POISON IVOR
The latest in what is now a relatively long list of Ministers in charge of environment is Senator Greenwood. Greenwood’s “portfolio of bits and pieces” includes Environment, Housing and Community Development. It is a combination of three former Departments, Environment, Urban and Regional Development, and Housing and Construction.

Greenwood’s background is far from encouraging: support for the aggressive police forays into Melbourne University on a hunt for draft dodgers, efforts to retain the death penalty in the ACT, attacks on the Vietnamese moratoriums, support for Springbok tours and alleged softness on Croatian terrorists. According to a Country Party colleague quoted in the ‘Age’ 1/1/76, Greenwood – The latest in what is now a relatively long list of Ministers in charge of environment – has already moved to cut off technical assistance grants to voluntary environment groups.

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THE FEDERAL DEPARTMENT OF ENVIRONMENT, HOUSING AND COMMUNITY DEVELOPMENT

THE FEDERAL DEPARTMENT OF ENVIRONMENT, HOUSING AND COMMUNITY DEVELOPMENT

OUR VERY OWN FBI REVELATION
The Editor of Not Man Apart, FOE’s International newspaper, Tom Turner, recently wrote the FBI, asking for “information regarding Friends of the Earth” that the FBI had collected. What they sent back is edifying, if not particularly illuminating.

The FBI admitted to possessing four references to FOE. The first three were mere mentions of our name and address (or at least in two cases). The final mention is worth quoting for the light it inadvertently sheds on the FBI, President Nixon, and the quality of federal government in general. The FBI said:

“Reference Deleted indicated that (reference deleted) was convinced that the SST was defeated by those individuals and groups who are hostile toward President Nixon and will do anything to thwart the Administration no matter how worthy the project. (Reference deleted) indicated that (reference deleted) had recently met one (reference deleted) who heads up an organization known as ‘Friends of the Earth’, as well as (reference deleted) the Sierra Club, who told (reference deleted) they had 100,000 people in their organizations, were recruiting more all the time, that they had defeated the SST, and that they were going to defeat President Nixon in the next election.”

THE FOE LEAK BUREAU
Given the way things are in government and industry, a great deal of information vital to the interests of the community never gets out. Some of it is simply not noticed by interested people because of limited circulation and some of it is, of course, purposely withheld.

FOE believes that those who anonymously leak relevant information perform a public service of the first rank. In their absence, bureaucratic secretiveness and corporate self-interest too often succeed in suppressing essential information, frustrating the process of informed and democratic decision-making.

We believe that many employees of the AAEC, of ‘independent’ national laboratories, of private companies, of government departments, of equipment manufacturers, of utility companies, have more than once thought “the public really ought to know about this”. But it is sometimes pretty hard to know how to reach the public. A major obstacle is the difficulty of identifying individuals and groups who will be interested, responsible and effective in using the information.

Friends of the Earth hereby volunteers to serve as a conduit for information – a Leak Bureau.

The events of the next few months are crucial to the decisions being made in Australia and overseas. We urge your support in any way that is possible, for every individual has the basic right to participate in these decisions.

AUTUMN'S GOLDEN EQUINOX
“The dimming of the sunlight after the brave shining summer; the coming of the quiet days when the leaves become coloured; the joys of the fall; these things are always a little sad. We are aware that we are not part of the eternal round of the material world. Change is the key to it all, the orderly sequence of events, the reaping and the sowing, the growing and the declining. There has always been a hope of renewal and an understanding that the rhythm of the earthly life is but one aspect of all manner of rhythms in nature. The old astrological identification with the sun has always been mingled with the pictures of the inner mind. The sun of autumn is always glorious and always sad.”

– C.A. Burland ... Myths of Life and Death
We attempted to publicize these facts at the time Anthony's statements were made. However, only the ABC A.M., which had checked out our story and found it to be correct - allowed any interest. Source: Nucleonics Week, Nov 22, 1976. Order now - there is a serious shortage of uranium. Energy in Japan (published by the Institute of Energy Engineers) Tokyo June 1976. "On the nuclear power, there's a serious shortage of uranium. Energy in Japan (published by the Institute of Energy Engineers) Tokyo June 1976. "On the nuclear power, there's a serious shortage of uranium."

**CHLOROANE & HEPALTHLOR BANNED IN US**

The US Environmental Protection Agency has ordered an immediate ban on the use of the pesticide chlorophene and chloronaphene on the grounds that continued use would create "serious hazard" of cancer.

**LOVEJOY'S NUCLEAR WAR**

"LOVEJOY'S NUCLEAR WAR: IS A NEW TYPE OF ANTONICULAR FILM WHICH ATTEMPTS TO DEFEND THE NUCLEAR INDUSTRY..." "LOVEJOY'S NUCLEAR WAR: IS A NEW TYPE OF ANTONICULAR FILM WHICH ATTEMPTS TO DEFEND THE NUCLEAR INDUSTRY..."

**MENPOT**

The NRC's (now the Nuclear Regulatory Commission) is concerned about the potential for accidents at nuclear power plants. The NRC's (now the Nuclear Regulatory Commission) is concerned about the potential for accidents at nuclear power plants.

**TOO MANY PEOPLE?**

"Most of us live on less than half of Earth's total population. The earth's capacity is limited by its resources and the amount of people that can be supported. The earth's capacity is limited by its resources and the amount of people that can be supported.

**GREENPEACE NEWS**

"Finn Heineman and "La Fishe" have returned to Australia and Melbourne where they are now preparing for a campaign against nuclear power plants. Finn Heineman and "La Fishe" have returned to Australia and Melbourne where they are now preparing for a campaign against nuclear power plants.

**FAMINE 1976**

"In the last two years, the 1.9 million malnourished and the 3.2 million famine victims in northern Africa have been the most affected. In the last two years, the 1.9 million malnourished and the 3.2 million famine victims in northern Africa have been the most affected.

**CHAIN REACTION NO. 1 1976**

"The Australian Council of Trade Unions held an executive meeting over the nuclear power issue. The meeting was attended by representatives from all around the country. The meeting was attended by representatives from all around the country.

"The Australian Council of Trade Unions held an executive meeting over the nuclear power issue. The meeting was attended by representatives from all around the country. The meeting was attended by representatives from all around the country.
Dear Sir,

I am a Japanese citizen, resident in Australia (during the last 10 years) and concerned with environmental and technological problems. I have just read the long entitled "Japan's Uranium Fissile" in Chain Reaction November 1976 issue and am greatly impressed by the depth in which you dealt with the scene of Japan. What is described is quite accurate and not exaggerated and need not be supplemented very much to represent reality. I applaud the efforts made by you to grasp the situation in Japan despite the various barriers to obtaining information. I fully endorse the conclusion reached which is relevant to the decision to be made by Australians on uranium mining and export.

Yours sincerely,
(Dr. Asahoro Ishiyama)
Lyndfield, N.S.W. 2070

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Editor's comment:
Ms. For Mr. J. Nelson is correct - the 'skull'-incident was meant to refer to the 1950's not the 1970's. While I am unable to verify whether or not the incident was employed by the BMF, the incident which took place in the 1950's is referred to on p. 105 of Rose Anthro's book 'The Uranium Hunter' published by Rigby in 1971. Anthroff wrote: "Men of the Bureau of Mineral Resources working on a radio-geometric survey of the new field had a grim mission on their teeth - a grimy Australian skull removed from a burial cave. The area was full of signs of the original stone-age settlement, but no live Aborigines had been seen. One look at what Toby Stecker and his men had done to their landing grounds was probably of energy was more than that of the exploration team, and included remote location of the burial site from which the skull was removed."

I have found one of the times expressed in your bulletin of events most appropriate to include in your valuable note. 

Thanks,
(N.B. "star*" FOE/FPG)
Box 17 Edge Hill, 4870

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Dear Sir,

Received your info (much thanks) and associated FOE materials with much enthusiasm after returning from my forced visit from society, and will try to take a few minutes to explain what FOE/FPG is if up to, where is it heading etc.

I, myself, have left the Cape York Environment Centre and now situation in Kuranda, where I'm designing and building my long awaited "Strawberry Energy Off-set" house and have been working and doing work on the living environment. I am also writing to you as I am also able to offer the following comments - Toby Stecker's book is currently available through FOE/FPG and the present volume of the journal is being prepared for publication. A number of the articles in the series have been published in the "Aboriginal and Torres Strait Islander" issue of the Australian Aborigines: A Study of the Living Race, which is scheduled for publication in early 1977.

I would like to add a few comments on the recent experience of the environment and the living environment. I have been living in a remote Australian town for the past few years, and the experience has been very enlightening. The town is located in a remote area, and the residents are mostly Aboriginal and Torres Strait Islander people. The living environment is characterized by a strong sense of community and a deep respect for the land. The residents are actively involved in protecting and preserving their cultural heritage and the natural environment.

I would like to elaborate on the importance of the living environment and the need to focus on community involvement. The living environment is a key factor in the overall well-being of the community. It is important to recognize the interconnectedness of the living environment and the larger social and political systems. The residents have a deep understanding of the land and its resources, and this understanding is reflected in their daily lives. The living environment plays a critical role in shaping the identity of the community and the sense of belonging among its members.

Thank you for providing me with the opportunity to share my thoughts on the living environment and the need for community involvement. I appreciate the efforts of the FOE/FPG organization in promoting awareness and action on these issues. I look forward to further discussions and opportunities to collaborate on initiatives that promote the well-being of the community and the environment.

Sincerely,

[Signature]
THE RANGER URANIUM BLUES

AN IMAGE OF A MIXER’S DREAM MERGED WITH A SUNSET SKY

ABOVE THE MOUNTAIN RANGE EXPERIENCE OF BIRDS AND KANGAROOS

IS THE CONTRAST OF OPPOSITE IMAGES THAT PAINTS THE RANGER URANIUM BLUES

The Ranger Uranium mine site lies below Mount Brockman weeping trees. The native aboriginal population lived in harmony with Mount Brockman, and the surrounding Alligator River’s Region, for 25,000 years. The introduction of the buffalo and wild pig by British settlers, in the 1830’s, upset this natural harmony. Today, the Region is facing the even more daunting prospect of becoming the world’s largest ‘Uranium Province’.

The region comprises the catchments of the South and East Alligator Rivers. In the south and the east lies a rugged, largely untravellable plateau. Its steep edges form the spectacular Arnhem Land escarpment that rises 500-2000m above the undulating plains of the lowlands. Streams divide these plains laterally, one or the other of the Alligator Rivers or to extensive flood plain areas between them. The flood plains, which are inundated annually by fresh water, begin where the stream systems leave the lowland country and extend east and west to the Alligator Rivers, along the rivers in wide bands, and north to the tidal flats of the river estuaries.

