden peoples discovered the brotherhood which existed between them. The villages around Sasbach and Weisweil (Baden) speak almost the same

dialect as those around Marckolsheim. The greater the distances between them, the more the dialect differs but always it is Alaman. This is equally true of Kaiseraugst where Baden people are not easily distinguished from the Swiss on the other side of the Rhine. During the protest on the Sasbach bridge over the closing of the frontier by the Prefect, a municipal workman at Wyhl said: "I think that there is something positive to be learnt from this conflict in which we are involved. We have discovered anew that we are brothers, and it is our language which has proved it to us; a language which can be understood neither by those in Paris, nor those in Bonn or Munich, but that is understood by all of us who live in the Alaman region; a language varied enough to express all our shades of meaning." And in the words of Walter Mossman, the Freiburg singer: "Only dialect can express the living contradiction between the frontiers of nation-states - frontiers which separate two national languages, French and German - and the kinship which unites the populations of Alsace and Baden. It is here that Governments have drawn the Maginot line and the Siegfried line. Each has declared that on the other bank of the Rhine dwells the hereditary enemy and they have inflicted upon each other war, evacuation, destruction and death. The frontier zone was for each side a no mans land. But on both sides of the Rhine the people understood each other, were related, friends, lovers, lived in the same conditions . . . and spoke the same tongue."

At Marckolsheim Mossman wrote his "Wacht am Rhein" ("Garde au Rhin"):

En Alsace, et au Pays de Bade/ longtemps nous avons souffert./ Pour nos chefs, à la guerre/ nous nous sommes entretués./ A present c'est pour nous,/ qu'à Wyhl et Marckolsheim nous nous battons./ Ensemble nous montons ici/ une nouvelle garde au Rhin.\*

### Songs

From the start of the occupation at Marckolsheim, the associations had called for volunteers to entertain those gathered around the fire during the evenings and on Sundays. To quote Walter Mossman again:

"Finding ourselves threatened by destruction and chaotic planning, we took steps to defend ourselves, and found that we were capable of fighting back. And in doing so, we ceased to accept a culture which we found stultifying and abstract and created our own - a living culture of films, photos, papers, posters and also our own songs.

And these do not speak of a 'modern world' to be seen only in shopwindows and on television, but of the real world. Around the camp fire at Marckolsheim, the nights were always long and the later the hour, the more we sang. The songs were as different as the people who were there: popular songs, famous melodies, folk, protest songs, old refrains from military service or peace songs. But when anyone sang of the fight against the lead factory or the nuclear power stations, everyone listened: the song was copied, it was printed on broadsheets, it was improved, couplets were added - above all it was sung. Groups and songwriters from Alsace already have a stock of such ballads, as well as popular songs which can be modified to serve the cause. This is a new thing for us."

Mossman is a professional writer of political songs who has just discovered the Ecological Movement he was one of the first to join the occupation at Marckolsheim. He has used his immense talents unstintingly to further the cause of Marckolsheim and Wyhl. His "Garde au Rhin" is a veritable epic of 13 verses, about the resistance against lead pollution and nuclear energy. He is also the writer of the "KKW\* Rag". He has adapted old popular songs to the current situation e.g. "In Mueders Stuebele". At the beginning of November 1974 a record was released, recorded in the camp at Marckolsheim, and the sleeve traced the story of their fight against the lead factory. Several thousand copies

<sup>\*</sup>In Alsace and Baden/ we have suffered a long time./ For our leaders, in the war/ we killed each other./ At the moment for ourselves/ at Wyhl and Marckolsheim we are fighting./ Together we are mounting/ a new guard on the Rhine.

<sup>\*</sup>Kernkraftwerk = nuclear power station.

were distributed very widely. In February, the first L.P. came out, recorded in the roundhouse at Marckolsheim by groups from Alsace and Baden. The promotion of the record took place at a large festival on the Wyhl site at which the singers were present and gave free performances.

#### Theatre

'Les Musauer Wackes', a streettheatre group from Strasbourg, came to Marckolsheim to perform its latest play, The Sad Story of M. Rosenthal', in which one saw huge and grotesque effigies of the Prefect, M. Sicurani and the President of the C.W.M., M. Rosenthal, ridiculed and expelled from Marckolsheim. A little later they created another more elaborate and more general play at Wyhl on the auction sale of Alsace to international investors by its elected representatives and the growing popular resistance. The principal characters were two peasants speaking in dialect, the husband always mistrustful, talking only of his two cows and considering how events will affect them; the wife dazzled at first by the prospects of jobs and floods of money, but later to take on the leadership of the resistance. One could recognise real people from Marckolsheim: the towncouncillor who prepared the technical report on pollution from the lead factory, the woman who toured the villages keeping everyone informed. Later on, a group from Freiburg came to Wyhl and created a play about the nuclear power station in which the administration and the elected representatives were held up to ridicule and shouted down by delighted spectators.

These meetings between singers, poets, and amateur actors, at Marckolsheim and later at Wyhl, led to the creation in the autumn of 1974 of the Alsace Cultural Front which from the start took a very radical position on the future of Alsace: against the spreading concrete, the gigantism, the growing artificiality of the environment, the disappearance of Nature and regional character.

At Kaiseraugst there were similar developments: the political singer Ernst Born and his comedian friends



created a whole series of songs in the camp and performed sketches inspired by real events. All the songs were printed and widely distributed. Poetry and protest songs were heard at every public demonstration. Thus, on March 31st at Wyhl, the peasant poet Ernst Schillinger concluded a long poem with these lines:

"C'est pourquoi nous ne devons perdre ni le courage ni l'espoir,/ ne pas jeter notre fusil dans nos champ ni nous resigner./ Celui qui ne pense qu'à son propre profit/ qu'au profit à court term,/ celui là perd pour toujours/la chance de conserver belle sa patrie./ C'est, pouquoi, chaque jour davantage,/ venez renforcer la résistance,/ jusqu'à ce que nos adversaires abandonnent le combat/ at comprennent, qu'il n'y a plus rien à gagner à coups de violences/ Car les enfants des Alamans sont chez eux sur les bords du Rhin./ Nous avons fait plier les genous/ aux partisans du nucléaire à Breisach./ A Marckolsheim, c'est la résistance/ contra l'usine de plomb qui a gagné./ Et si tout le monde s'engage,/ nous attendrons notre but:/ de l'eau propre, un air pur et pas de centrale nucléaire à Wyhl."

The People's University in the Forest of Wyhl

Seeking worthwhile occupations the students on the camp initiated a cultural and educational programme, which they called, 'The People's University.' A very rich and varied programme was run every 15 days and advertised on the site and in the surrounding villages.

- Monday: problems of nature conservation,
- Tuesday: nuclear power and associated problems: health, industrialisation.
- Wednesday: travel lectures with slides (Alaska, the Camargue).
- Thursday: problems of agriculture: beekeeping, vine growing, fruit, vegetables.
- Friday: poems, songs, music, history of the local culture.

This programme was followed by the local villagers and by the demonstrators. The courses, arranged by students, university professors, nature lovers and naturalists, were held in the roundhouse at 8.30 in the evening. Usually at least 30 people attended and participated in animated and open discussions after the talks. In May 1975 the organisers were surprised to receive an official letter of support from the very sober German Federation of People's Universities.

