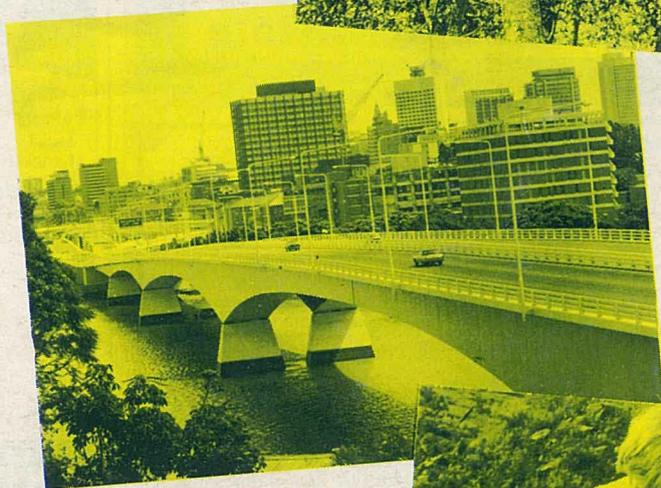
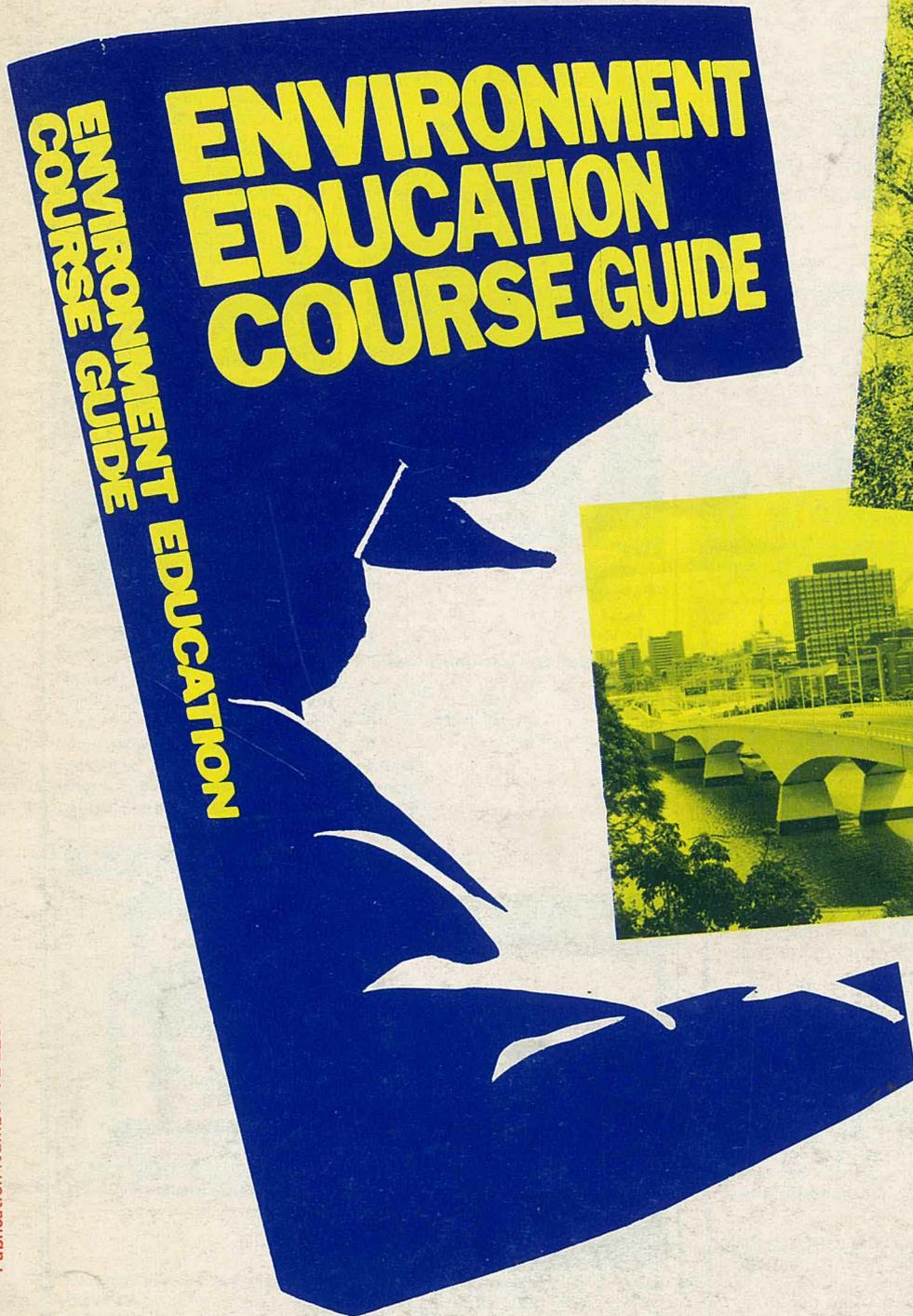