The year is marked off by the ‘wet’, from November to March, and the ‘dry’ from May to September, with April and October as transitional months. The water over the magenta wetlands gradually disappears, as the dry approaches. Virtually no rain falls in the dry.

To experience the first rays of sunlight rising over Mount Brockman or the dance of a thousand native birds over a flood billabong is to experience a part of the Alligator River’s Region. The rich diversity of habitat, ranging from rocky escarpment country to pockets of lush monsoon rainforest, makes the Alligator River’s region a delicate and irreplaceable heritage.

This diversity gives rise to its rich fauna and flora. About 51 species of native mammals, 78 species of reptiles, and at least 230 of birds are known. Among the plant groups are scarce relic communities of dense evergreen, non-eucalypt rainforest and of semi-deciduous forest-survivors from another age and climate.

THE CENTRAL QUESTION

The immediate breakpoint of the Region would be caused by a proposed townsile of 15,000 people to service the ‘province’. This townsile will not avoid the social problems that other mining towns have evolved. And the attitude of the miners, who said ‘uranium mining will benefit everyone in the world’ to the aboriginal community will be multiplied a thousand fold. The potential risk of radioactive release into the Region, is too great a risk for us to take.

The issue of uranium mining, and its subsequent use in the nuclear fuel cycle, is not a mere technical question, but an ethical question. On a local, and global level, Industrial society has two paths to follow: we can continue our present course as a high environmental impact society, with centralised political central control and complex technology, or we can, take the alternative path to a decentralised society and a softer life style based on real human needs. The central question of the nuclear debate is simply, which is more important money or life. Uranium mining and Nuclear Power represent money, not life. There are adequate alternatives to nuclear power available, that are based on the clean energy of the sun. Yet, they are not implemented because they would reduce the profits of multinational companies. The answer to this central question must come from every member of society and not from those whose interests are at stake. This answer will decide the fate of our tiny planet.

KAKADU NATIONAL PARK

In its publication “Notes on a Proposal for a National Park in the Alligator Rivers Area”, the Northern Territory Reserve Board commence by stating that it administers National Parks in the Territory. Then follows the apt sentence “There are not many.” In 1965 the Board proposed to the Commonwealth Government the establishment of a national park to consist of most of the land between the East and the South Alligator Rivers and bounded on the east by the Arnhem Land Reserve. The area was about 2,478 Square miles. The Board stated that it was anxious to acquire a large tract of country in the Northern Territory while it is still available.”

The subsequent history of the Park is one paralleled in most other potential wilderness reservations throughout Australia - the exclusion from the reservation of all areas of proved or possible commercial value. Senator Gordon, representing the Minister for Territories, said that “the Government is sympathetic to the creation of more national parks, but in this case the Reservation is complicated by an Aboriginal Reserve, a wildlife sanctuary and mining activities.” To July 1966 and April 1967 the Reserve Board again submitted the proposal, but “in desperation” submitted alternative for a park greatly reduced in area. In January, 1968, the Acting Administrator recommended a reservation of 1,000 square miles, stating that there were “no barriers to this reservation.”

In November 1968, Mr. Sam Wears, Parks Advisor to the U.S. Department of the Interior, stated that “The Northern Territory could be the site for one of the best national wildlife parks in the world.” He added “that there is no time to waste in getting the area set aside”.

CHAIN REACTION NO. 1 1976
THE DEPOSITS

In the early 1970s, a number of commercial value were known in the area. In the early 1970s, following the issue of authorities to prospect, major uranium deposits were located in five locations. A number of smaller deposits were known to be prospective. Virtually the entire area of the basin is covered by arid and semi-arid outcrops. Sediments in the area include alluvial deposits, ranging from the valley floor to the floodplain.

THE JABLUKA LEGEND

On 15 October, 1973, the Aboriginal title was extended to the area, encompassing all of the area in the outcrop. The title includes all of the area in the area. The title also includes all of the area in the area. The title is for the benefit of the Aboriginal people. The title includes all of the area in the area. The title includes all of the area in the area. The title includes all of the area in the area. The title includes all of the area in the area.

THE ALLIGATOR RIVERS REGION

The Alligator Rivers region is located in the Northern Territory of Australia. It is one of the most remote and isolated regions in the country. The region is characterized by a hot, arid climate and a sparse population. The main rivers in the region are the Alligator, Manning, and Gibb Rivers. The region is known for its rich biodiversity, including a variety of plants and animals.

MINAMATA - A PRELUDE

The history of heavy metal pollution in the modern, industrial world shows how little humans know about the effects of disposal of heavy metals on the environment. The disposal of toxic materials, without regard for the consequences, is a significant problem. It is not always clear how much pollution is acceptable, what levels are safe, and what can be done to reduce it.

APATITY AND INACTION

No companies or governments involved in the disposal of heavy metals have been held responsible for the tragedy caused by the discharge of toxic materials. This is partly because of the lack of public awareness and the lack of regulation. In addition, many companies have been able to avoid accountability for their actions.

METAL MERCURY Fungi

Another use for which metal mercury may enter people's diets is through the use of metal mercury fungicides on seed grain. Although evidence indicates that the use of these fungicides does not improve yields significantly over non-mercury fungicides, this practice continues because it is a cheaper and more convenient method of control.

OTHER HEAVY METALS

Two years after the villages of Minamata began to show signs of mercury poisoning, the world learned of a new and terrifying disease: Minamata disease. The disease was named "Tsuboi-bai" by Tsuji and Ouchida.
THE PAIN OF MINAMATA....

Photographs from "Minamata" by W. Eugene Smith and Aileen M. Smith.

Page 14
The Verdict

An Excerpt

"...It must be said that a chemical plant, in discharging the waste water out of the plant, incurs an obligation to be highly diligent to confirm safety through research and studies regarding the presence of dangerous substances mixed in the waste water as well as their possible effects upon the animal, the plant, and the human body, always availing itself of the highest skill and knowledge; to provide necessary and maximum preventive measures such as immediate suspension of operation if a case should arise where there be some doubts as to safety...in the final analysis...no plant can be permitted to infringe on and run at the sacrifice of the lives and health of the regional residents...."
The recent effects of the mining and refining of bauxite are clearly set out in a recent article in Black News Service (February, 1976).

NABALCO MINING THREATENS HEALTH OF YIRRKALA PEOPLE

The bauxite mining operations of the Swiss-controlled multinational company Nabalco, on the Gove Peninsula, are seriously endangering the health of the Yirrkala aboriginal population, as well as that of the local wildlife. Due to the spillage of waste products, particularly that known as "red clay", many people in the area have been hospitalised with fish poisoning. It is acknowledged that within one km radius of the major discharge point there is a chemical sludge between two and three metres covering the bottoms of Melville Bay. This mud is left over when the raw bauxite earth is mixed with caustic soda under intense heat and pressure to dissolve the alumina. It is pumped into inlets where it seeps into the sea and contaminates the mud and other seafood. It is becoming a threat to the survival and well-being of the Aboriginal community of Yirrkala. It deprives them of one of their most important sources of nutrition. The Aborigines have for centuries relied on sea food caught in Melville Bay. They are now reluctant to eat anything caught within a 20 km radius of its intake.

In a two month period in 1975 over 20 Aborigines were hospitalised or received treatment for fish poisoning. Nabalco workers have also been affected, as have one of the doctors and his family. For some individuals this has meant having to give up eating fish altogether.

Yirrkala flora especially affected by the poisoning are the Gunutu, whose area extends around Melville Bay, the Rinnajings, whose land includes Broome Island, and the Gjumarpungip who are starting an autotom in the area. It is clear that the mining companies lack of respect for the Yirrkala people not only endangers their culture and their way of life, but their very health.

Photo: Detron Baccin

NORTHERN TERRITORY

A century ago, the ball-bearing was invented. It reduced the coefficient of friction by a factor of a thousand. By reducing a well-calculated amount of bearing between two needle-like millimeters, a man could now ride in a day what took his ancestors a week. The ball-bearing also made possible the bicycle, allowing the wheel -- probably the last of the great mechanical inventions -- finally to shed the fetters of self-powered mobility.

Men, unknown to any tool, got around quite efficiently. He carries one grain of his weight over a kilometer in ten minutes by expending 0.76 calories. Man, on the other hand, can cover less than one kilometer in that time. Thus the century of the ball-bearing has increased the rate of efficiency men around the world and made it history. At this rate, peasant society spends less than five per cent and nomads less than eight per cent of their respective social time budgets outside the home or the enclosure.

Man on a bicycle can go three or four times faster than a pedestrian, but uses five times less energy to do the same work. He can carry one gram of his weight over a kilometer at full road at an expense of only 0.15 calories. The bicycle is the perfect transformer of leasamanship. Equipped with this tool, man optimises the efficiency of not only all machines, but all other animals as well.

The invention of the ball-bearing, the tapered-screw wheel and the pneumatic tire taken together can be compared to only three other events in the history of transportation. The invention of the wheel at the dawn of civilization took the load off man's back and put into the barrow. The invention and simultaneous application, during the European Middle Ages of a stirrup, the harness and horseman increased the productivity of the horse by a factor of up to five, and changed the economy of medieval Europe; it made frequent ploughing possible and thus introduced rotation agriculture; it brought more dense fields into the reach of the peasant, and thus permitted landowners to move from six family holdings into 100-farm families, villages, where they could live around the church, the square, the jail and later -- the market. It allowed the cultivation of northern areas and directed the center of power into cold climates. The building of the first ocean-going vessels by the Portuguese in the fifteenth century, under the sag of developing European capitalism, laid the solid foundations for a global economy.

The invention of the ball-bearing signified a four revolution. It created an option between freedom in equity and more speed. The bearing is an equally fundamental ingredient of two new types of locomotion, respectively indicated by the bicycle and the car. The bicycle lifted man's motorisation into a new order, beyond which progress is theoretically not possible. In contrast, the accelerating individual muzzle enabled neither who was in a rush to get to the base with a minute exclusionary tyrannical monopoly of a ritual sociality in the technological world useful device is a new to the kinship of progressively parallelizing solar system.

The monopoly of a ritual sociality over a potentially useful device is nothing new. Thousands of years ago, the wheel took the load of the cart, but it did not so on the European landmass. In Mexico, the wheel was well-known, but never applied so transport. It never exclusively for the construction of carriages for toys. The taboo on automobiles in America before Corbus is no more puzzling than the taboo on bicycles in modern traffic.

It is no means necessary that the invention of the ball-bearing continue to serve the increase of energy use, and thereby produce time scarcity, space consumption and class privilege. If the new order of self-powered mobility offered by the bicycle were protected against its valuation, parallel and risk of the firing of the rider; it would be possible to guarantee optimal shared mobility to all people and put an end to the imposition of maximum privilege and exploitation. It would be possible to control the patterns of concentration if the organization of space were constrained by the power man has to move through.

The bicycle is getting more and more popular, and they are also cheap.