Educational activities at Kaiseraugst mainly took the form of daily talks on the problems of nuclear energy for the visitors to the site. Students from the Federal Polytechnic in Zurich mounted a very beautiful open-air exhibition of soft technology. The walls of all

<sup>\*</sup>This is why we must lose neither courage nor hope,/ must not throw down our arms or give up./ He who thinks of his own profit,/ or profit in the short term,/ loses for always/ the chance to keep his country beautiful./ This is why, with each passing day/ we must redouble our resistance,/ so that our adversaries give up/ and come to understand that there is nothing to be gained by violence./ For the children of Alaman have their homes on the banks of the Rhine./ We have brought to their knees/ the supporters of the nuclear power station at Breisach/ At Marckolsheim, the resistance/ against the lead factory has triumphed./ And if everyone takes up the fight,/ we will gain our end:/ clean water, pure air/ and no power station at WyhL

buildings, in particular the roundhouse, were covered with notice boards for the attention of visitors.

### Reasons for the Success of the Opposition

In the face of power and economic pressure from outside how have the local people put up such a fight?

In this struggle for life against pollution and the destruction of Nature in the name of profit, those opposed had the full support of a public which had been made sensitive by recent disclosures. Aware of the very real dangers of the lead factory and the nuclear power stations, they were conscious of the need to defend their way of life and the future of their children against this menace, in short, to fight for the common good. They appealed in this campaign to that constitutional right which guarantees to each citizen life and health, even where it conflicts with the state and its pronouncements, and with civil and commercial law. In a crisis of this magnitude, the law must take second place. "Laws have been made to serve man, not man the law", said François Burnier, in an interview on Swiss radio on April 2nd 1975. At Wyhl Francoise d'Eaubonne recalled the Declaration of the Rights of Man and of the Citizen: "When the State infringes the citizen's inalienable rights. insurrection becomes his most sacred duty."

This conviction of being in the right is the foundation of the militants' courage. A certain moral courage is necessary to break so many laws: to trespass on private property, to refuse to obey the police. A certain physical courage is necessary to sit down in front of bulldozers, to sit down in front of armed and helmeted riot squads. But this courage paid off. There were only a few bruises at Wyhl during the confrontations with the police and with some workmen who were determined to unload a lorryload of bricks in spite of the fact that militants were sitting at the back of the lorry. This willingness to resist to the last whatever the cost made a strong impression on policemen and workers on the other wide. and no doubt was a major factor in

avoiding other such incidents, and preventing the police – well aware of the demonstrators' determination – from resorting to force.

The participation of all sections of the people was another guarantee of success. The other side continually tried to play down the opposition, but it was impossible when so many women, old people and children from all over the threatened regions were involved.

Publicity too was crucial. Those involved in this bitter struggle needed to have the maximum support from the outside world. They had to be able to call upon the mass media and use to the full the network of friendly associations. Information had to reach the outside world without hindrance, through leaflets, press bulletins, photographs, and large public demonstrations.

Thanks to the European Ecological Movement, the events at Wyhl and Marckolsheim were very quickly known throughout Europe, and after the police intervention at Wyhl, representations were made in the shortest possible time to German Embassies throughout Europe culminating in public protests being made by local ecological movements to the Ambassadors themselves.

The continuing occupation of the sites, providing both a permanent base from which events could be recorded and a meeting place for the opponents, was a considerable factor in making the entire region aware of the situation. Very rapidly, support groups were organised in every locality and discussions on nuclear power and industrial society took place in trade unions and political parties, solely because theywere made aware of the awkward implications of an occupation which had lasted so long.

Communication with other battle fronts near and far was also fundamental. The occupation at Wyhl sent representatives to anti-nuclear demonstrations at Braud and St.-Louis (Bordeaux) at Gravelines (Normandy) and in the Midi. Dozens of copies of the film of the occupation were circulated in France and Germany. The people of

### SONG: The Peasant The peasant returns from the fields The Engelus rings The sun has set It is time for Vespers He comes to the Church square Where has the Church gone? Where is its old steeple? In its place, there is a concrete block He no longer knows where he is The village is no longer the same The people have all changed The lime trees have disappeared The stream has dried up Around the green, there are little houses The peasant feels like crying At the well, the chain has rusted Everyone has problems How can the children still sleep? At the bistro, nobody laughs anymore They all look so terribly glum The peasant no longer dare go in The peasant wants to go back to the fields Across the fields there is a motorway . . . . Francis Keck Translated by E. Goldsmith

Braud, St. Louis and Gravelines, in their turn sent representatives to the occupation and the mass demonstrations. There was no reason why what had succeeded once should not succeed again.

### **Evolution of Ideas**

A prolonged resistance like that of Marckolsheim, Wyhl or Kaiseraugst calls into question far more than any single project, like a lead factory or a power station.

1. Political Leadership: - Alsace and Baden are traditionally conservative and catholic: they vote U.D.R. and C.D.U. with overwhelming majorities. And these people have been sold by the authorities to foreign companies and the atomic power industry. The Germans were stupefied by such collusion between political and economic power: President Felbinger is on the board of directors of the Badenwerke company, and likewise Eberle, his Minister of Industry. It should astonish no-one to find that the profits of this company carry more weight than the interests of the farmers on the Kaiserstuhl, however steadfast their party support. As Annemarie Sacherer put it:

"Politicians in Stuttgart wish to impose on us, by law, an atomic cuckoo's egg, knowing full well that they will not have to bear the consequences of their actions. They are defending the interests of big business - that much is clear to even the most naive among us. During the brutal eviction from the Wyhl site on February 20th they let their masks fall. At that moment we became aware that democracy was in a sad state in our country. Honest citizens, men, women and children, are treated like criminals, simply because they defend their homeland against a misguided project. To speak the truth is to be seen as a member of the extreme left. Our leaders in Stuttgart should come to realise that their siege is beginning to weaken. They should use the time that remains to them for reflection and accept the consequences with Christian humility. Recent events have taught us that we cannot count upon our elected representatives. For that reason, we will fight as long as we have to."

It was the same in Switzerland and Alsace. The elected representatives of Marckolsheim never once came to the site and to the last maintained that outside extremists were at the bottom of it all. Such pronouncements have been noted by the electors who must wait until the next elections before they can take action against these 'representatives of the people'. Confidence in the authorities has utterly disappeared. The same is true of the leadership of the Chamber of Agriculture and the farming unions. The rank and file have discovered the motivations of those whom they have themselves elected: to secure personal advancement, not to represent the real interests of the people.

2. Development Plans and the "Experts":- The same mistrust was shown to the official experts who continually minimised the 'dangers of the proposed installations and were clearly serving the interests of big business. All the talk of public good, creation of jobs, the brilliant economic future of Alsace was met with suspicion: was it really the interest of the individual which came first or that of the great multinationals, C.W.M., Bayer, Westinghouse, Siemens, etc.? From questions of levels of pollution or toxic thresholds, discussions moved on to an appraisal of the kind of society which our technocrats are building for us - a centralised, mechanised police state, where man is no more than a cog or a consumer unit, in which there is no place for Nature, nor for liberty and spontaneity. Led by the experience of non-violence, questioning went further and finally extended to the idea of the state itself, a remote and artificial abstraction which has nothing to do with the realities of everyday life; to the idea of the frontier, an abstraction which divides a single landscape and a people who speak the same language; and to the absurdity of the army which is an autonomous body within the state, arming itself with nuclear weapons and making its own laws.