Chain Reaction

Friends of the Earth Australia

Number 33 August-September 1983 \$2.00



Registered by Australia Post
Publication Number VBQ2034

• AUSTRALIA'S DEFENCE • WEST GERMANY'S GREENS •

WANT TO STUDY THE ENVIRONMENT?

Tasmania offers special opportunities in this field.

The University of Tasmania offers a two-year postgraduate degree for Master of Environmental Studies by course-work or research, and Doctor of Philosophy by research.

for information write to Dr R. Jones, Centre for Environmental Studies, University of Tasmania, GPO Box 252C, Hobart 7001

Tasmania

the environment state

FACULTY OF RESOURCE MANAGEMENT THE UNIVERSITY OF NEW ENGLAND ARMIDALE, NSW

Located in rural New England with a unique 2000 ha outdoor natural resource field laboratory only 10 km from the campus.

NATURAL RESOURCES

The BACHELOR OF NATURAL RESOURCES degree is a four-year program providing training for careers in soil conservation, water resources management, land use planning and management, environmental management, national park planning and management, wildlife management and resource engineering. There is a full time one-year DIPLOMA OF NATURAL RESOURCES program which can also be taken on an external or part time basis.

URBAN AND REGIONAL PLANNING

The BACHELOR OF URBAN AND REGIONAL PLANNING degree is a four-year full time program providing training in urban and rural land use allocation decision making at local and state government levels. The degree, which can also be taken externally, is recognised by the Royal Australian Planning Institute.

There is also a DIPLOMA OF URBAN AND REGIONAL PLANNING program available both to internal and external students.

For further information contact the Dean, Faculty of Resource Management, University of New England, Armidale, NSW 2351. Telephone (067) 73 2804 direct line.

BACK COPIES

Twenty-seven back copies of *Chain Reaction* — all those published from autumn 1976 (except vol 2 no 3, of which we will supply a reprint of the major stories) — are available as a set for \$37. Add another \$2 to include this edition (no 33). Single copies or class sets of particular editions are also available. All post free.

Spring 1982, no 29 — Women and the resources boom; Threats to Antarctica; USA's Pacific military network; Trade union and ALP uranium policy. \$2.00.



Summer 1982-83, no 30 — Jobs and hydro dams, Shell in Australia, Sydney's toxic wastes, Fighting for work in Newcastle, Nuclear war. \$2.00.



Autumn 1983, no 31 — New communications technology, Breast milk contamination, NSW rainforest, Repetition' injuries. \$2.00.



June-July 1983, no 32 — NSW land rights, Aboriginal housing in Victoria, Shell's move into coal, Community child care, Activist Contacts directory. \$2.00.



Send orders to: *Chain Reaction* Room 14, Floor 4, 37 Swanston St, Melbourne 3000.

Chain Reaction

Established in 1975

Number 33
August-September 1983

Publisher
Friends of the Earth Australia

Editorial Collective
Sharon Callahan, Mark Cole, Tim Darling, Peter Ellieffe, Eileen Goodfield, Jonathan Goodfield, Peter Gravier, Pauline Kennedy, Wieslaw Lichacz, Trish Luker, Judy McDougall, Susan Mueller, Rosemary Nichols, Jenny Quealy, Keith Redgen, Bess Secomb, Linnell Secomb, Richard Shelton, Jill Taylor.