With his much lower salary, the Chinese acquires his durable bicycle in a fraction of the world's hours of work, by the efficiency of the purchase of his obstacle car. The cost of public utilities needed to facilitate the leisure traffic versus the more primitive and oftentimes high-speed transportation is proportionately less than the price differential of the vehicles used in the two systems. In the bicycle, energy needs are only at certain periods for data traffic, and people who live far from the surfaced path are not thereby automatically isolated as they would be if they depended on car trains. The bicycle has added man's radius without shunting him onto roads he cannot walk. Where he cannot ride his bike he can usually push it.

The bicycle also uses little space. Eighteen bikes can be parked in the place of one car; thirty of them can move along the space occupied by a single automobile. It takes two lanes of a given size to move 40,000 people around a block in one hour by using modern train. Four to move them on a bus, 12 to move them in their cars, and only one lane for them to pedal across the city. Of all these vehicles, only the bicycle really allows people to go from door to door without walking. The cyclist can reach new destinations of his choice without his tool creating new locations from which he is barred.

Bicycles let people move with greater speed without taking up significant amounts of scarce space, energy or time. They can spend fewer hours on each mile and still travel more miles in a year. They can get the benefit of technological breakthrough without putting undue claims on the schedules, energy or space of others. They become masters of their own movements without blocking more of their fellow. Their new tool creates only those demands which it can also satisfy. Every increase in motorized speed causes new demands on space and time. The use of the bicycle is self-limiting. It allows people to create a new relationship between their lives and their lives, between their territory and the pulse of their being, without destroying their inherited balance. The advantage of modern self-powered traffic is obvious, and ignored. That better traffic runs faster is stated, but never proved. Before they ask people to pay for it, those who propose acceleration should try to display the evidence for their claim.

CHAIN REACTION NO. 1 1976

A gritty conflict between bicycles and motorists has just come to an end. In Vietnam, a hypermodernist army tried to conquer, but could not overcome, a people organised around bicycle speed. The lesson should be clear. High modernism is an over-ripe fruit. Both those who defend and those against whom they are launched, but they are not very limited by the laws of technology, for in Vietnam the Vietnamese will await them when learned in war to an economy of peace, when they have acquired the values that made their victory possible.

The dismal likelihood is that the innovations, for the sake of industrial progress and increased energy consumption, will tend to defeat themselves. The new technology and the numbers and economy into which American armies had forced them by depriving them of space but fattening them with technology and numbers.

The text for this article is excerpted from Ivan Illich's Energy and Equity Harper & Row, New York, softcover, $8.85.
CONSERVATION IN CHINA

"Our great leader Chairman Mao and the comrades of the Central Committee have always paid great attention to the work of environmental conservation. At the same time along with the development of industry and the economy, we are required to pay attention to protecting the environment and the people's health. During the twenty or so years since the founding of the People's Republic of China, we have changed our country from a poor backward country, to a socialist state with initial prosperity."

Mr. Maiu Tu Sung

The main preoccupation of the Chinese people and government is undoubtedly development, the overcoming of the pollution of poverty which cripples most of the under-developed world. But when an environmental issue is taken in China, it is not merely paid lip-service. The conservation, recovery, and maintenance of the environment, formerly devastated by war and by centuries of exploitation, is a serious commitment in China.

It is not easy to return with glowing reports and euphoric impressions of the energetic and even feverish reconstruction of China, and fail to communicate to the Chinese reality, its implications. Chinese communists are not angels; people strive on historical monuments, and to my mind are very dangerously. There are more serious problems of erosion, and the simple facts that for five hundred million Chinese peasants, each day means grinding menial labor beneath the boiling sun. It is also impossible to generalize about China from a three-week visit. Although some of the verdicts are long, it is important to allow our Chinese hosts to explain themselves.

APPROACH TO ENVIRONMENTAL CONSERVATION

Mr. Maiu Tu Sung, the leading member of the Environmental Protection Division, told us that the approach is to development and environmental protection upon our arrival in Peking. "We have the general policy of overall planning and national distribution, multi-purpose use, turning the harmful into the beneficial, resting on the masses, everybody taking a part and protecting the environment and benefiting the people." Environmental protection actions are aimed to solving two concerns: public health and recovery and conservation of the rural environment. As Mr. Maiu said, "To improve and protect the environment is of interest directly to the people."

There is a growing optimism in China about development. In deep contrast with the pessimism which underlies much of the propaganda of the ecologists of the West. Environmental concern is one aspect of socialism, the people's livelihood. "The idea that man can conquer nature has struck increasingly deep roots in people's minds ... People in new China look upon nature from the materialistic dialectical viewpoint. Chinese peasants began to take hold of the initiative in dealing with nature after they became masters of the country. They have faith in their own strength, confident that they are able, step by step, to conquer towering mountains and turbulent rivers, no matter how unfavourable the conditions are." (Special issue for National Day, October 1974, Hsinhua News Agency). We pressed for a further explanation of man's superiority over nature, etc. "Man conquering nature" was explained as follows: Man investigates, understands and establishes the laws of nature. Man does not transcend the laws of nature, but turns them to good use. The notion of man dominating nature which is equated in the west with 'conquering' nature was explained within this framework. Our Chinese host was most pragmatic that man does not transcend the laws of nature.

Let's see more what Mr. Maiu meant in greater detail.

OVERALL PLANNING

Our hosts emphasized that overall planning had been made possible in China by the abolition of the private ownership of land and the means of production. The State can thus regulate both the pace and scale of development of industry and agriculture. The Chinese say "Agriculture is the Foundation and Industry is the leading factor." Unlike most underdeveloped countries where capital investment is channelized in industrialized areas, China promotes agriculture first, complemented by light and, more recently, by heavy industry. The director of the Peking Petrochemical Complex explained to us that "In China, the whole development of our economy is carried out in a proportionate way. So the degree of automation and mechanisation of our industry has also been developed in a proportionate way." A great debate and political revolution occurred in China over this principle in the 1950's and the "Lui Shao-Chi Revisionist Line" in development and environment protection has been decisively rejected. The Chinese believe that in order for light and heavy industry to prosper, agriculture must first advance in order to increase the output of grain and raw materials. Thus, incentive is provided by maintaining a constant demand at rural production increases, proportionately smaller rate of taxation on communal rural production. In environmental affairs the "socialist roader" Lui Shao Chi line of "profit in command" was also rejected during the Cultural Revolution. Mr. Li, head of the Shen Yang Chemical Works Environmental Protection Section explained that "To do our work well, we regard environmental protection as a very important part of Chairman Mao's revolutionary line... We must put politics in command when doing this work."

Environmental Protection in China is put into effect on the principle of "democratic centralism." Mr. Maiu explains: "We should strengthen the work of management and regulate, supervise and inspect all the work from the central level to the grassroots level, and even in some of the large and medium-sized enterprises. In the State Council there is the leading group of environmental protection, and under the leading group of environmental protection there are many offices and staffs and the regulations and standards are being formal..."
Even if nuclear power was perfect, clean, cheap and perfectly safe it would not solve this problem. Other resources are becoming scarcer and we face the problem of depletion for them as well.

Either we have to find an adequate living standard or become conscious of resources. In Schumacher's book "Small is Beautiful" a different kind of philosophy of outlook on resources is described. This would recognize the finite nature of non-renewable resources and their usefulness. They would be used when essential and with great reluctance. In contrast we have used them widely at a price with the aim of generating "wealth". We have hoped (somewhat arrogantly) that the extra wealth and knowledge acquired would lead to solutions when they were required. The first outlook may seem cautious but it is also prudent.

Consider an example: people like to be protected from cold and have devised a large number of ways to do this. Most people in the world use extra clothes, or burn firewood or diesel. Clothes clearly is the best method in terms of non-renewable consumption but time goes by and the population grows. We can use coal, oil or air either directly or through electricity generated from non-renewable resources. We were guided by the principal we would use the latter with reluctance. But more often than not the use of electricity and product of the fact that for each unit of the heat that comes up from three units of heat have gone up the power station chimney. And for what? A little extra convenience, the magnetic flux of the walls. There is no more warmth in using the electricity that requires four tons of coal away than in the tin that burns directly. It becomes evident that instead of warm fringe and were concerned to maintain our collective resource wealth then electricity would never be used - more likely we'd use clothes. We certainly wouldn't have ended up requiring enormous quantities of energy and having to contemplate the use of an incredible, complex and dangerous technology like nuclear power.

FOE: On coming down to the economics of nuclear power what do you think of the trend in the stability of the market and the fact that nuclear power is becoming more expensive due to pressure from groups such as Friends of the Earth. I am thinking of the economic effects of US reactors which have been causing problems in terms of fuel and generation costs. Do you feel that the nuclear power industry is unusual enough for nuclear power to be a sustainable energy source?

JF: There is a recent paper produced by two MIT economists (Blaup and Daniel) which I believe is the first evidence for the more rapidly escalating costs of nuclear power generation compared to those of conventional electricity generation. They point out that this was not a direct result of the response of the nuclear industry to increasing public awareness and anxiety about nuclear power. The use of so-called "industrious" safeguard measures were attributable to their response. They argued that when special legislation appears the usual market signals such as insurance premiums and liability) which discourage activity are perceived as hazards then the market will find such ways as reflecting perception of high social costs by making such activities cost more.

The capital costs of nuclear power are already extremely high. An estimate reported in "Nuclear Week" was that the capital costs would need £1.8 - 1.9 million per GWe for a market. These estimates were based on capital cost estimates which are quite so prove to be too low. The sums and ratios involved are so large that the normal method of calculating capital seem quite inadequate.

In the long range perspective we could be staring at because of the enormous costs involved but a friend has asserted that if we may be able to depend on electricity that the industry vaults, for practical reasons, have to be kept away from governmental subsidy. Clearly I don't think the public has to be made more aware of the issue; more anxious in an informed kind of way.

FOE: If change it to take place how will it and in what direction would you see this change?

JF: No energy future is free of change but of least all the "business as usual" future. The change that has occurred since World War 2 has been extremely rapid and this future involves the continuation of this change. We have to stick to the kind of future we want. Low energy societies can allow a great variety of lifestyles whilst high energy society tends to to restrictive and offers less scope for diversity.

The demand for capital and other resources will be much higher if we try to follow the "business as usual" future. Almost inevitably the costs of saving are less than the costs of replacing. We need to examine what we want, how possible it is and how we best can achieve it with the minimum demand for our resources. To argue that economic growth will magically provide it is folly. What is required is growth in things that can.

Low energy societies do exist - I saw some in remote areas in Nepal and elsewhere. These do not have all the "comforts" but I was incredibly.