The farming community have awakened to a new understanding of their situation: they are falling steadily into debt so that industry

may profit, and have become enmeshed in a world of food machines and food industries at the cost of their independence, their tranquillity and their real standard of living. This awareness is in a fair way to becoming indignation, not least about the planned disappearance of 17,000 hectares of agricultural land in the Rhine area in the next 15 years, under a tide of concrete buildings - and this in a world of growing famine. Agriculture in Alsace is rich and intends to remain so. The sowing of wheat on the proposed C.W.M. site at Marckolsheim in March 1975 and the harvest festival in aid of the Third World on August 24th are only the beginning of this revolt organised by local peasant farmers. A member of the Ark of Lanza del Vasto spent the entire summer of 1975 at Marckolsheim and spoke to the peasants of the need to restore a certain simplicity to their farming methods. Parties visited large entirely automated farms and discussed what they saw. A decisive awakening was taking place.

The refusal to accept the nuclear power stations has made possible a radical re-examination of the whole industrial complex. The climate is such that, now that there is to be no industrial zone at Marckolsheim, it seems natural to demand the abandonment of the planned motorway which would have served it. Likewise the proposed nuclear power station at Marckolsheim is seen to be needless. The removal of any one of the complex elements leads to an unravelling like that of a sweater when a stitch has been dropped: the hole gradually enlarges until finally nothing of the intricate and elaborate beginning remains.

The Marckolsheim affair was truly a turning point in the history of Alsace. Elected representatives will think twice before again accepting some such project in the name of their electors if they have good reason to suppose that these people might in due course plant themselves in front of the bulldozers. The Regional Council and Economic and Social Council are preparing an overall development plan for Alsace and know that they must consult the people if they are to avoid serious misjudgements. Towards the end of 1974 M. Pflimlin himself declared that "not a single elector wanted the industrial zone at Marckolsheim" and that it should be reconsidered.

The four sites - Marckolsheim. Sundhouse, Gerstheim, and Lauterbourg - set aside for new nuclear power stations are surrounded by hostile populations; the fight is as good as won. The nuclear power station at Fessenheim, on the other hand, a 1,200 MW Westinghousetype boiling-water reactor, is already built, and considerable difficulties beset any attempt to prevent its coming into service in 1976. It is surrounded by an enclosure with a barbed wire fence and two perimeter roads, one inside the fence, one outside. At 8 p.m. on May 25th 1975, German, Swiss and French met to hear scientists denounce this monstrous power plant, which will be the first of its kind to come into service, since its counterpart in the U.S.A. is two years behind schedule. The Government mobilised 3,000 armed and specially equipped police and the population around Fessenheim remained resigned and cowed. Only a general campaign of non violence can delay its coming into service: prolonged fasting non-violent demonstrations and civil disobedience by a large proportion of the population. Or perhaps terrorism. Terrorists exploded two bombs at the nuclear power station in May 1975 delaying work by several months. The opposition is at present recruiting from all camps; even agents of the E.D.F.\* have publicly declared their anxiety regarding such projects. Time is on our side.

The by-elections of March 1976 will mark a new stage in the campaign. The ecological movements wish to put up a candidate in every seat (17 in the Haut-Rhine) to unravel existing plans and to uphold a vision of a stable and viable society. The result of this campaign (the number of votes won) will without doubt influence the course of events.

You will be hearing more of the ecologists of the Rhine. When will you be following their example? *\*Electricité de France*.

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### NON VIOLENT RESISTANCE AUSTRALIAN STYLE

Increasingly, organized labour and environmentalists are finding common ground on which to stand and work toward achieving shared goals. Though real differences of opinion still persist between the two groups in many areas, recent events suggest that both can be increasingly effective by working together wherever possible. Last year, for example, the Sierra Club supported the oil and chemical workers union in their boycott of Shell Oil, which was started to force the company to adopt more stringent measures to safeguard workers against the release of toxic substances in Shell facilities. More recently, the International Woodworkers of America and the Association of Western Pulp and Paper Workers came out against the major timber producers' practice of shipping logs overseas for processing, a practice that the Sierra Club has spoken out against on numerous occasions.

On a recent trip to Australia, I discovered a particularly encouraging example of labour unions and environmentalists working together to stop shortsighted construction projects that would destroy parkland and open space. It is called the "Green Ban" movement, and it has in it all the makings of a truly revolutionary alliance between conservationists and the labour movement, based on the very reasonable assumption that the two factions not only need not be in conflict, but absolutely must not be.

The movement began in 1971, when a real estate developer gained permission from the New South Wales government to put up a collection of luxury homes on a plot of land called Kelly's Bush, a piece of natural forest near the heart of Sydney. Local conservationists - most of them middleclass women from the neighbourhood of Kelly's Bush - petitioned the government to stop the project; when that failed, they simply lay down in front of the developer's bulldozers. That act gained time, if nothing else, and in the interim they went to Jack Mundey, Secretary of the New South Wales branch of the powerful Builders Labourers' Federation of Australia, and asked him to convince his union members to place a workers' ban on the Kelly's Bush project. At a massive union meeting, the workers agreed to save the park. When the developer attempted to go ahead with his plans, work on a downtown office building he had contracted for came to a dead stop, the union declaring that if one blade of grass in Kelly's Bush was bent by a bulldozer, the office building would stand unfinished and unrented forever. It worked.

The labour unions, it should be understood, have not imposed green bans in a haphazard or irresponsible manner. After all, the unions are not interested in eliminating potential jobs unless there are overwhelming environmental reasons for stopping a project. The green ban is a kind of ultimate weapon, a court of last resort that is available when all traditional lines of appeal have failed to stop or mitigate a potentially destructive construction project. It is possible that the unions might not stop work on a project that you or I might find objectionable, but it is comforting to know that neither will they approve virtually any building scheme regardless of its environmental consequences. They have adopted a broader view of what constitutes their self-interest; jobs are not their sole criteria.

Today, more than forty "Green Bans" have been imposed by the Builders Labourers' Federation, as well as such other workingmen's organizations as the Plumbers and

Gasfitters Employees Union. These bans have saved the Botanical Gardens that stand next to Sydney's splendid new Opera House (they had been slated to be replaced by an immense parking garage during construction of the opera house in 1972), have halted the construction of office buildings in downtown Sydney that would have destroyed both open space and historically important buildings, have put a stop to the construction of a freeway that would have gutted Sydney's inner city, and have preserved parks both in and out of the city. The schemes in question were estimated to have a value in excess of three billion dollars, Australian (four billion, American). That is real money, and it suggests the scope of a movement that has captured the imaginations and the sympathies of Australian workingmen, who apparently are learning to look beyond their next paycheck to the future.

Writing in the June, 1974 issue of Habitat, the official publication of the Australian Conservation Federation, Jack Mundey (now his union's Honorary Treasurer) articulated the rationale behind what, to American eyes, might seem an unlikely development: "In our industrialised society, workers and their organisations are at last beginning to realise that they must broaden their vision and look beyond purely economic considerations. What is the use of winning a 35-hour week and improved wages and conditions if workers and their families have to live in polluted cities and towns denuded of trees and devoid of parks? To be rational, our concern must not stop with the work day or the work week. After all, one may obtain a 35-hour week, but one lives a 168-hour week. If ordinary people are to live in a decent environment then we must become aware of the terrible destruction of both the natural and urban environments now being perpetrated. More importantly, once that awareness is aroused, we must proceed to action to curb the sort of wanton destruction that is now occurring. Unions and other organisations with a social conscience not only have a right but a responsibility to take direct action."

The Australian government - at least as represented by its consulate in San Francisco - would prefer to think of Jack Mundey and his Green Ban movement as a minor social twitch, not to be taken seriously. I do not believe it. The three billion dollars worth of projects the movement has already stopped tell me it isn't so. So did Jack Mundey. During my recent visit to Sydney, I met Mundey over lunch at Goldfield's House (also saved from demolition by a Green Ban). I was impressed by the man and his convictions, by his indomitable determination to help save the city and the land he calls home.