Production
Marie Cohn, Lyn Deasey, Ruth Ford, Lyndon Fraser, Elizabeth Goodfield, Mary Goodfield, John Hallam, Roger Halley, Christina Kolasta, Kim Lewis, Alex Megroz, Judy Spokes, Aarn Whitehouse.

Advertising
Jonathan Goodfield Tel: (03) 635995 for rates and bookings

Distribution
Richard Shelton

Subscriptions
Bess Secomb

Accountant
Eileen Goodfield

Reviews
Trish Luker (Sydney), Keith Redgen (Melbourne)

Earth News
Judy McDougall
Jenny Quealy (Sydney)

Coordinators
Jonathan Goodfield, Susan Mueller, Richard Shelton

Sydney Collective
Floor 2, 787 George Street, Sydney, NSW 2000, Tel: (02) 211 3953

Reprographics
Melbourne Media Services

Typesetters
Correctline Graphics
Courier Typesetters,
Kasia Graphics

Printing
Waterwheel Press, High St., Shepparton, Vic 3630

All correspondence and enquiries

Chain Reaction, Room 14, Floor 4, 37 Swanston St, Melbourne, Vic 3000, Tel: (03) 635995, Telex: WILSOC 35576

CONTENTS

DEFENDING THE SUNBURNT COUNTRY

By Mark D Hayes



Australia's defence past, present and future. A look at a range of alternatives to our current defence alliance which implicates us in the USA's nuclear madness. And a call to the peace movement to seriously discuss alternative defence and to prepare for nuclear war.

11

ROXBY DOWNS BLOCKADE

By Christina Shepherd
Roxby Downs — the uranium mine you have when you're not having a uranium mine. A concise look at the many issues involved, and the planned protest at the mine site.

18

ENVIRONMENT EDUCATION COURSE GUIDE

So you want to learn about the environment. *Chain Reaction* brings you a listing of tertiary environment education courses, along with comments and student criticisms.

20

ENERGY POLICY WITHOUT POWER

By Don Siemon



The environment movement now has a comprehensive proposals on energy use to promote, but the problem remains of how to get them implemented by governments.

26

SPRINGTIME IN WEST GERMANY

By Ally Fricker



An Australian environmental activist's impressions of the West Germany Green party. Their divisions, the dilemmas caused by their electoral success, their policies on women and peace, their structure and philosophy.

29

THE WIMMERA WASTING AWAY

By Peter Sayer

A court decision halts discharge of sewerage effluent into the Wimmera River in north-west Victoria. Its implications threaten a review of water management throughout the state.

33

FOE GROUPS	2
LETTERS	3
BACKSTAGE	4
EARTH NEWS	5
SUB FORM	9
REVIEWS	35
ACTION GUIDE	40

Cover design: Christina Kolasta, Richard Shelton, Kevin Wilson

*\$2.00 recommended retail price, ISSN 0312-1372. All material in *Chain Reaction* is copyright © *Chain Reaction* 1983. All rights reserved. For permission to reprint articles or graphics please write to the editors who will give all possible assistance. Views expressed by authors are not necessarily those of the publisher.

Contributions to *Chain Reaction* are invited. Please try to send items typed, on one side of the page, double spaced and with wide margins. Keep a copy. We do not have sufficient resources and people to return manuscripts. These few guidelines help in bringing out the magazine better and faster. The October/November edition will appear in early October 1983. Deadline for feature articles is 19 August 1983.

FOE GROUPS

Ranger

Concern has been mounting amongst environmentalists about the stability of the tailings dam at Ranger uranium mine, concern which has been exacerbated by secrecy surrounding information on the dam.