Civilized, creative and artistic. Some use sophisticated but simple water mills and windmills to augment the energy of themselves and their animals. They are self-sufficient in food production and the people rarely move to neighboring villages. All this may be unsustainable to us but three people were happy. Our possession of saving wages and a vehicle and entertainment devices has made us no less. I would suggest that we should want it or could not be in the same way than the benefits of material benefits have to be considered. It seems to me that what we the only future is to save the energy and to save energy..

An alternative course would be for our institutions to consciously produce in order to save energy. The invention of inventions cut up to 50% from the energy demand for domestic heating, for example. Most of the methods for cutting waste is known. What is required is the will to see it as important. But it is only part of solution. High technology solutions have enormous appeal because they are looking for solutions to energy problems. Solutions need not exist nor the difference in day and night. But we must put the emphasis on energy efficiency and on the dominance of our species would be a step towards a more reliable, viable and satisfying relationship with our Earth and the life we share it with.
FOOD

We’ve decided to include a few vegetarian recipes in our 76 issues of Chain Reaction.

For some, this may be the first attempt at trying a vegetarian diet, for others, more experienced, new combinations, ideas and recipes...

What better way to start a new meal than with breakfast?

Here is the famous ‘crunchy granda’ recipe.

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I have made it a very personal one, i.e. if you have a ‘sweet tooth’, the extra sweeter may be added. If you like a nutritious breakfast and have the time to eat it, you can add all the optional ingredients.

CRUNCHY GRANOLA

Dry Ingredients

4 cups rolled oats
1½ cups wheat germ
1 cup desiccated coconut
¼ cup sesame seeds
1 cup unprocessed bran or
regular
1 cup sunflower seeds

Wet Ingredients

¼ cup honey
2 tablespoons water

LUNCH

This is the most difficult meal time for FOE folk and it probably is for all other non-vegetarian working people as well. The most nutritious ideas we can think of, in ‘semisemiches’ and full.

Salad semiches: lettuce, cheese, tomato, grated carrot, sprouts

Semisemiches: cottage cheese or cream cheese with dates, prunes, dried apricots soaked/dried cheese with thinly sliced zucchini or cucumber.

TEA TIME

Members in a household vary a great deal, therefore, we have listed only the ingredients for our salad, and not the amounts.

COLOURFUL CRISPY SALAD

Place in a large glass bowl (so you can see the colours!): corn lettuce leaves - bite size, then sprinkle with carrot thinly sliced young zucchini

A sprinkle grated beet root and roasted sesame seeds

another layer of lettuce or finely chopped cabbage, Brussel sprouts

Top with alternate wedges of tomato, cheese strips, and chopped parsley.

Use your favourite dressing or

Dressing: 3 Tbs. cider vinegar
½ tsp. honey and
½ tsp. mixed herbs

Serve with potatoes: steamed or baked in their skins

and any vegetables in season: steamed corn on the cob or fresh young zucchini slices. Spotted a few table of sunflower seeds in the zucchini towards the end of cooking time.

Directions: Combine all the dry ingredients in a large bowl. Combine all the wet ingredients in a saucepan. Heat and stir until a smooth mixture develops, then pour over the dry ingredients. Stir until all ingredients have blended together. Spread on even layer of mixture onto a dry cookie tray and place in a 200°C - 250°C oven. Slowly bake until a golden brown.

Cool Store in a covered glass jar or tin.

Optional Ingredients:

Sweet granola - add ½ cup raw sugar to dry ingredients

Protein granola - add 2 tbs soy sauce

2 tbs. skim milk powder

2 tbs. lecithin granules

Extra:

Nutritious granola add ½ cup crushed nuts

¼ cup chopped dried fruit.

A bowl of granola, a glass of freshly-squeezed orange juice, two pieces of white meat and a cup of cereal beverage (coffee substitute) should keep you feeling fit until lunchtime.

Friends of the Earth and Bulfinch Books in the United States have produced a unique information recipe book titled: How to Enjoy a Rich Frugalist Menu by Getting on Top of the Food Chain or DIET FOR A SMALL PLANET by Frances Moore Lappe. This book is all about protein. How it is used and wasted, why the body needs it, what non-meat combinations can be used and recipes incorporating these combinations.

In Melbourne, the RMIT Environment group and Food Co-Op have produced a book titled simply FOOD. But the information inside is far from simple. The Australian reader is exposed to the enormous amounts of investments they give to the multinational food companies each year by the products they buy every day. A section on packaging fails under the same category. On the last page, clear instructions on how to properly prepare the earth-loving foods, how to make beans sprout, a low garden hint and one or two recipes.

“Food” is available from FOE (Victoria) - see Publications Page.

FOOD WORKSHOP

The most energy-intensive food items in your kitchen are the throw-away aluminum-canned beverages, plastic-bottled milk, to dinners, frozen-prepared foods, and aerosolized cooking oil sprays.

A considerable portion of the energy expenditure in food production occurs in packaging. For instance, to produce a 6-ounce aerosol spray of cooking oil requires twice as much energy as an equal amount of bottled cooking oil or margarine requires.

The report ENERGY AND FOOD, authored by Albert Fritsch, Linda Dyas, and Doug Christon, is now available from CSPI. In this 80 page report, the amount of energy used to produce, process, deliver and market about 120 common foods has been calculated. A number of brand name items are listed in a summary chart that includes the amount of energy needed to produce both the food contents and container materials. From such data, conscientious consumers can choose foods low in energy and price, and high in nutrition.

Several practices emerge for reducing energy consumption while preserving high nutrition standards:

-Avoid non-returnable beverage containers. A 16 ounce non-returnable bottle used for RC Cola requires 1.76 KWH to produce. A 16-ounce returnable bottle requires 2.29 KWH to produce. But it can be reused 16 to 18 times.

-Avoid products with excessive packaging. Each supermarket plastic bag adds 0.65 KWH to the product’s total energy expenditure. Increase your purchase of unpackaged and bulk food items, and avoid small containers.

-Eat more vegetable protein in place of meat dishes, e.g., whole wheat bread, macaroni, or dried beans. Four times as much energy is needed to produce and market a pound of meat protein as a pound of vegetable protein. This is because 90 - 90% of the food-energy consumed by animals is lost as metabolic heat.

-Grow your own or buy fresh produce, instead of canned, frozen, or dehydrated fruit and vegetables. For example, one pound of white potatoes requires:

1.83 KWH - fresh, 2.629 KWH - canned, 4.38 KWH - frozen, 7.84 KWH - dehydrated (does not include packaging).

An economy guided by conservation entails converting to new and even more nutritious eating habits. In an era of resource scarcity, Australians will have to change many ingrained habits, including choice of diet. If not made soon by personal preference, these changes will be forced later by high prices and economic necessity. Fortunately, changes in food habits can save resources, save money and provide a more nutritious diet.
If there is magic on this planet, it is contained in water... Once in a lifetime, if one is lucky, one so merges with sunlight and air and running water that a whole eon, the eons that mountains and deserts know, might pass in a single afternoon without discomfort. The mind has sunk away into its beginnimg among old roots and the obscure tricklings and moundings that are inanimate things. Like the charmed fairy circle into which a man once stepped, and upon emergence learned that a whole century had passed in a single night, one can never quite define this secret; but it has something to do, I am sure, with common water. Its substance reaches everywhere; it touches the past and prepares the future; it moves under the poles and wanders thinly in the breathing of air. It can assume forms of exquisite perfection in a snowflake, or strip the living to a single shining bone cast up by the sea.

— Loren Eiseley

A selection of photographs from Earth's Wild Places:
1. Wilber Mills: Caribou flocking down from the forest
2. John Clear: Ye Elen
3. Alaska
FROM SONG OF THE EARTH SPIRIT
by Susanne Anderson

"He alluded then to the mining-company program
to drill deep wells for water that could sluice
pulverized coal to distant power plants:

"People are concerned with the water level on
Black Mesa. They say it is like draining the blood
out of the patient. The female mountain is being
cut up. It is something like manipulating the body
of the whole mountain, and she is being killed. The
same thing is happening with the male mountain.
Those drills are the same thing.
"People who have so much belief worry. If both
mountains die, the old prayers and the Navajo way
dies. The Navajo people will be dead."
And so too could die the Song of the Earth
Spirits:

It is lovely indeed, it is lovely indeed.
1. I am the spirit within the earth.
The feet of the earth are my feet
The legs of the earth are my legs

The strength of the earth is my strength
The thoughts of the earth are my thoughts
The voice of the earth is my voice

The feather of the earth is my feather
All that belongs to the earth belongs to me
All that surrounds the earth surrounds me

1. I am the sacred words of the earth.
It is lovely indeed, it is lovely indeed.
LOVING: Well, it's a sort of a complex and it is a difficult and important problem. It is the core of the debate, as I understand it, is that there are three main arguments. The first is that this is a problem that we have to face because of the way our economy works. The second is that we have to face it because of the way our society is organized. The third is that we have to face it because of the way our technology is developing.

LOVING: Let me take that one part at a time. GNP measures what it does. It measures the economic value of output, not the economic value of having someone else fill it out again. It is not a measure of social welfare. The GNP measures what it does, and the GNP is an economic value of having someone else fill it in. It is not a measure of social welfare. We want to grant for purposes of making that statement. I think it would have been perfectly consistent with the statement I made. You're talking about consumption and I'm talking about causality.

LOVING: But in general it is not true that the Gross National Product (GNP) is a measure of the health of the labor market. Employment which accompanied this, is that it is not true.

LOVING: Now, I would agree that I have mentioned some of the things that may be equally true that someone has already stopped polluting the river, which will presumably increase social welfare.

LOVING: I am sorry if you are saying that if someone pollutes the river the GNP is going to dip.

LOVING: Yes, it will increase in value it will probably increase probably because the GNP will also reflect building equipment to clean up the river.

PUBLIC PRESSURE  

LOVING: Yesterday I think you made reference to the fact that in the United States there were some 21 states which were considering a nuclear moratorium. That is correct.

LOVING: Now, my latest information is that many had legislation pending in the states to ban or to strictly restrict nuclear power and that there were referendum efforts in some 18 of the states.

LOVING: [Is this] aware of the Harris Poll public sentiment released in August?

LOVING: Yes.

LOVING:  

LOVING:  

LOVING: It is, I think, rather obvious that the airplane was professionally competent.

LOVING: I have to treat an expert in that case, did you not?

LOVING: Commonsense is not an art on herd-hungry and a good deal of promotional realism, well known for extracting the appendix of those who come within range.

LOVING: This, I think, you have taken a very special case.

LOVING: I agree.

LOVING: It seems to me that when experts disagree on matters which appear to be highly technical, the trouble is not that they do not know what the situation is, but that they do not know what the situation is. They have a tendency to think that because they are expertise, they have no commercial or emotional attachment to a particular aspect of the matter.

LOVING: Lately, I understand that, from your testimony, that you will go to the world to go — to assess the present dependence on central station electric power and to seek a new energy life style. Is that a correct characterization of your views?