Gordon Robinson

Reprinted from Sierra Club Bulletin, April 1975.

# THE SEARCH FOR EMPLOYMENT IN THE IRISH REPUBLIC

Unemployment in the Irish Republic currently amounts to 10% of the workforce. The birthrate is decreasing gradually but the population is rising fast. At the last census (1971) the total population was 2.9m; a recent report by the National Economic and Social Council forecasts it will be 3.5m by 1986. To reduce unemployment to 4% of the labour force by this date it will be necessary to create 370,000 new jobs - an increase of about 25,000 per year. However unlikely this objective there are indications that a return to the land would not be an acceptable solution to the problem.

The creation of employment has always been given priority in Government plans in the Irish Republic. Various differing strategies have been adapted for this purpose, among them protectionism in the 1930's, in which inefficient industries grew up and an expansion in the labour force reached a ceiling. The decision to re-open the economy led to industrial stagnation and a decline in employment in the 1940's as those industries were exposed to international competition.

In the late 1950's it was decided that full employment could be reached only by trading on the international market and by industrialisation. In 1957/8 tax concessions were introduced on profits from exports and in 1958 the First Programme for Economic Expansion was published. The First Programme was followed by a Second (1964-69) which set targets for industrial growth of 7%, an increase of 4.3% in GNP and, in industrial exports, of 11.4%. By 1968 it was clear that the economy was out of line with the predictions of the Second Programme. Employment was 50,000 down on target and the average growth rate for the industrial sector was 1.3%. Notwithstanding this, industrial output had increased in the period 1959-68 by 82%.

The performance of Irish industry between 1958 and '69 has been analysed and trends which have since then become more apparent were identified. Notably, in 1958, manufactured goods which were based mainly on locally produced raw materials comprised 75% of the total; in 1969 this figure had fallen to 63%.

In 1969 the Industrial Development Authority came into existence; this semi-State body operates by providing Irish firms with more productive equipment and by encouraging new firms, both Irish and foreign owned, to establish themselves in Ireland.

Industrial products which were exported had increased from 50 to 70% in 1959/69 and, in 1966, industries which were aided by government grant provided 60% of exportable goods. Between 1962 and 1972 the export of industrial goods rose tenfold while the value of exports of other commodities increased from £18.6m to £85.4m. Ireland has become a highly export dependent country and, not being over-endowed with natural resources, importation of raw materials for many industrial processes is necessary. In 1972 imports accounted for 39.3% of GNP and exports 30.1% (in Britain comparative figures were 18.1 and 15.8%).

In terms of employment however industrial expansion has been less successful than forecast. In 1966 there were 52,000 people out of work; in 1972, 71,000 and the number exceeded 100,000 this spring, the highest figure since 1943. Again it would appear the economy has reached saturation. Now, however, there are few countries to which surplus workers might emigrate, a traditional safety valve in times of economic stress. Full employment as defined in a recent NESC document will prove an elusive goal and to strive towards 25,000 new jobs per year is too much to hope for when, between 1968 and 1974, only 5,000 new jobs were created in two years ('70 and '71) and 18,500 new jobs were created only once.

Throughout the industrial boom of the 1960's the economy expanded rapidly, GNP rose by 75% (real values) in a period in which Ireland's primary fuel demand increased by 54% and employment decreased slightly. Increasing consumption of imported energy has contributed significantly to growth.

The commitment to greater fuel consumption is continuing and the

		TABLE 1		
The cost of prov	iding a perma	anent job in some he	eavy industr	ies in Ireland
Firm	Location	Process	Cost of job £000	Year of costing
Shaheen Co.	Cork	Oil refinery	200-266	1973 - 1974
Irish Hydrocarbon Limited	Cork	Oil refinery	200	1973
Alcan	Limerick	Aluminium	125	1974
Du Pont	Cork	Titanium dioxide	53-80	1973
Co-operative				
Agricultural	Cork	Fertilizers	60	1973
Purchases Ltd.				
N.E.T.	Cork	Fertilizers	57	1973
Amari Wolf etc.				
Steel Consortium	Cork	Steel products	50	1974
Smelter Corp. of	Cork	Base Metals	50	1974
Mitani Danman	Carl	Manganage	99 11	1079
Mitsu Denman	Cork	dioxide	38-44	1975
Chicago Iron &				
Bridge Co.	Mayo	Oil rigs	36	1974
Ashai	Mayo	Acrylic fibre	18	1974



THE CONTINUING loss of broadleaved trees is a matter of grave concern to all who are interested in the conservation of wild life.

The Woodland Trust aims to safeguard the future of this vital part of the national heritage by acquiring areas of broadleaved trees and managing them in perpetuity with particular emphasis on amenity and wildlife.

Established in October 1972 as a Registered Charity, the Woodland Trust aims "to conserve restore and re-establish trees and in particular broadleaved trees, plants and all forms of wildlife in the United Kingdom of Great Britain and Northern Ireland and thereby to secure and enhance the enjoyment by the public of the natural environment of those territories"

(from: Declaration of Trust, 10th October 1972)

The Trust had its origins in Devon where it has acquired areas of woodland in the past two and a half years totalling more than 300 acres. It has recently acquired a small wood in Dorset and is seeking further areas of broadleaved trees in other parts of England. The Trust now believes it is time to extend its activities to the whole Country and aims to establish local Branches with this in view.

If you are concerned about the loss of our broadleaved woods and native trees, if you can assist in establishing a Branch for the promotion of the Trust's work, or if you can help by a donation or by becoming a member, the Trust would welcome your enquiry.

For further information write to:

K. Watkins, The Woodland Trust, Butterbrook, Harford, Ivybridge, Devon.

energy-intensive nature of new industrial projects is obvious from the capital cost of a single job (Table 1) in recent industrial projects. Permanent jobs which will follow these capital investments will almost certainly be of short duration (10-20 years).

Not all incoming projects in Ireland are so large as those listed in Table 1 but major growth in industrial employment has occurred in chemical industries (by 346%). metal products and machinery (226%) and glass, pottery and cement (171%) between 1958 and '71. It is instructive to look more closely at the plastics industry which illustrates Ireland's dependence on foreign materials and energy. Ireland does not have a polymer plant .so she is a plastics consumer rather than producer. In 1973 plastics imports amounted to £31.7m and exports to £25.5m so that, to begin, plastics contribute to a deficit on balance of payments. Turnover per worker rose from £5,152 to 8,375 between 1969 and '73, an increase of 63%. In the same period GNP grew by about 40% (money values) so that this industry required a growing proportion of GNP in order to maintain employment of a single worker. In 1974 plastics prices almost doubled revealing the inherent insecurity of oil based industry. Yet in Ireland the plastics subsector anticipates a major expansion between now and 1980.

Of concern in Ireland also is the size of the tertiary or service sector of the economy. Although this is not exclusively dependent on manufacturing industry for its existence many of the activities which are embraced under the term have a distinct urban rather than rural base (commerce, insurance, gas, administration etc.) and a study of the trends shows parallel development rates for the tertiary sector and industrial employment. Wage levels are fairly similar in the industrial and service sectors; employment in the tertiary sector is in a ratio of 1:1 with that in industry, total consumption by industrial and tertiary sectors will be 60 per cent of total production, leaving 40 per cent to finance imports.

The Irish Economy is thereby highly dependent on the continued availability of cheap energy and resources as well as the continued existence of a foreign market for Irish wares.