Friends of the Earth (Ryde) has at last been successful in gaining access to the second report, 'Peizometric Pressure Investigation, Northern Embankment, Ranger Tailings Dam', through the services of the Public Interest Advocacy Centre under the *Freedom of Information Act* 1982. Energy Resources of Australia Ltd will now make the document available. (At the FOE national meeting in January 1983, FOE Ryde was given the task of seeking out the document as a priority for 1983.)

FOE Ryde was not so successful in its third attempt to have Ryde Municipality declared a Nuclear Free Zone, by a margin of one vote. According to Alvia Reid, 'Ryde is a conservative area but hopefully we will wear conservatism away for we are willing to try and try again.' Twenty-four NSW and interstate councils have affiliated with the Australian Nuclear Free Zones Secretariat, and Parramatta Council has recently joined.

FRIENDS OF THE EARTH MEMBERSHIP FORM

Dear Friends of the Earth

Please find enclosed my membership fee of \$..... (as per rates below).

Name.....

Address.....

Telephone.....

Membership fees: NSW \$20 (\$10 concession); Vic \$24 (\$18); WA \$15 (\$7.50) or whatever you can afford; Qld \$15 (\$10); SA, NT, Tas, ACT \$10 or whatever you can afford. *Chain Reaction* is sent free to all members of Friends of the Earth and some groups also send members newsletters and provide discounts at their bookshops. Enquire from your local FOE group. Make cheques payable to Friends of the Earth and post to the group nearest you - see list above. Donations are very welcome. Contact us for details on how to make tax deductible donations to FOE.



Volle McHaag, Sue Pierce and Judy Spokes of the Organic Co-op.

Fruit and vegies

The Food Justice Centre of Friends of the Earth (Collingwood) has recently received a grant under the Victorian Government's Employment Initiatives Program to employ four full-time workers for six months to establish an organic fruit and vegetable cooperative in Melbourne's inner suburbs.

The main objectives of the cooperative are: to provide organically grown fruit and vegetables to the community at reasonable prices; to improve the network between growers, distributors, and consumers of organic produce; to work as part of the international campaign against the use of pesticides in agriculture; and to produce information about methods of food production and their effects on both the environment and health.

It's early stages yet, and until now the work to set up the co-op has been uphill all the way. A lot of energy has been spent developing a sound business plan to ensure that the co-op can and will survive economically. The organising collective (a group of four women) has also been involved in fund-raising activities, a membership drive, negotiations with organic suppliers, and the physical preparations for the shop. The first stage is just about over and, with continuing support, the co-op will be opened for business by mid-July 1983.

Action: If you're interested in knowing more about the co-op, or if you have any ideas or information which might be useful, drop in at 321A Smith Street, Fitzroy, Victoria, or phone (03) 419 9926.

Friends of the Earth groups

- ADELAIDE 310 Angus St, Adelaide, SA 5000 (08) 223 6917, (08) 223 5155
- BLUE MOUNTAINS 94 Waratah St, Katoomba, NSW 2780 (047) 82 2701
- BRISBANE PO Box 667, South Brisbane, Qld 4101 (07) 44 1616 AH
- CANBERRA PO Box 1875, Canberra City, ACT 2602; 116 Lewin St, Lyneham, ACT 2602 (062) 47 8868
- COLLINGWOOD 366 Smith St, Collingwood, Vic 3066 (03) 419 8700
- DARWIN PO Box 2120, Darwin, NT 5794 (089) 81 6222
- ELTHAM PO Box 295, Eltham, Vic 3095 (03) 435 9160
- HOBART 102 Bathurst St, Hobart, Tas 7000 (002) 34 5566
- LA TROBE UNIVERSITY c/- The SRC, La Trobe University, Bundoora, Vic 3083 (03) 479 2977
- MACQUARIE UNIVERSITY Box 27, Level O, Union Building, Macquarie University, North Ryde, NSW 2113
- MONASH UNIVERSITY Community Research Action Centre, Monash University, Clayton, Vic 3168 (03) 541 0811 ext 3141
- NEWTOWN PO Box 169, Newtown, NSW 2042 (02) 517 2139
- NORTHERN YORKE PENINSULA, c/- Valinor, 734 Moonta Mines, Moonta, SA 5558 (088) 25 2813
- OAKLEIGH 6 Fellows St, Hughesdale, Vic 3166
- PERTH 790 Hay St, Perth, WA 6000 (09) 321 5942
- PORT PIRIE PO Box 7, Port Pirie, SA 5540 (086) 34 5269
- RYDE 18 Kkoda St, North Ryde, NSW 2113 (02) 88 2429
- SYDNEY Floor 2, 787 George St, Sydney, NSW 2000 (02) 211 3953
- UNIVERSITY OF NEW ENGLAND c/- SRC, University of New England, Armidale, NSW 2350
- UNIVERSITY OF WESTERN AUSTRALIA Guild of Undergraduates, University of Western Australia, Nedlands, WA 6009
- WHYALLA 77 Meares St, Whyalla, SA 5600 (086) 45 2457
- CHAIN REACTION Room 14, Floor 4, 37 Swanston St, Melbourne, Vic 3000 (03) 63 5995, and Floor 2, 787 George St, Sydney, NSW 2000 (02) 211 3953
- NATIONAL LIAISON OFFICER Nick Thieberger, c/- 366 Smith St, Collingwood, Vic 3066 (03) 419 8700