LOVING: Broadly, the extent of the dependency if not as reptile as it is proposed to be and energy life style it is subject to many interpretations.

LOVING: Well, I am still wondering what such a broad statement as this is going to be at it.

LOVING: Yes, in varying degrees. Yet, we know, we know, we know, we know.

LOVING: Yes, in varying degrees. Some are more anathema than others. The difference between these is the amount of these. For others, you feel that you personally agree?

LOVING: I am an economist, I am not a sociologist, but I don't know if there is a test for what you mean by professional competence.

LOVING: In order to judge the question, I think I have a sufficient of supporting — as you read and understand literature which it is, and that for the purposes of the question, as opposed to any designating — that questions of the.

THE OLD EXPERIMENT ARGUMENT  

LOVING: I am an economist, I am not a sociologist, but I don't know if there is a test for what you mean by professional competence.

LOVING: From other medical experts?

LOVING: Yes, of course. Of course, I do not believe that you have a test for what you mean by professional competence.

LOVING: Indeed. There was no difference, there was a difference.

LOVING: But that is contradictory to the page in, which you give advice saying you should not trust experts. I don't quite understand; could you ever advise someone who don't, I mean.

LOVING: I said I should not believe an expert, I don't see an inconsistency.

LOVING: I'm sorry, I do. If I have a pain in my side and expect I have something serious, I am going to take some over the counter medicine and my gastrointestinal complication.

LOVING: On the other hand, let us suppose that the doctor you go to is a doctor, we say, a pharmacist, operates a hospital, has a complete consultation or an account with her heart medicine and has a good deal of promotional realism, well known for extracting the appendix of those who come within range.

LOVING: This, I think, you have taken a very special case.

LOVING: I agree.

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LOVING: Yes, in varying degrees. Some are more anathema than others. The difference between these is the amount of these. For others, you feel that you personally agree?
At noon on March 23, 1976, both Units 1 and 2 at Browns Ferry plant in Alabama were operating at full power, delivering 2,200 megawatts of electricity to the Tennessee Valley Authority.

Just below the plant's control room, two electricians were trying to seal air leaks in the cable spreading room, where the electrical cables that control the two reactors are separated and routed through different tunnels to the reactor buildings. They were using strips of sponge foam rubber to seal the leaks. They were also using candles to determine whether or not the leaks had been successfully plugged - by observing how the flames were affected by escaping air.

The electrical inspector put the candle too close to the foam rubber and it burst into flame.

The resulting fire, which disabled a large number of engineered safety features at the plant, including the entire emergency core cooling system (ECCS) on Unit 1, and almost resulted in a boil off/fill accident, demonstrated the vulnerability of nuclear plants to "one-failure" events and human fallibility.

Approximately 15 minutes passed between the time the fire started (11:20 a.m.) and the time at which the fire alarm was turned on. It was not until one of the electricians told the plant guard inside the turbine building that a fire had broken out that an alarm was sounded. However, confusion over the correct telephone number for the fire alarm delayed its being sounded.

Despite the fire alarm, the reactor operators in the plant control room did not shut down the two reactors, but continued to let them run. At 12:40, five minutes after the fire alarm sounded, the Unit 1 reactor operator noticed that all of the pumps in the emergency core cooling system (ECCS) had started. In addition, according to the official TVA report, some of the shutdown equipment began failing on Unit 2, and the high-pressure ECCS was lost at 1:15 p.m. Control over the reactor relief valves was lost at 1:20 p.m., and not restored until 2:15 p.m. at which time the reactor was depressurized by using the relief valves and brought under control.

On the Unit 1 side of the control room things were not going so well. According to the Unit 1 operator, "At about 1:15 I lost my control instrumentation, I only had control of four relief valves...At about 1:30, I knew that the reactor water level could not be maintained, and I was concerned about uncovering the core.

Had the core become uncovered, a meltdown of the reactor fuel would have begun because of the radioactive decay heat in the fuel.

In order to prevent the reactor water from boiling off, it was necessary to get more water into the core than the single high-pressure control rod drive pump could provide. None of the normal or emergency low pressure pumps were working, however, so a makeshift emergency was made, using a condensate booster pump. This was able to provide a temporarily adequate supply of water to the reactor, although the level dropped from its normal 200 inches above the core down to only 48 inches. Using the makeshift system, the Unit 1 reactor was under control, but by a rather thin margin.

Many instrumentation and warning lights in the control room were inoperative. The reactor protection system and nuclear instrumentation on both reactors had been lost shortly after they were shut down. Most of the reactor water level indicators were not working. The control rod position indicator system was not operational. The process computer on Unit 1 was lost at 1:21 p.m. (The computer on Unit 2 was inoperative because it was down for reprogramming).

Other systems were failing; at 2:43 one of the plant's four diesel generators failed, leaving the plant with a bare minimum of emergency on-site power supply.

To add to the confusion, the PAX telephone system failed at 1:57 p.m., making outgoing calls from the control room impossible for several hours. This represented a considerable hardship, because the control room had lost control over most of the plant's valves, and the plant telephone system was being used to instruct equipment operators to manually adjust certain key valves in the condensate booster system pumping water into the reactor core.

The fire fighting effort was not going well. Soon after the electricians had fled the cable-spooling room, a shift engineer had tried to turn on the built-in Cardox system in order to flood the room with carbon dioxide (CO2) and put out the fire. He discovered that the electricians had purposely disabled the electrical system that initiated the Cardox.

"I tried to use the manual crank system and discovered that it had a metal construction plate on under the glass and I tried to remove it. This was difficult without a screwdriver...the next day, I checked all manual cardox initiators and found that almost all of them had these construction plates attached."

He finally got the power on, but the Cardox system ended up driving smoke up into the control room above the cable spooling room. One person present described the scene in the control room as follows:

"The control room was filling with thick smoke and fumes. The shift engineer and others were choking and coughing on the smoke. It was obvious the control room would have to be evacuated in a very short time unless ventilation was provided."

After the carbon dioxide system was turned off, the smoke stopped pouring into the control room. It had not put out the fire in the spooling room, however. A safety officer fighting the fire pointed out:

"The CO2 in the spooling room may have slowed down the fire but did not put it out. We opened the door for air, as the smoke in the whole area had become dense and sickening. The reusable covers on the cables were burning, giving off dense black smoke and sickening fumes... it was impossible to not swallow some smoke. I got sick several times."

THE BROWNS FERRY INCIDENT

"Control board indicating lights were randomly glowing brightly, dimming, and going out; numerous alarms occurring; and smoke coming from beneath panel 9-2, which is the control panel for the emergency core cooling system (ECCS). The operator shut down equipment that he determined was not needed, only to have them restart again."

The flashing lights, alarms, smoke and continual restarting of ECCS pumps went on for a full ten minutes before the reactor operators began to wonder whether it might be prudent to shut down the reactors.

After the power level on the Unit 1 reactor began to drop inexplicably, the operator started to reduce the flow of the reactor's recirculation pumps, when the pumps suddenly quit at 12:51. He finally shut the reactor down by inserting the control rods.

Beginning at 12:55, the electrical supply was lost both to control and power the emergency core cooling system and other reactor shutdown equipment on Unit 1. The normal heat exchanger was lost; the high-pressure ECCS was lost; the reactor core isolation cooling system was lost and most of the instrumentation which tells the control room what is going on in the reactor was lost. According to the Unit 1 operator, "I checked and found that the only water supply to the reactor at this time was the control rod drive pump, so I increased its output to maximum."

Meanwhile, a few feet away on the Unit 2 side of the control room, warning lights had also been going off for some time. A shift engineer stated:

"Peev lights were changing color, going on and off. I noticed the annunciators on all four diesel generator control circuits showed ground alarms. I notified the shift engineer of this condition and said I didn't think they would start."

According to the official TVA report, "At 1:00 p.m. Unit 2 operator observed decreasing reactor power, many ozone alarms, and the loss of some indicating lights. The operator put the reactor in shutdown mode."

WARNING: URANIUM MINING IS HAZARDOUS TO YOUR HEALTH

Your government wants you to be aware of the dangers of smoking so it requires that a warning come with the product. Your government does not want you to be aware of the dangers of uranium mining. It's the government's product.

CHAIN REACTION NO. 1 1976
Inexpensive equipment also hampered the fire-fighting effort. For example, one assistant shift engineer said:

"I returned to the control room to direct the fire fighting efforts. A wheeled dry chemical extinguisher had been brought to the control room, but its nozzle was broken off at the battle."  

Normal shutdown was established on the Unit 1 reactor at 4:10 am the next morning, and the nighttime at Browns Ferry was over.

One of the electricians who started the fire said that candles had been used for more than two years, but said:

"I thought that everybody knew that the material we were using to seal air leaks in penetrations would burn... I never did like it."

On Unit 1, however, a new emergency developed. About 6:00 am, control and the last four relief valves were lost, and the reactor pressure increased to above 350 pounds per square inch, making it impossible for the make-up condensate booster pump system to inject water into the reactor.

The real irony of the Browns Ferry fire was that two days before, a similar fire had started but had been put out successfully. After the fire on Thursday night, the shift engineers and three assistant shift engineers met. According to one of them:

"We discussed among the group the procedure of using lighted candles to check for air leaks. Our conclusion was that the procedure should be stopped."

Yet nothing was done. The fire was noted in the plant log, and briefly discussed the next day at the plant management meeting. No one on the management level seemed to consider it a safety problem worth following up. This was the standard operating procedure.

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This article consists of extracts from an eight-page booklet published by FOE (USA). The original article, the David Cayley’s, is a leading nuclear critic in the US, after obtaining information from Browns Ferry employees soon after the fire, he made a legal request to the Nuclear Regulatory Commission for the utility’s report of the fire. He obtained this report, plus an inspection report from the Atlanta office of the NRC.

The extracts printed above are based on these reports. The full 8-page document is available from FOE upon request.

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The 12" wagon, donated by Michael Bell, was originally a flat bed farm trailer to which walls and a roof have been added. The exterior wall is coated by a mastic of Kokoda Park painted by Jack and painted the question, "Alligator Farm - Region-wide heritage national park or uranium province?" (see pic 1)

The opposite side is fitted with an awning which opens to reveal the interior display (see pic 2). The display depicts each stage of the nuclear fuel cycle and its hazards. Pictures from Rumi Jungle, cartoons, and graphics add interest and the display ends with a anti-nuclear petition that the public can sign.

Also included in a world map showing the current status of the Nuclear Non-proliferation Treaty and a video tape system. The latter is to be converted to a 12" system so external power can be dispersed with, and, with a bit of skill, this system can be recharged using wind energy. (A bicycle windmill is now operating on top of the tan - wagon - ed.)