If these conditions are not propitious then prospects for employment become very grim indeed. The solution to the problem of unemployment in the Irish Republic, as in other urbanised western countries would thus appear to reside in the creation of labour intensive industries, decentralisation, a movement of people back to the land and the establishment of a demographic policy.

Changing the attitudes of people to an urban way of life is a more deeply rooted difficulty. Originally the Irish Republic was an agrarian society. In the years which preceded the First World War the economy was an open, unprotected one, producing mainly agricultural commodities. Exports exceeded imports between 1914–21, a prosperous situation apparently, and one which was encouraged during the first years of the Free State Government when the rural way of life was almost glorified as a national ideal. In spite of this the cities proved a more attractive lure. A massive and fundamental change in attitudes is therefore required, as is a redirection of funds, if these objectives are to be realised.

Edward Fahy

### This month's authors

Nicole Ball comes from New York. Since 1971 she has been a Research Fellow at the Institute for the Study of International Organisation at Sussex University. Publications include: Regional Conflicts and the International System: The Case Study of Bangladesh. I.S.I.O. Monograph 1975.

Solange Fernex, herself an Alsatian, has been one of the principle figures in France's Ecologie et Survie Party. She and her husband were founder members of the non-violence resistant movement about which she writes in this issue.



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Historical Consequences

AND NATURAL RE-MAN SOURCES by Sir Cedric Stanton Hicks, Croom Helm Ltd. £5.25. The name of Sir Cedric Stanton Hicks may be unfamiliar in Britain. In his native Australia he is respected as a scientist of the highest eminence. Until his retirement he was Professor of Human Physiology and Pharmacology at the University of Adelaide. He is also known as an outspoken supporter of the organic farming, and hence environmental movement. He has been an active

member of the Soil Association for some twenty-five years. What he says and writes is likely to be important and to provide valuable support for those who advocate environmental reform. This small book does this, but it does more as well by bringing to its subject a broad historical perseptive and by including a rigorous critique of what Sir Cedric calls "the ignorance explosion" — the obverse of

the information explosion. The book begins by explaining important ecological concepts and their philosophical implications. Prof. Stanton Hicks then shows how human activities may violate ecological principles, concentrating especially on the mis-use and pollution of water. This leads him to his main theme, the abuse of soils through deforestation and extractive agriculture, which alter drainage patterns and cause erosion. The villain of the piece is the economist, whose crude theories override the subtleties of biological systems and of human societies.

Though our obsession with economic criteria has appeared only within the last century or two, ours is not the first civilisation to fall under the accountants' baleful eyes. After Sesostris III reformed the Egyptian civil service in 1860 BC, the scribes, who kept all harvest records and thus the imperial accounts, became so powerful that it is they who were honoured after a good harvest, while the peasants were treated with contempt. It was the Romans, though, who industrialised their agriculture, using slaves where we use machinery and chemicals. Gradually Italian agriculture declined and Rome became heavily dependent on food imports in a process that is recorded in great detail by Virgil, Horace, Columella, Pliny, Varro and others, the George Stapledons, Albert Howards and Eve Balfours of their day. Compounded by technologies that enable us to exploit every short term advantage in a way the Romans lacked the power to do and by rates of population growth that seduce us into believing we have no choice but to do all we can to gain a little more time, our situation may be more precarious than was that of earlier civilisations.

It is towards the end of the book that Prof. Stanton Hicks makes what I believe to be his major point, that the immense quantity of contemporary scientific research may actually hamper our attempts to comprehend what is happening. As the output of information increases, the quantity that can be absorbed by each human being becomes a smaller and smaller part of the whole. Thus specialisation becomes inevitable and the escape from simplistic reductionist interpretations of phenomena almost impossible. The rate at which information is overtaken and becomes obsolete serves only to confuse us further. The result is that the matching of solutions to correctly diagnosed problems is, at best, a haphazard business. Perhaps we should look for remedies to the radio astronomers, who have had to learn to separate information, "signals", from the background of radio emissions they call, aptly, "noise".

The book's message is urgent, but not unduly pessimistic. For fifteen years Prof. Stanton Hicks and his wife studied in detail the progress of land reform in Italy, which succeeded in rehabilitating 300,000 families, more than a million people, in prosperous, integrated communities that produced food from land their Roman ancestors had reduced to rough grazing, swamp or the eroded sides of hills. So there are solutions to what Prof. Stanton Hicks sees as the single most urgent problem facing us: the restoration of the food production cycle. Since these solutions favour smallscale, labour intensive units, however, there must be a virtual revolution in our attitudes to the economic lore that guides us. The counter-pressure to produce rapid, spectacular results will be strong and Prof. Stanton Hicks is not overconfident of a successful outcome.

Man and Natural Resources is a short book and rather expensive. It should be read widely, though, and, more important, its message should be absorbed into our philosophy, where it may generate action.

Michael Allaby

#### **Buildings for the Future**

ENERGY, ENVIRONMENT AND BUILDING, by Philip Steadman, Cambridge U.P. £5.40; PLANNING FOR AN URBAN WORLD by Richard I. Leier, MIT. Press, £13.75.

Both these books are concerned with building and planning that ideally — should respond to the 'new reality' of energy and environment limits in a crowded, urbanising world. But the authors' very different prejudices, and the facts they use to support their totally different responses to the new reality, make these books completely different.

Philip Steadman, a young Cambridge architect, was appointed, in 1972-73, by the Philadelphia Natural Sciences Academy, to help design a new museum. Luckily, the Academy's directors were aware of the world outside their museum's doors, and specifically asked Steadman and other consultants to research the ways their building might use renewable energy sources, biological waste handling, energyefficient lighting and heating, and so on.

The book therefore covers many N. American and British examples in the rapidly-evolving, low-energy technology field. As Steadman says in his useful introduction on energy and environment limits, the radical and freak architecture of 1969-72 had become widely discussed in establishment circles by 1973-74. Unfortunately this does not mean that the ideas haven't got a little distorted on the way. The problem, of course, is lifestyle and economics. Inflation, especially the British-S. American type, creates a wonderland of the eternal present. New ideas get more and more expensive, and the investment return required to justify them becomes enormous. The good ideas of solar heating and windpower, as two examples, have become transmuted by inflation and lifestyle into the attempts of wouldbe entrepreneurs to sell plastic solar water-heaters made from car vinyl seat offcuts, and cheap windmills of a 50-year old design. Nothing else hope to make economic can 'sense'.

This is the 'radical' end of the present British and European scene! At the other end are even more tokenistic 'responses' to energy and environment limits such as the halfbaked 'Save It' campaign, and the pompous glass and concrete blocks with a few energy-saving gimmicks, like heat recovery from the vastbanks of fluorescent lights thatfrazzle the lucky inhabitants.

Steadman is concerned to show the many examples of successful low-energy housing, and to this end has given a very thorough bibliographic treatment to renewable energy sources, and related topics. He has also attempted to cover equipment suppliers, but since his survey was in 1973 it is now a little out of date. However, the biggest drawback of his book is that he does not go deeply into the lifestyle and economic reasons which have so perverted the well-developed idea of low-energy building, and have ensured that for the present the only working examples will be by radical and freak architects the ones who first developed the idea.