ORGANIC CO-OP

Acid remarks

I find I must agree with Bette Beckwith (letters, CR 30) and with Stephen Taylor (letters, CR 31) when they criticise *Chain Reaction* for its 'distinct shift in content'.

As a *Chain Reaction* reader of some eight years vintage I feel that rather than providing a more integrated view of environmental issues, *Chain Reaction* has become increasingly inappropriate. Your 'wide-ranging approach' helps to provide a good picture of the broader social, economic and political issues, but alas you do this to the detriment of many crucial environmental issues.

At a time when Bob Hawke's government is selling us down the drain to the United States, Queensland is preparing to construct a uranium enrichment plant, farmers are preparing for another bout of defoliation via 'chemical ploughing', commercial hunters are decimating Australia's kangaroo and dingo populations, and eucalypt dieback is spreading like an epidemic across the country, you have the arrogance to feed your readership articles on job losses at BHP, a Sri Lankan women's strike, communications technology, work-induced repetition injuries, Aboriginal housing in Victoria, the cruelty of apartheid, job losses at coal mines owned by Shell, and community child care.

What can we expect next, an article on how to disguise a politically-biased magazine as 'the best environmental magazine in Australia'. I would hope not.

Personally, I have read far better and more in-depth articles on the 'broader issues' carried in *Chain Reaction* of recent times in such conventional publications as the *Sydney Morning Herald*, the *National Times*, *Australian Society*, *Social Alternatives*, and *New Doctor*. As for informed comment on environmental issues I have been forced by the dearth of material in *Chain Reaction* to subscribe to ACF's *Habitat* magazine, the Australian Museum's *Natural History* magazine, and to newsletters from

Greenpeace, WISE and MAUM.

Ah, but perhaps I am being a little too harsh. Even I must admit that there have been one or two glimmers of hope in the last few issues of *Chain Reaction*. I think perhaps the *Chain Reaction* collective has a tendency towards an overly anthropocentric view of the environment. A trait not to be encouraged.

Anyhow, please remember that it is not so much a matter of looking at the 'broader issues', but of looking at the situation of the environment through the eyes of the environment. We must remember that while humans have experienced many advantages (culture, technology, etc), they remain one among many species that are independently involved in the global ecosystem.

'The best environment magazine in Australia.' Come on *Chain Reaction*, get on with it, one more issue and you won't even be in the race.

Peter Stephens
Armidale, NSW

Acid rain

I am not well informed on environment issues, but I was shocked by the article in the *National Times* (17 June 1983) on acid rain in Europe. Europe with no green trees is

horrible to imagine!

The major sources of the acid which is blighting Europe's land and water are the internal combustion petrol engine in the motor car and stack emissions from fossil-fuelled power stations. To change internal combustion engines in cars from petrol to hydrogen (non-polluting), or to change to electric cars, requires massive education of car buyers, and I expect Friends of the Earth will play their part in that. But what about the change away from fossil-fuelled power stations?