In stating the case against nuclear power, it is necessary to show alternative power sources. This is because the most often asked question by those viewing the display is, "but what’s the alternative?" To answer this in part, we have a solar cooker display and several diagrams of a wind energy source proposed by Sydney Inverno, Dan Mylne, in addition several students from Stanford Technical College have expressed an interest in exhibiting their solar cookers in conjunction with our display.

For those who want more information about alternative energy, we keep a folder on the latest information in this field with the wagon. This, plus a stock of FOE and ACF publications, makes the "Ban Wagon" an energy information source on wheels.

Since its completion in late November, the wagon has been to Paddington Town Hall, local schools, a shopping centre, and other prominent spots. It has led to many useful contacts with interested people, has increased FOE’s membership, and led to a $100 dollar donation. Judging from the response, taking the environment to the people has been a great success.

Herb Fenn  
FOE, Sydney

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SOLAR CELLS

Solar One house at the University of Delaware 'harvests' sunlight into both heat and electricity, the house will obtain 80 per cent of its energy needs from the sun. The 45 degrees roof has 24 solar-collector panels; six additional panels are on the south wall. Three roof panels are covered with cadmium-sulfide (CdS) solar cells. A small proportion of sunlight striking the cells is converted into DC electricity, charging an 18-kw-hr battery system for lighting and resistive-type appliances.

RIDE AGAINST URBANUM

"Under no circumstances would I act to establish an atomic reactor plant in Australia when the state of atomic technology has no answer to the radioactive wastes from spent reactor fuels," Mr. R.F.X. Connor (June 4, 1974) was reason enough for 250 bike riders from Sydney, Melbourne, Adelaide and Canberra, to ride on Parliament House, Canberra, last year. (See Chain Reaction, Sept, 1975, Vol. 1, No. 3.)

The Federal Government's policy on uranium mining this year is at least as bad as that of last year's government. Under the Fraser government Mr. Anthony, the present Minister for Minerals and Energy, is moving to satisfy mining and export contracts with foreign companies, whilst dropping government controls and attempting to avoid government responsibility in the matter.

The "Caper" inquiry, commissioned by the former Labour Government to assess the impact to the environment of uranium mining, is expected to present its report to the cabinet around July/August.

WHOSE DECISION?

No matter what the Inquiry reports, the "national interest" escape clause of the Environmental Impact of Proposals Act can be used by the Fraser Government to override the Inquiry's recommendations. The final decision should be made with the understanding and active participation of the whole Australian population.

In order to cast light upon the serious nature of such decision making, bicycle riders from Sydney, Melbourne and Brisbane will be riding on Canberra in a national protest against uranium mining during the May school holidays this year. Anyone with a bike can take part by riding all or some of the way (joining us anywhere along the route by train or private car) or just by making it to Canberra for May 15.

The Bike Riders will be setting up camp on the lawns opposite Parliament and displays, stalls and demonstrations of alternative energies are planned; any contributions to these displays will be really helpful. Of course, the bicycle themselves will provide the main demonstration — a rolling theatre on wheels, a "human event" worthy of national press coverage, and for those participating, a reaffirmation of the potential inherent in human beings to provide for themselves in this technological age.

Last year's bike ride was a great success. Our demonstration drew a great deal of media coverage, both on a national scale and in the towns through which we passed. The attention of the Australian public was drawn to the issue of Uranium mining, and riders were generally met with sympathy for our cause and respect for our efforts.

The Ride, as a physical endeavour, at least from Melbourne and Sydney, will present no great obstacle to the determined healthy person. If you have the use of a geared bicycle and can gain a little practice between now and May, you should easily accomplish the few hours each day which we will spend pedalling down the road. People found that any soreness vanished by the third day last year, and when we arrived in Canberra, everyone was much fitter, a bonus for the holidays!

We hope that May 1976 will see many more people coming together to provide the vital human energy needed to move on Carnegie en masse. We are certain the '76 ride will prove to be a great experience and a most worthwhile way to spend the holidays. See you in Canberra in May!
**BIKERIDE DETAILS**

**MELBOURNE**

Melbourne riders will be rallying in the City Square on May 8 at 10am for a demonstration and concert.

Vehicles will be accompanying the Ride, carrying all baggage, food and equipment. Tired riders will be able to rest in a bus, and bike repairs can be carried out on the roadside.

There is a rest day in Albury to allow the inexperienced riders a chance to recuperate. Also, we have adequate time each evening for alternative activities.

The people interested can join in meeting with the local police, as we pass through townships along the way to discuss uranium, nuclear power and the environment.

The Hume Highway between Albury and Yass is to be avoided due to its dangerous and hilly sections. Instead, we will travel on pleasant back roads until we reach Yass.

The Ride will be close to the railway line all the way to Yass, to facilitate transport to and fro for people joining the Ride for a few days only, or over the weekend. Group bookings for riders and their bikes will be arranged for the return from Canberra, by train via Queanbeyan, on May 19.

**SYDNEY**

Bicycle riders from Sydney will be leaving on May 8th from Circular Quay at 11am.

We will be travelling via the nuclear reactor belonging to the Australian Atomic Energy Commission at Lucas Heights. There will be a vigil held there for one day.

Three extra days have been set aside for rest days to that inexperienced bike riders will have no trouble covering the distance.

For more details, please contact:

Sydney FOE at,
CJ: 26/3 Broadway
Broadway, 2000
Phone: 660 0227

**SPONSORSHIP FORM**

**NAME:**

**ADDRESS:**

**POSTCODE:**

**PHONE:**

**HAVE BICYCLE?**

**CAN YOU HELP WITH THE ORGANISATION?**

**COOKING? VEHICLES?**

Please fill in the above form and send it to the F.O.E. office in your state. More information will be sent to you. It is anticipated that a food charge of $2.50 per day will be necessary, with communal cooking.

Accommodation will be in local church or community halls, or tents, depending on the locals.

Vehicles will accompany the Riders, carrying baggage, food and equipment.

All contributions by sponsors are tax deductible if made out to the AUSTRALIAN CONSERVATION FOUNDATION, specifying that you are making a donation to F.O.E.'s Uranium Defence Fund.

**ENTRY FORM**

**TOWN** | **DATE — MAY** | Miles/Km
--- | --- | ---
Melbourne | Sat. 8th | 69km (37 miles)
Kilmore | Sun. 9th | 38km (24 miles)
Sequoi | Mon. 10th | 97km (64 miles)
Tennal | Tues. 11th | 40km (25 miles)
Wangaratta | Wed. 12th | 72km (44 miles)
Albury | Thurs. 13th | 53km (32 miles)
Rest Day | Fri. 14th |
Culcairn | Sat. 15th | 80km (50 miles)
Waanda | Sun. 16th | 93km (58 miles)
Coolamon | Mon. 17th | 107km (66 miles)
Yass | Tues. 18th | 61km (38 miles)
Canberra | Wed. 19th |

**TOWN** | **DATE — MAY** | Miles/Km
--- | --- | ---
Circular Quay | 11 a.m. | Sat 8 May
Lucas Heights | Vigil for one day | Sun 9
Lucas Heights | 10 a.m. | Mon 10
Wollongong | Rest day | Tues 11
Wollongong | 10 a.m. | Wed 12
Moss Vale | Rest day | Thurs 13
Moss Vale | 10 a.m. | Fri 14
Goulburn | 1 p.m. | Sat 15
Ginnindarama | 12 Noon | Sun 16
Yass | Rest | Mon 17
Yass | 9 a.m. | Tue 18
Canberra | Protest | Wed 19

"I'm so omnidirectional - anything you want to name that's worth concerning. I'm in it."

The Chain Reaction room could not be more than 8' by 10'. The back wall is even now peering at me over my shoulder. The layout table is scattered with cups and copy, clothes and pencils. The air is filled with that burnt out feeling from late nights and soyva coffee... the scene is jolteon momentarily with the thought of our impending copy deadline.

Earlier today the noise of the Saturday move to the new office drowned out the sound of the next room.

On an air mattress under the layout table I slept fitfully. Disoriented occasionally by someone working above. Gently nudged I peered into the early evening.

"Have you got that Milligan interview?"

"Oh... an interview?"

"More minutes later we were sitting in a dingy back room stage of the Comedy Theatre, lavishly furnished in Victorian. A red plastic fire bucket set on the white lime floor near the fridge. A mirror and basis adorned the wall. We were waiting for Milligan."

He entered quietly...

"It's so difficult to take a tight at an individual because you are fighting mammoth organizations and mammoth inertia and mammoth indifference. If there were five people on an island and I was one percent of them I would be able to exert a tremendous control over the other four. But I cannot move one of 25 lots. London's 25 million, that's not a city, it's four or five nations, it's a hundred thousand tribes in terms of numbers. It's outside the normal orbit. I mean even Plato (who was a philosopher rather than a statistician) said that the ideal city state would be 25000 people. That's gone by the board now. Numbers are a destructor... numbers... numbers... numbers..."

"Wes live on a finite globe and we are becoming infinite. The globe will not take it all the time. There's no stopping us, there's no plan to stop the overwhelming small groups here and there, chaos making up statistics, government statistics. When I investigate government statistics, it's all crap..."
"Communications became more complex as more people became involved. I mean, the more people you have, the more complex it is to deal with them. We can be pushed into taking trains like sardines, with your leg on your face and you don't say a word... nothing. You just look at the ad for two days, then you look at the train and all that... that they bang into each other in the street non-stop."

"People can gradually get indoctrinated. Children being born into small rooms believe that's the size of the room. So it's possible for the big boss, the firm, to keep pumping as much as they like into the system, keep changing the pattern and people accept it because people are easily managed. But bit by bit it's eating the place that they live in, their quality of living and it depends on how long they can stand it before they start tearing each other to pieces... like when your experiment with mice in a cage."

"They're not going to disappear though, they're going to take us with them. We've locked us in the firm. I tried to stop buying ICI products but there's so many that it would take me a whole day with a lot of time to stand in front of a line of beans to find out that their brand name is one of ICI's products."

"If you're going to survive under the firm then you have to buy their products and you need bread to buy their products. If you want to get out of it you really have to go for art and this means that you have to cut yourself off completely. So I go along with the firm, I buy their products but I disagree with them. I'd like to change it. I try to fight it, but it's very, very hard. I get very depressed about the whole thing. I get dark glasses. But I'd rather wear black glasses than empty, hollow laughter over a glass of beer."

"America is just the name of the firm, not the nation."

"THE AURUKUN BAUXITE SWindle"

The east side of Cape York Peninsula contains some of the largest deposits of high-grade bauxite in the World. Since early this century the area has also been a reserve "for the benefit of the Aboriginal inhabitants of the state."

A LITTLE HISTORY

The European invaders of Australia came late to Cape York Peninsula. About 90 years ago the missionaries came to Mapoon, then to Weipa, further north, and then to Aurukun, further south again. The missionaries encouraged the local Aboriginal people to settle and then act under the system and receive Queensland Law, proceeded fairly systematically to try to destroy their culture and independence.