Planners, too, have learnt the newspeak of 'interest and concern' for the environment, and 'conservation' of energy and resources. Richard L. Meier, who is something of a maverick even in a profession which has spawned Buckminster Fuller, pumps out the old rhetoric of big is best with a few smart new 'energy conserving' phrases. Indeed, the subtitle of this heavy and ludicrously expensive apologia for USstyle megasuburban car-cities is "The Design of **Resource-Conserving** Cities". No new piece of jargon, or tired-out old rhetoric about saving

Asian peasants with car factories and cities (a la South Vietnam?) has been spared. For example: "The normal city dweller in the future will be working much more with communication technology. He is expected to spend 12-20 hours per week interacting with a screen . . ." This meerly means that he will be watching TV. If this is anything like the 12-channel garbage of UA TV stations then the 'interaction' is likely to be pretty minimal.

And what of the growing army of people who, under the stresses of city living, simply freak out into madness and violence? These, Mr. Meier tells us, are the 'bad fits' who will be circumvented by recourse to a little generic engineering. By using clones (artificial identical twins); "superior genes would be selected so that the best individual fits to a wholly urban environment could be reproduced many times. This implies that the instances of bad fit would not be allowed to reproduce . . .' In this way presumably, we can look forward to Doxiadis' 'Ecumenopolis', a world city where, most of Europe is one continuous city, with smart PVC people freshly issued from the clone factory. It is just as well that the resources Mr. Meier refers to are in sufficient shortage to prevent his nightmare vision of the future coming to be.

Andrew MacKillop

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### A Scientist's View of Pollution

POLLUTANTS AND ANIMALS: A Factual Perspective by F. Moriarty. George Allen & Unwin, 1975. £5.65. When facing the Inquisition, Galileo just about had the courage of his convictions and muttered that the earth moved around the sun. Galileo the scientist was a heretic, albeit a feeble one, for he knuckeld under when threatened with possible torture and execution. Today's scientists are no longer heretics; it is they who have created the reality of the technological world and who have laid down the ground rules by which we must observe our surroundings and pass judgement. In established scientific circles truth and reality are reckoned by data and statistics not by our God-given senses which are said to be treacherous and misleading because they cannot be divorced from emotion.

So there we have it. You and I can step outside, look around and sniff the air, and know without any shadow of doubt that the environment is deteriorating. The scientist - armed with apparatus reckoned to be vasily more sensitive than our own inept sensory faculties - may monitor the environment with the whole-hearted dedication of a man who believes absolutely in what he does, and come up with nothing to suggest deterioration. According to him there may even be improvement. Hence that deterioration does not exist. Yet our ancient buildings crumble away, our topsoil gets thinner, our water less and less fresh, our air more chemical and the world's variety of plant and animal species disturbingly fewer.

The truth is that the environmental scientist with his monitoring gear is becoming one of the biggest stumbling blocks to coherent action against man-made environmental deterioration: for it is reality as gleaned from his experimental techniques that becomes reality for the rest of us and vindicates government inactivity.

Yet it was not scientists who first appreciated that certain bird populations in Britain were endangered. The clue came when racing pigeon competitors complained that a high proportion of their birds were not returning, and for want of a better reason, blamed the peregrine falcon - the pigeon's natural predator. The reverse finding - that numbers of the falcon had diminished rather than increased - then came as something of a shock, and the quest for a cause began.

Moriarty's conclusion from that episode is that we must monitor the environment more carefully to prevent the unnoticed disappearance of any other species. He seems to have failed to appreciate that once a species is on the decline it may be too late to salvage it and that monitoring will therefore have served no purpose, other than to provide employment to more scientists.

It is clear that Moriarty's scientific training very often gets in the way of his better judgement. The right reason for a scientific observation becomes for him more important than the fact itself. Thus he goes out of his way to point out that the concept of a pollutantconcentrating factor as one progresses up the food chain, does not necessarily apply to aquatic organisms. Experiments have shown, he points out, that aquatic organisms derive organochlorines direct from the water, rather than from their food, and the much higher concentrations of insecticide in the tissues of animals higher up the food chain is mainly a result of the higher fat content of their muscles and body tissues - organochlorines being fatsoluble. But is it really important how an aquatic organism gets its insecticide? Surely what is of consequence is that the guppy which feeds on daphnia which feeds on algae will concentrate dieldrin by a factor of nearly 50,000 compared to daphnia's 14,000 and algae's 1300?

If I were absolutely sure that our industrial society was heading in the right direction and needed to be convinced that pollution was no ultimate problem, I should find some solace in Moriarty's book, for he treads carefully and says nothing that might cause some detractor to question his scientific ability. Thus, in discussing the Guillemot Wreck he states: "To summarise,

many thousands of birds died during September-November 1969. Most bodies appeared on the Ayrshire coast of Scotland at the end of September, during stormy weather, but many deaths occurred both before this when the weather was calm and later on. Levels of pollutants were not sufficiently high, compared to those in shot birds to justify naming them as the sole cause of death. The most likely hypothesis was that, for reasons that are not all that clear, the birds were first not feeding, which caused them to mobilise their fat reserves, when levels of various pollutants increased in some tissues, and this, combined with other stresses such as the stormy weather, was sufficient to kill them."

What are we supposed to make of that kind of statement? That if the birds had no pollutants in their bodies they might have died anyway; or that they had to have the pollutants in them to bring about their deaths, though pollutants were not the real cause?

Moriarty then adds insult to injury by implying that the 4000 people who died in London during the smog of December 1952, died in reality because their chronic bronchitis was aggravated by the smoke and high sulphur dioxide levels. He does not ask the question why these 4000 and many others too had the chronic bronchitis in the first place.

I do not want to make Moriarty the arch-villain of the piece, like the fictitious character in Sherlock Holmes, because there can be no doubt that he and his colleagues at Monk's Wood have come out with some fascinating findings and have managed to arouse some sort of conservation-minded activity within the government. Unfortunately the tone of this book makes it all too clear that they have failed to appreciate the urgency of the situation. How can monitoring and more research as demanded by Moriarty ever hold back the inevitable demise of our living environment?

Peter Bunyard

Surviving

THE SURVIVAL HANDBOOK. Self Sufficiency for Everyone. Michael Allaby with Marika Hanbury Tenison, John Seymour and Hugh Sharman. Macmillan £4.50

ALTERNATIVE ENGLAND AND WALES. Nicholas Saunders, 65 Edith Grove, London SW10. £2.50

THE SURVIVALISTS. Patrick Rivers. Eyre Methuen Hard Covers £3.95. Paperback £1.75

SURVIVAL 2001. Scenario for the Future. Henry E. Voegli and John Tarrant. Van Nostrand Rheinhold Co. £2.50

Survival is in the air; it's an in topic, a guessing game that is played by people who believe that technology can save the world as well as by those with a less sanguine view of the future. The difficulty about writing a Survival Handbook is that you must decide what circumstances your particular survivors are likely to be facing when they come to use it. Are you writing for a time when law and order have indeed broken down and a disorientated and demoralised populace is spilling out of the cities to seek its survival in an alien countryside, or are your readers, like the survivors in a recent TV serial, living in a postdisaster situation?

Michael Allaby writes in his introduction that his book is an attempt to answer a simple question '... if the society in which we live were to collapse, if its industries and services ceased to function . . . how could we survive . . .?' The brief seems clear enough, and the author has brought together an able team consisting among others, of an experienced subsistence farmer, a do-ityourself builder and carpenter, an expert on alternative technology a resourceful cook, a weaver, potters, printers, and cobblers. Between them they have gathered much sound sensible information about a wide variety of subjects, but none of them are really talking about survival; none of them has imagined the reader in a situation where modern aids to an ordered existence really are not available. There

is no advice on how to control a frightened, starving and belligerent mob from the city.