The obvious non-polluting power station is nuclear, yet in your editorial in *Chain Reaction* 30, you lump nuclear power and nuclear war together as ecologically destructive. I know there is an argument put by Sir Mark Oliphant and others that to prevent nuclear war the whole nuclear industry must be stopped. I respect that argument although on balance I can't accept it. But Sir Mark doesn't say that nuclear power is ecologically destructive.

If Friends of the Earth intend to continue labelling nuclear power as ecologically destructive, then a clear and reasoned statement in support of that view is required. The record to date (nuclear power stations have now been operating nearly 30

LETTERS

years) is that nuclear power, Three Mile Island included, is an order of magnitude cleaner and safer than say coal-fired power. The statement I call for is too important to indulge emotionalism. Remember that plutonium is implanted in the human body to power pace-makers, or that radiation is used to combat cancer.

Finally I think Friends of the Earth owe it to themselves to rethink this issue of 'atoms for peace', and if need be, recant. The threat to our environment of acid rain, requires that we all act, and that we act together, to save it.

Arnold Spencer
Epping, NSW

You are invited to write letters to *Chain Reaction* with your comments on the magazine or on other issues of interest. Letters should be kept within 300 words so that as many as possible may be published. Longer letters may be edited. Write today to *Chain Reaction*, Room 14, Floor 4, 37 Swanston St, Melbourne, Vic 3000, Australia.

ZONE-25

KARATSU JAPAN



A postcard from Karatsu, Japan, advertising the radio call numbers of Kazutaka Mukou and Masako Mukou, members of a local anti-nuclear group. Their address is QTH 2778 Nakabaru Karatsuyama, Saga 847, Japan.

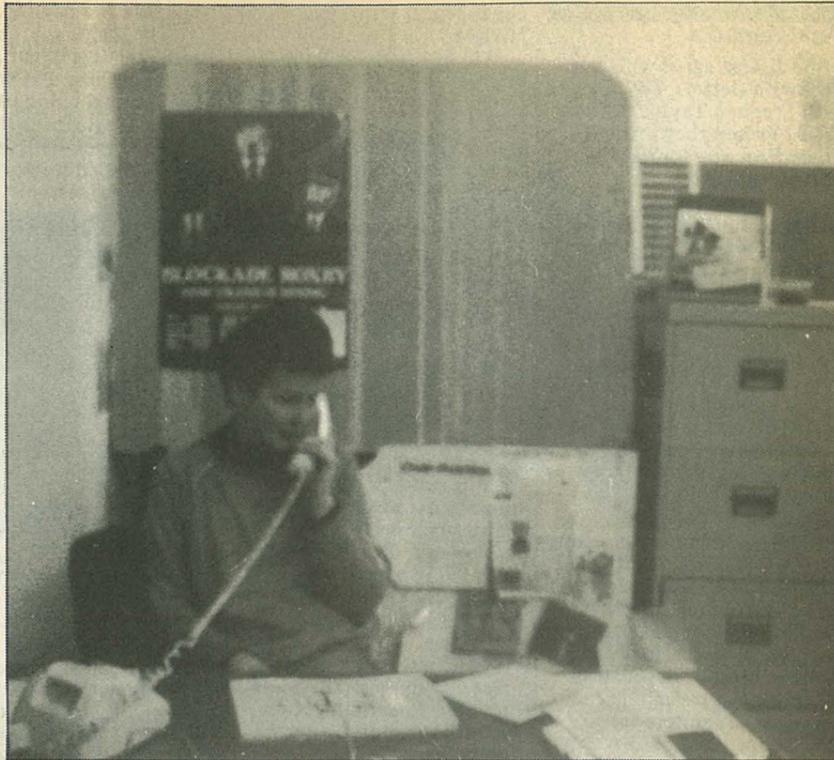
Back on the chain gang

After the chaotic days of the (Tasmanian) Wilderness Society campaign one would have thought working with the *Chain Reaction* collective would be comparatively restful. I, in my naivety, believed I was beginning a nice steady job with a working week beginning on Monday and ending on Friday. After putting in eighty hours a week at the Wilderness Society I thought that working with *Chain Reaction* would at least give me time to go home and water my plants and sleep occasionally. But no, my plants go unwatered and the people I live with think I have moved out. My growing library of books goes unread and projects that have waited until I had time still wait, the prospect of an earth-shattering piece of research recedes as the data becomes more dated.