The missions were fairly isolated. Though under white law none of the Cape York Land was owned by the Aboriginal people, it was at least reserved for them and there use (subject to the powers of the white mission staff and government administration).

This wasn't to remain the case. As elsewhere in Australia the land was transferred and the land remained reserved for Aboriginal Inhabitants only as long as the white invaders didn't want it. In the 1950's Cape York became desirable because of the discovery of bauxite. The Aboriginals stood in the way.

Shifting them was not easy. Comato and Alcan were granted huge mining leases and acting together with a reluctant church and an enthusiastic Queensland government, mounted a campaign of persuasion, harassment and force to move the people. At Mapoon the community resisted several proposed moves; however, in 1963 the remaining families were removed at gunpoint by police. Many were shifted to Weipa South, where the Weipa Aboriginal people now live in a tiny reserve of three hundred and eight acres.

Neither the Mapoon nor the Weipa people received any compensation for their land.

THE AURUKUN MOVES

Although the land around Aurukun has been under prospecting leases since before 1950, mining has always appeared to be a long way off. At the Presbyterian mission settlement, there is a very strong community of some 700 people. It has a living and independent culture - the people speak their own language, keep their own laws, know their own land and story places, fish and hunt and gather food as they need it.

On 21st November - ten days after the Fraser "compromise" government was appointed - it was announced that a mining lease would be granted for the land around Aurukun. The legislation was rushed through State Parliament in early December.

The Aurukun people were taken completely by surprise. The decision to grant the lease was a well-kept secret: the church authorities, and the Aboriginal government officials were also in the dark. The move was a clear piece of cynical opportunism, designed to avoid public criticism of the proposal.
OPPOSITION TO MINING

Opposition has come on three grounds: the loss of ownership of the consortium which plans to mine, the emotional and impact, and the moral imperative of the attempt at steel Aboriginal land.

(1) The consortium is:

Billiton (46%) - a subsidiary of Royal Dutch Shell [the largest non-US multi-national],

Pechiney (19%) - the target of the European aluminium giant,

Tippary (44%) - a US oil and cattle company, with large pastoral leases in Australia.

It is 100% foreign-owned. This cuts right across the ALP minerals and energy policy of 95% Australian equity in new projects. The UNCP, similar in policy, is beginning to show us as rather different.

(2) Bauxite mining is strip mining, with vast areas of land devastated. Although experiments in reforestation are being carried out, there has so far been little success. And reforestation will not replace the rich vegetable and wildlife - if anything, the trees planted will be used for mining.

After the bauxite is mined, it is refined to aluminium. Such refining generates vast quantities of red mud, a highly alkaline waste. Nabalato's operations on the Gove Peninsula, for example, led to fish poisonings. An aluminium refinery is planned for Aurukun land.

The final step is the electrolytic smelting of the alumina to aluminium - again generally a polluting activity especially because of fluoride emissions, and one requiring vast quantities of electric power. It is possible a smelter will be built on Cape York.

(3) The rights of the Aurukun people have been trampled on. The Queensland Government will force actions can only be said to be more deceitful than usual - bar made much play of the "profit-sharing scheme" between the companies and the Aboriginals. In fact the provision is almost nothing: 3% of the net profit from the tailings (the profits that flow elsewhere into the Aboriginal Welfare Fund mandated by the Queensland Government.

The Aboriginal community throughout Australia has been active in opposing the mining. Other groups have come out against the mining scheme going ahead. The Aurukun church in the Prudabury church, the Australian Christian Layman's Church has a recent Quaker conference.

Friends of the Earth and the Australian Union of Students.

But most important has been the action taken by the Aurukun people themselves. Their statements issued each week clearly indicate the opposition to the mining. To show their strength and determination they have closed the mining camp and airstrip built by the companies and the state government to respect the wishes of the people.

They know what the effects of bauxite mining are, and what a refinery would mean. They need support in stopping the mining, in forcing the companies and the state government to respect the wishes of the people.

There are land rights committees in many areas, working to support the Aurukun people, as a clear example of the land for rights.

Perth 176 Wellington St,

Calma 27 Keim St,

Darwin G.232 Larrakia

Perth 225 Collingwood St,

Cairns 277 Keim St,

QPC Box 4751, Darwin

Sydney 142 Regent St, Reid,

Adelaide 126 Wakefield St, Adelaide.

We do not want mining on any land, anywhere, if not, we will campaign against it.

EXHIBITION OF APPROPRIATE TECHNOLOGY

Appropriate technology groups from all parts of the world are being invited to participate in an exhibition to be held in conjunction with the HABITAT FORUM.

Exhibits are to be equipment or working models that clearly demonstrate the success of small technology in solving problems identified by local committees.

Groups wishing to enter displays should submit as soon as possible.

Coordinator: William N. Ellis

"If people want to turn on the lights, they are going to have to expect to lose a reactor now and then ... Safety Engineer, National Reactor Testing Station, Idaho, U.S.A.

FILMS AVAILABLE

Friends of the Earth have speakers and 4 films available upon request. The films (16mm) are:


(2) "The Bodily Effects of the Nagasaki - Hiroshima explosions."


**"Amuraka"** - a recently acquired film (see news section).

**"Lovely"** is the story of how much you can afford. **"Lovely"** is 500 or whatever you can afford!

**CHAIR REACTION NO. 1 1976**
POSITION VACANT: CALICO

Information officer, central american land information communication office, (radio), campo cornejo. The current trend is toward an emphasis on “soft technology” manuals that are regional (000 square kilometers in scope, research, documentation and training that may lead to extension or alphanumeric style files that give a look at a publications program through 79/81, or about that time.

Energy is available to build an adequate building, it should be together May to August 1976.

In the short term the community can provide “equity in misfortune” in the economic field. An adequate living. The applicant will have to present economic self-sufficiency through gardening, production of staple food crops, etc. is expected to settle down as to provide a measure of security as to the above.

An unusual opportunity to “get in on the ground floor” in a freeheeling venture that is unlimited in scope, personal scale, and is based in a stimulating wilderness environment.

Good one for a team or 2 or people who already have some ideas to try out, and a good learning space for a dupe.

Applications should be addressed to:

CALICO
C/O N.T., Environment Centre, P.O. Box 720
Darwin, N.T.

HANDCRAFTED DULCIMERS – FOR SALE!

The Dulcimer is a plucked instrument in the zither family. Its present form is derived from a medieval Scandinavian instrument the Lyngflute. It has been played in the Appalachian mountains in Kentucky since the very early days of European settlement. In recent years, it has experienced a new wave of popularity in western countries.

Unlike the guitar, which is fretted chromatically, the dulcimer is fretted in the centuries old modal form. It can be used to play a wide variety of music, equally it can be played with a variety of other instruments including the guitar, harp and flute. It is one of the oldest instruments to play, especially in a free-form way.

FOE Melbourne has recently arranged with Morgan Mackay, a well-known maker of handicraft dulcimers, that FOE acts as a outlet for his wares. We are doing this primarily to improve our finances - but we are sure that its the type of product for which folk calls the convivial society.

The price is $50.00. (Buyers from other capitals must add on an allowance for packaging and freight: Sydney $5; Adelaide $4.50; Brisbane $5.50 and Perth $5.20).

EARTH'S WILD PLACES

MICRONESIA: Island Wilderness


To Walter Hickey’s plea for Micronesia, Henry Kisinger replied: “There would be 100,000 people here if we gave a damn.”

There are now 110,000 people living on 9 of the 202 islands of Micronesia who give a damn. Their total area is less than that of Rhode Island covered over a vast three million square miles of Pacific. Some islands can sustain only a single family, or an occasional copra harvesting party. The rest of the islands are wilderness. With few exceptions, even the inhabited islands are wild, for the traditional life is not the kind that makes land tame.

Kisinger’s words today: “It has been decided, apparently, that the salvation of mankind is no account and the island cultures that passed on, through all these successive generations, the living reeds and their various and varied fishers, and the green, beyond jungles, and the trails between beaches patiently in the sun, must now give way to a civilization. In the West, we can’t see a thing on instinct, and has never learned to live harmoniously with anything.”

The hilltop for the place. It for people, and for the kind of help they and don’t need, Robert Workman and Kenneth Brower have collaborated for the third time, and have done so magnificently.

Micronesians cannot defend themselves against the great powers who now seek to make the island of Micronesia something else and something less. It is the powers themselves who must learn what the unique island beauty meant to the eye and ear, and to the conscience.

This book tries to give them that chance. May it succeed?

160 pages, $26.95 (in colour) $21.00 (in black and white).

GUALE, the Golden Coast of Georgia


Cumberland Island is one of the well-known islands of Georgia’s golden coast. Writings about the development-versus-park battle for Cumberland Island, in Encounter with the Archipelago, John McPhee said: “... there could be human winners here or there, but nothing more happen, there could be a heaven left out here. No one will ever sit as free on that wild beach in the future as we had been that day.”

To try to give such change, we publish Guale, the Golden Coast of Georgia. The region belongs in the World Heritage. Russell Train’s contribution for protecting genetic resources of importance to the world as a whole, such as the Grand Canyon, the rain-woods, and the Serengeti - and cultures, monuments, and ecological uniqueness.

In what is certainly one of the most beautiful of books about books, the photographs, authors, and editors have joined to let the world know the place of these, unlike in all the world. The making of a new understanding of the living landscape. They put us there, and celebrate its beauty.

144 pages, 64 pages and in colour, $37.00 (members $22.00).

EYKRI, The Mountains of Longing

By Ania Bickel. With photographs by Philip Evans

At the outset we are informed in this most elegant plan. It is a spectacular appeal to the senses through the superb colour plates of Snowdonia, largely but not exclusively the work of Philip Evans, accompanied by quotations and verse - but all the photographs have a very small nation of the Park’s beauty - but they do it convincingly.

The second paragraph is a most cogent appeal to reason, the writing throughout this and to the point. It entreats and convives; it entices and compels; it annoys and provokes, it bears all the signs of careful research. In a very few pages, Lovins summarizes the special appeal and characteristics of Snowdonia, what National Parks ought to mean, why this particular one has failed.

178 pages, 64 in color, $37.00 (members $22.00).

EARTH AND THE GREAT WEATHER:
The Brooks Range
By Kenneth Brower.

The Brooks Range is the northernmost mountain range in the United States, and the North Slope is the northernmost plains. These ultimate provinces are the last great wilderness in the nation, a wilderness of endless distances and infinite detail. “Kenneth Brower describes vividly his summer explorations of the fantastical, otherworldly Brooks Range where all today poses the threat of ecological disaster. Texts and photographs (64 plates in full color of superior fidelity) are studiously orchestrated, with occasional marginal drawings, a relevant map or two, endpapers and very striking jackets.

Published Weekly

160 pages, 64 in color, $29.00 (members $24.00).