Marvellous instructions for making a cross bow, so that you may kill your own deer or pheasant, are given along with the dates when you may legally use it! You are shown how to tan leather, and make your own bleach, soap, rope, candles and brushes, but are advised to buy the right kind of bottles for bottling your home grown fruit and veg: this is a comfortable world where the vet can still be sent for when the cow is sick, where seedsmen still supply you with your vegetable seeds and where you can get cheaper harness for your horse if you pop over to France or Spain to buy it.

The section on building disposes in a few lines of the primitive shelters that real survivors would presumably need to make in the absence of anything else to live in, but goes on to give a lot of information about building a real house together with details of current building requirements. It is assumed that a local government inspector will still be there to keep a watchful eve on what you are doing, from which you may infer that planning permission still dominates the scene. In short this is a handbook for those who wish to lessen their dependence on the state, and none the worse for that. It covers everything you would expect such a guide to cover and some things that you would not. I think it should have stopped at the purely practical and not have tried also to cover such vast and well documented subjects as looking after the baby and care of the old. I was particularly unhappy about the latter which is not only unbearably patronising, but seems to equate 'old' with 'senile' - an odd lapse since we know that in primitive societies the 'elders' are usually revered for their wisdom.

But let me not carp. I am sure that the Handbook will be enormously appreciated by many to whom the concept of survival is still unexplored territory. It is attractively illustrated and well set out and will make an excellent Christmas present for every one who has an urge to become more selfsufficient.

Although Nicholas Saunders' mammoth work of reference covers a good deal of the same ground as the Survival Handbook, Alternative England and Wales is not about the future but about surviving here and now. The scope of his work is so wide that no one is going to want all of it, but equally there must be few who will not find some part of it relevant to their own lives. Basically what it offers is a sound, comprehensvie and sometimes surprising survey of how to get along in spite of the establishment. Subjects covered therefore include squatting, drugs, abortion and phone phreaking, but much the greater part is concerned with giving the reader the sort of information he needs to find his way to the people or organisations whose help or instruction or support he may want. The range of the book is enormous and the work that has gone into it prodigious. Whatever areas a reviewer may select for mention these can only indicate a tiny part of the whole - here are some of them, taken at random: plumbing - meditation - workshops - alternative medicine - husbandry - organic food - legal aid - passports communities - recycling - retreats - and how to leave your body to medical research. Alternative England and Wales pulls no punches, is written in very basic English and shows a refreshing lack of personal prejudice.

Both the books reviewed above devote a section to the subject of community living and communes. and both describe the experiment at Eithin y Gear, the home of BRAD (Biotechnic Research and Development). Patrick Rivers starts his book with a penetrating look at the group at Eithin y Gear and takes the examination and assessment of an alternative society much further. He sets out to acquaint people who still live 'inside the system' with the sort of solutions that have been tried by those who have opted for new ways. He looks for the philosophy behind the movement that is demonstrably growing, not only in the United Kingdom but in the U.S.A. and beyond. As he moves from place to place staying with people who are experimenting with new lifestyles

he discusses not only the needs of society but the needs of the planet which sustains that society, against the mounting evidence that the life of the biosphere as an inhabitable region is seriously threatened. *The Survivalists*, then, is not only about the survival of man, but about what man needs to do now, and quickly, if he is to slow the tide of destructtion enveloping our world.

People are increasingly concerned over the folly of our present extravagant consumption of resources and global pollution; some may try to effect change by conventional political methods, others seek a solution in a totally new kind of These are the Survivalists life. Rivers travelled many Patrick thousands of miles to meet and live with and talk to. His book covers not only the rural solutions but looks too at the quality of life in the cities, and the groups who are trying to make city life more tolerable. This is a serious and thought provoking book, but in no way a gloomy one.

The American authors of Survival 2001 have chosen to present their book in a futurist form as a series of lectures to students of a hypothetical society in the twenty-first century, showing them what the world was like in the bad old days at the end of the twentieth. The gimmick imposes upon the writers the task of inventing the future and of 'seeing' our own period of history as our descendants will see it. Having adopted this method each section has to be prefaced with a somewhat pointless comment such as 'You may be interested in the following devices used in the late 20th Century to harness the power of the air. They are the forerunners of our present wind-energy systems.' This is followed by a section on windmills, with detailed specifications and drawings of the types of windmills available to us now. One may doubt whether the students of 2100, if they are living in the cosy pollution free world imagined for them, would be much interested in this manual, but for those presently concerned with energy conservation and alternative resources the book offers possibilities.

Ruth Lumley-Smith

TRACT Nos. 6-15. Edited by Peter Abbs, Gryphon Press, Llanon, Ceridigion, Dyfed. Nos. 6-9 25p. Nos. 10-15 50p. Annual Sub £2 00

The principal theme of Tract is culture, or in the title of one of Mr. Abbs's essays (Tract 10 & 11), 'Culture against Civilisation'. Mr. Abbs believes that culture is most encouraged by conditions that are relatively small-scale. by conditions of trust rather than anxiety; and by conditions in which people are held together by beliefs or values that transcend the everyday self. Industrial civilisation will only rarely provide those conditions: it is large, centralised, and materialistic. It has a religion of a kind, the religion of science, and it has, indeed, a culture of a kind, the products of which are manufactured in the metropolitan centres and packaged for wholesale distribution, but it has no adequate means of satisfying the individual's need for meaning in his life.

It is central to Tract's position that the need for meaning will not be met solely through rational means of apprehension. In the words of Martin Buber: "What the most learned and ingenious combination of concepts denies, the humble and faithful, beholding, grasping, knowing of any situation bestows. The world is not comprehensible, but it is embraceable." The world is embraced through the imagination, Coleridge's "living power and prime agent of perception". Although the prestige of science has tended to obscure the value of our imaginative responses, they have an important part in determining our day-to-day behaviour (Tract 6) and in confirming the reality and worth of the world that we perceive (Tract 8). In its evaluations, the imagination embodies a system of ethical beliefs; the adequacy of currently favoured ethical systems is considered by Dr. Catherine Roberts (Tract 12; reviewed in The Ecologist, Vol. 5, No. 9) and by Dr. E. K. Ledermann (Tract 7).

Tract's preoccupation with the imagination develops into a passionate concern with education: how can imagination best be promoted in the growing child? It will not be enough for the school to shape the child into a passive recipient of consumer culture; a double issue of

Tract, 'The Politics of Education: A Symposium' (Tract 10 & 11) considers possible alternatives. Thomas Merriam argues that, in a society which practises systematic deception so as to sustain the goal of unlimited material growth, the school must try to cultivate in the individual a moral curiosity, a willingness to question the official story, and must enable him to distinguish information that matters from that which does not. As an example of what this means in practice, Mr. Merriam suggests the kind of approach that would dispel the public ignorance concerning the sources and the quality of the nation's food. Mr. Merriam's proposals are practical and quietly radical, and should be examined with care.

Mr. Abbs's criteria for the wellbeing of culture culminate in the vision of a decentralised society composed of "intimate, rooted comunities". Evidently the city can have no place in such a scheme unless it is restored to human size. Leopold Kohr, in an elegantly argued piece (*Tract* 12) outlines simple principles of urban planning that would permit the rehabilitation of the city.

Tract has been appearing, more or less quarterly, since 1971. Mr. Abbs has chosen to avoid income in the form of grants (and, given his theoretical position, advertising revenue would have been unthinkable), and to depend instead upon supporting community of "a readers"; that he has been able to continue publication on this basis, through times so unfavourable to small presses, is a measure of his determination and his commitment. The essays that he has chosen for Tract are not all of equal value; they are sometimes unlikely in their conclusions, and often self-conscious in their calls-to-arms; but in insistently directing attention upon what gives meaning to life, they are entirely to be praised. Mr. Abbs looks for the future to the emergence of an "internal proletariat", a growing number of responsive individuals who wish to reorganise society in a way more compatible with the needs of culture. Readers of The Ecologist may find that they already stand amongst that number.

Bernard Gilbert



Liberal Ecology

Dear Sir,

The Liberal Party has been skillful in fostering the illusion that it is natural vehicle for the ecological movement but it will not bear scrutiny. At their Assembly in 1974 they staged a growth v. no-growth confrontation which the no-growth surprisingly close lobby came to winning, although few delegates gave the impression of having adequately thought through the implications. This year they simply stated that no-growth was here anyway. This was astute from the point of view of party cohesion, but it does nothing to advance the ecological cause. It dodges the crucial issue of what the Liberals actually intend to do about zerogrowth.

To be fair, the 1975 Assembly did pass a resolution on Resource Management which could be interpreted as ecological by those who wish to do so, but it appears to allow, for example, for reflation as soon as it is thought feasible to provide investment for technological solutions. When interviewed, John Pardoe, their economic spokesman, still felt free to talk of expecting an economic upturn, and none of his supposedly ecological colleagues corrected his rabble-rousing and irrelevant reference to prices and incomes, by pointing out the role played by resource limitations in triggering off the recession, which is the main cause of unemployment. Nor did any of the spokesmen I saw, or heard interviewed, seem to regard the Resource Management resolution as particularly important, and it was virtually unreported in the press.

Meanwhile the debate on eco-

logical options, and the educational process of publicising them, goes by default at a time when they need to be shouted from the housetops. I have seen nothing to change my view that any attempt to transplant ecology on to a party founded on some other ideal is fundamentally misconceived. If the Liberals were to adopt this approach unequivocally, let alone make it the main plank in their platform, they would temporarily lose electoral support, and permanently alienate many key party workers. Yet unless they do both, their position is fraudulent.

Yours faithfully,

C. R. Lord, National Secretary, Ecology Party, Batley, Yorks.

### Is Man Growing Up?

### Dear Sir,

Duncan Williams (August/September 1975) gives *The Biology of God* so much praise that he forgets its fund-

amental weakness - despite its title, Alister Hardy's book is not in fact about "the biology of God" (whatever that might mean, and whether that is possible) but about the psychology of religion. The fact that man is "a religious animal" or rather, that most people seem to need to believe in something beyond reason - may explain the existence of religious experience, but it does not prove the validity of religious experience, but it does not prove the validity of religious belief. The fact that most scientists have been religious and that scientific work has been linked with religious attitudes may say something significant about the nature of science, but it does not prove that religion has a scientific basis.

Duncan Williams says of religious experience that "scientific rationalism, alone, cannot explain it", but it is precisely scientific rationalism which the new religionists now invoke to explain it. He quotes Haldane against atheistic materialists, but Haldane was himself an



atheistic materialist who said – as we all say – that the fact that we cannot explain everything in scientific terms does not mean that we need to do so in religious terms. It is absurd to use rationalist arguments against rationalism, since it is precisely our reason which tells us that our reason is a limited guide to the discovery of truth; it is however the best guide we have, and it is tragic to see rational people attacking their own rationality.

Duncan Williams and Alister Hardy and all the other new religionists say that the existence of religious people shows the need for religion, But what is shown by the existence of irreligious people? Doesn't the spread of atheism, materialism, secularism, humanism show that man may at last be growing up?

### Yours faithfully,

#### Nicholas Walter,

Rationalist Press Association, 88 Islington High St., London N1.

### Monotheism and Individuality

Dear Sir,

There is no doubt that in The Ecologist ecology has reached its broadest and therefore most satisfactory interpretation to date, far removed, not only from the ludicrous 'tunnelvision' of conventional economic, scientific and sociological analysis of man's history and development, but also from the narrow scope of that academic ecology which clings to biology and zoology and which, though providing much valuable information especially in the fight against man-made disruption of natural eco-systems, is itself too limited to be used as a tool for understanding the complex nature of human society.

The Ecologist's editor, Edward Goldsmith, has himself pushed the boundaries of ecology further afield than almost any other writer in his special search for the elements of stable society, most notably in his important but neglected monograph: The Epistemological and Behavioural Basis of Culturalism: A General Systems Approach, but also in many Ecologist articles, including his recent 'Fall of Rome' essay. My admiration for that particular analysis and for the general level of interpretation to be found in *The Ecologist* is tempered only by my feelings that even this magazine's uniquely broad base falls short of encompassing that 'total order of things' within which alone, as Solzhenitsyn writes in *August 1914*, can be found the laws of the perfect human society. The missing elements are, as Solzhenitsyn states: 'The purpose of the universe. And the destiny of man'.

I would be the first to concede that such philosophical considerations may be irrelevant to the objective of halting man's self-destruction, which is the more immediate and perhaps therefore the primary side of The Ecologist's coin. The other side, however, as the magazine's subtitle indicates, relates to the longer-term future and is very much concerned with discovering 'the laws of the perfect society'. If Solzhenitsyn is correct, as I am sure he is, then any attempt to prescribe future stable forms of society which does not take into account 'the purpose of the universe and the destiny of man' must be doomed to failure.

My attempt to convey the importance of these matters is prompted by the interpretation given to monotheism in the Fall of the Roman *Empire*, where it is maintained: 'Monotheism reflects a structureless, i.e. a disintegrated society', and where that lack of structure is attributed to the asocial emphasis (in such 'Eastern cults' as Christianity) on the individual's relationship with God at the apparent expense of his ties to society. It seemed to me that the surface validity of that contention in fact concealed a failure to understand the true nature of human individuality.

In the first place it must be said that in the case of Christianity at least the ties of the individual to his neighbour and to society are in no way *replaced* but placed on a higher level and in fact strengthened by the emphasis on *conscious* moral responsibility for the welfare of everyman i.e. it was intended (though man has as little caught up with the message of Christianity as he has with the full implications of

the steam-engine) that the natural laws of society be understood and internalised instead of being left in the uncertain hands of tradition and convention, which have so clearly failed to preserve traditional societies from collapse.

The stability of traditional societies was precarious precisely because those societies were not *conscious* of the rightness of their ways and thus were unable to identify alien influences as threatening. Future societies will be stable only if the knowledge of what is best for the continued well-being of those societies is cherished and constantly renewed by each member, so that each is able continually to adapt that knowledge consciously and ultimately intuitively to new demands.

What is required is not a return to former social patterns characterised by the submergence of individuality beneath a traditional group ethic - which makes a society weak and unable to resist, as history shows, such threats as extreme materialism or Fascism (right- or leftwing) - but the strengthening of that group ethic through development of the true individuality. (A chain is only as strong as its weakest link.) Such individuality, which is nothing else than the individual consciousness of man's place within that 'total order of things', is of course not to be confused with the present excesses of egocentricity which are so rightly termed 'asocial'. But it is only through the understanding of true individuality in terms of the evolution of human moral consciousness that such excesses can be accurately identified and subjected to due criticism without at the same time rejecting the valid advance in consciousness which is the only real human progress. To reject individualism out of hand (and equally to correlate monotheism with its worst excesses) is to throw the baby out with the bathwater and to counter the cause of true progress. Yours faithfully, Paul Carline Eccles, Manchester.

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