MAUI: The Last Hawaiian Place

By Robert Workman. Edited, with an introduction by Charles Lindbergh, with a foreword by Kenneth Brower.

A counterpoint of photographs and words portraying the last refuge of

SYDNEY
Cl: N.S.W. Environment Centre, 2263 The Embassy, Carlton, Victoria 3053
BROADWAY N.S.W. Telephone 02/347-6680

P.O. Box 1833
Cairns City, A.C.T. 2601

P.O. Box 3905
Auckland West

MELBOURNE
15 Nicholson St., Carlton, Victoria 3053

AUCKLAND P.O. Box 720

DAINTREE
P.O. Box 210
Darwin, N.T.

Brisbane City, Qld

CAIRNS
P.O. Box 31
Townsville, Qld.

NEW ZEALAND
P.O. Box 26
Warrington, 2062

SOUTH AFRICA

Darwin P.O. Box 210
Darwin, N.T.

DAINTREE
P.O. Box 594

THE EARTH AND WHY IT NEEDS YOU FOR A FRIEND

Simply fill out this form and send it to your local FOE group

In order to join membership fee of $10.00 OR ANY SUM THAT I CAN AFFORD...

NAME...

ADDRESS...

TELEPHONE...

FOE CHAIN REACTION NO. 1 1976

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Hawaiian wilderness and tradition, and for the people there, now and long ago. The old Hana district, a country of contrasts, includes the crater of Haleakala, with its desert lava slopes and cinder cones, and precipices spirally down 10,000 feet through the nearly impermeable and largely untroubled valley of Kipahulu and Keanae, with their ferns, jungle birds, great stands of koa and ohia, and almost perpetual rain, to end in pastures and a wild fence coast. Robert Vinten’s superb photographs bring all this splendor to you and, with Kenneth Brower’s “Kipahulu Sketches” they build a compelling case of letting the beauty and integrity of the place live on.

160 pages, in color. $27.00 (members $22.00)

RETURN TO THE ALPS
By Graham Sewell
Photographs by Gerhard Klimmer
The last islands of wilderness in the Alps are going rapidly. Mr. Knight’s perspective of his hills of home is a very personal story. His alp are also the gentler Alps and for that reason the more easily lost. Gerhard Klimmer has searched out the same kind of moodful beauty. Selections have been included from a wide variety of Alpine literature to explore what the Alps have meant to many men, and what we have brought there to make them increasingly beautiful playgrounds. More emphasis was placed on what was brought and less on what was there to begin with. This book represents the quintessential Alps.

160 pages, in color. $27.00 (members $22.00)

THE PRIMAL ALLIANCE
Earth and Ocean
Photographs by Richard Kaufman
Selections from John Hay by Kenneth Brower

The primal alliance between earth and ocean has worked well and long. John Hay and Richard Kaufman looked to different coasts and inquired into the forces of creation so beautifully manifested there. Where the shallow and salt winds are, where the land and the sea must influence each other, they watched the most important events. The sea breathing life into the land, the land nourishing the sea in return. Kenneth Brower has drawn upon his own still different art, finding meaning, significance, and picture.

144 pages, in color. $27.00 (members $22.00)

SONG OF THE EARTH SPIRIT
By Suzanne Anderson
Patient and gracious in her concern for a Navajo family and their close friends, Suzanne Anderson in photographs and words brings a new perspective of culture hard to know. She expects us to understand very well who the Navajos are: “The mystery will survive my curiosity,” she writes, “just as it has the inquiries of many others, even Navajos, who set out to understand an entire people.”

Yet she records expressively the contrast of cultures in a land still remote from much of modern America, with poor roads and barrenly electricity, where many families speak to English. To her own ability to get in touch with navorever, she had added poems and conversations of Navajo her and lived with near Black Mesa, a sacred mountain in the Navajo religion.

136 pages, in color. $19.50 (members $15.50 and $5.50)

PUBLICATIONS FROM FEO: ENERGY:
1) WORLD ENERGY STRATEGIES: FACTS ISSUES AND OPTIONS by Amory Lovins, Foreword by Johannes Alten

For those seeking responsible energy decisions around the world, and uncertain which experts and which numbers to trust, a careful assessment of the costs and benefits of existing energy resources. Lovins suggests where the merits lie in technical disputes and shows what energy options exist for the long term and what short-term actions must be avoided if we are to preserve those options. Co-published with Ballinger, 320 pages plus 60 color pages. (Price to FEO members $3.50 plus 60 cents postage.)

2) NON NUCLEAR FUTURES: THE CASE FOR AN ETHICAL ENERGY STRATEGY, by Amory Lovins and John Price. The authors describe some economic and ethical matters that should no longer escape our attention. The book enables intelligent, concerned people to correct the executive’s failure to take their comments. In different ways, the authors explain the inestimable amount of capital needed for the nuclear dream, unattainable or so to be ridiculous, yet sought nonetheless because advocates have not bothered to do the sums carefully enough. (Co-published with Ballinger Publishing Company.) 224 pages, paper $9.00 plus 60 cents postage. (Price to FEO members $4.00 plus 60 cents postage)

3) RADIOACTIVE POLLUTION OF THE ENVIRONMENT BY THE NUCLEAR FUEL CYCLE. By John F. Holdren.

The 10-page revised edition of “The Holdren Papers”–the nuclear fuel cycle is precisely explained, with particular emphasis on the hazards associated with each stage in the operation of the nuclear power industry, 20 cents plus 18 cents postage.

4) FRI ALERT

The story of the yach FRI, as told by it’s crew, during the nuclear protest voyage to Mururoa Atoll in 1972. The return of the FRI by the French Navy is strangely illustrated. As is the rest of this book. 138 pages seven paperback $5.95 (includes postage).

5) GIVE ME WATER

Stories and pictures of Hiroshima and Nagasaki after the holocaust, 60 pages paperback 60 cents plus 18 cents postage.

6) KOGO NEWSLETTER FROM POLLEN JAPAN

Produced by the Jahu/Koiz action movement, this magazine is an excellent summary of pollution in Japan. First issue since 1972-1974. Subscription $2.00 a year, includes postage.

7) NON NUCLEAR FUTURES By Amory Lovins

This pamphlet is an excellent summary of Lovins’ book. It is a reprint from a Non Man Aprt 8 page centrepiece, August 1975. 60 cents plus 18 cents postage.

8) THE INCIDENT AT BROWNS FERRY, By David Conley

Reprint of Artf Man Aprt 8 page account of the workers’ incident 1975. The reactor came very close to a core meltdown. 20 cents plus 18 cents postage.

9) FORESTRY MASSACRE 1.

This FEO tabloid gives a national overview of the ecologically disastrous woodcutting. In 132 pages, 84 plus 60 color pages. (Price to FEO members $3.50 plus 60 cents postage)

10) RUSH TO DESTRUCTION, By Graham Sewell. An appraisal by FEO New Zealand of the roap in the Beech Forests of that country. Seven pamphlets, 218 pages with photographs. $4.25 or $3.75 to FEO members 60 cents postage.

11) INSIDE MICROCONA – WHO GIVES A DAM!

A reprint of an NAM pamphlet, this is a review of the new book in the Earth’s Altitude series, entitled Microconas – Island in the Baltic. The U.S. is trying to annex the North Islands for Military Bases – and will possibly destroy the Micronesian people in the process. 20 cents plus 18 cents postage.

12) IS RECYCLING THE SOLUTION? byIan Pausacker. This newsletter includes the most comprehensive and up-to-date book available on the packaging and recycling ripoff in Australia. Full of facts, stories and graphs. Available from FEO at the special price of $1.20 postage included. 93 pages.

13) FOOD

An annotated and ideas booklet put out recently by the RMF Food Co-op. Sections on Growing Your Own: Why Chlore Doesn’t Stain – Greenhouse Germs – Feeds the Hungry Poor – Eat to Eat – Contrasting Vics. In addition, FEO offers you a pocket Booklet Without Eliminating Humans – Recipes – Herb Guide etc. etc. 20 cents each or 50 cents parcel. 40 44 pages.

14) THE INCREDIBLE ROCKY

The Australian reprint of a U.S. comic book describing the amazing adventures of the Rocke7er Family and the operations of multi-national in general. 76 pages. 75 cents plus 30 cents postage.

BACK COPIES OF CHAIN REACTION:
Number 2, Summer 1974
Number 3, Winter 1975
Beke To Canberra – Nuclear Power and the Third World – FEO Goes to Darwin – Canberr. Smog City – Greenpeace Serves Whales – Concord etc. 50 cents including postage.
Number 4, Summer 1975/76
South Africa and Uranium – Japan’s Uranium Follies – Ranger Uranium: the Nuclear Industry in Australian Whales – Special issue on Alternatives to Nuclear Power – plus overview Solar/Wind/Hydro/Geothermal etc. 75 cents including postage.

NEW PUBLICATIONS FROM FEO:
(i) THE TRUE DEATH OF KAREN SARK-WOOD

Karen Kohn’s chilling account of the depths of the women who attempted to disprove some deceptive practices of the Kerr-McGee nuclear corporation. This article originally appeared in Rolling Stone and is reprinted here in a 10-page booklet, 20 cents plus 18 cents postage.

(ii) FEO’S URANIUM STUDY

With the aid of a Federal (Labor) Government Grant FEO has over the past six months undertaken an extensive study of the social, political and public implications of uranium mining and nuclear power. This study is the basis for FEO’s (Labor’s) stance to the forthcoming Senate Enquiry which should begin hearing evidence in Melbourne in March this year. To be published by the end of March see order form.

(iii) TOTEM AND ORE

By Steven Buech, an anthropologist who has lived with a number of Aboriginal tribes in North Australia. This manuscript is a disturbing critique of the Governments and mining companies in their operations in Northern Australia – raping the land and decimating the peoples in order to reap profits for foreign companies and payoffs for a small local elite. With particular reference to Yirrkala (Gove Peninsula) with its Beaucro, and Dempel with its Uranium, this book gives an indissoluble argument for immediate and total Land Rights for Aboriginal Basic and a basic restructuring of the mining industry. About 150 pages, including about 60 black and white photographs – see order form.

(iv) URANIUM INFORMATION KIT FOR SCHOOL KIDS

A composition of booklets, leaflets, articles and tabsheets published in Australia and around the world as part of the campaign to stop nuclear power. Includes: NOBODY NEEDS URANIUM, TABLED – THE INCIDENT AT BROWNS FERRY – HOLDRIN’S PAPER – NON NUCLEAR FUTURES – THE ALTERNATIVES TO NUCLEAR POWER – AN INTERLUDE ON WHALES PLUS A GENERAL OVERVIEW, QUESTIONS AND ANSWERS, PLUS MORE. Order form available by March 1976, $1.50 or $1.80 paid, 10 copies or more – $1.20 each, $1.50 paid.