I am not complaining as receiving a wage for something I find worthwhile and enjoyable is quite a luxury, but I still find getting paid a living wage as a bit of a novelty after all the years of being dependent on government generosity. Although it involves a sizeable stretching of the imagination to describe TEAS and unemployment benefits as generous.

Chain Reaction, as has been noted previously in 'Backstage', has been recently granted funding under the Victorian government's Employment Initiatives Program (EIP). This has allowed us to employ three full time people - production coordinator, circulation coordinator and office coordinator.

The funding has meant a lot to *Chain Reaction* as we have only recently expanded production to six copies a year which means a great deal of extra work producing and mailing out the magazine. In conjunction with the two extra issues, *Chain Reaction* is also



conducting a promotional campaign with the hope of a subsequent rise in circulation. The funding has allowed us to purchase badly needed office furniture and equipment. Although the purchase of these items is rather painstaking (the initial excitement of buying desks and filing cabinets quickly wears off) the *Chain Reaction* office in Swanston Street is gradually becoming better equipped and I hope more attractive to people wanting to work, visit or just sit around and read.

Another condition of the EIP funding is that *Chain Reaction* be set up as a cooperative. Although there has not been a structure set up as yet the time spent looking at the steps for setting up a cooperative structure is immense, necessitating the reading of metre-thick documents and government acts that are at best unintelligible.

Although there has been an increase in the work load, due to the extra two issues a year and the EIP funding, everyone at *Chain Reaction* is optimistic about maintaining the quality that we have all come to expect from *Chain Reaction*.

Because of the extra two issues a year and the consequent rise in work load we need more people to become involved in all areas of the production of *Chain Reaction* - proofreading, editing, chasing articles and graphics, design and laying out. We would also like to hear from people who are interested in writing articles for *Chain Reaction*. If you have an idea or a particular interest you think *Chain*

Reaction should be covering then please write or give us a ring. New people and new ideas are necessary if *Chain Reaction* is to remain representative of the concerns people have about their physical and social world. By becoming involved you not only assist *Chain Reaction* towards this end, you also have the opportunity to learn the various skills that go into producing a magazine. If the production aspect is not to your liking there are plenty of other projects just waiting for the right person.

I must admit to having a selfish interest in having more people become involved in *Chain Reaction* as it will give me more time to spend at home mending the leak in my ceiling, watering my plants and getting eight blissful hours sleep all in the one night.

Susan Mueller
Office coordinator

Deadlines

Chain Reaction is now published every two months. The next edition will be published in late September. Feature articles should reach us by 19 August 1983. The following edition is due out in late November. Deadline for that edition is 14 October 1983. We welcome your contributions to the magazine - letters, news items, reviews and articles.

Disabled scorn quests



DRC

A public meeting sponsored by the Women With Disabilities Feminist Collective in conjunction with the Disability Resources Centre was held in Melbourne on 25 June 1983. The purpose of the meeting was to allow disabled people to express their views on charities and methods of fundraising, particularly the Miss Victoria and Miss Australia quests.

Key speakers were: John Pullicino, a former coordinator of the Disability Resources Centre; Robyn McGinty, a representative of Your Opportunity To Talk (YOTT), a self-help group within the Spastic Society which represents the interests of disabled people; and Rhonda Galbally, Director of the Myer Foundation Trust, who has written much on the segregation and isolation of disabled people from the mainstream of community

life.

Spastic Society management had been approached to attend the debate, but general manager, Richard Gray, refused to negotiate on disabled people's objections to the quests. YOTT acted as a mouthpiece for management, claiming that the money raised through the quests was necessary to finance valuable services. However, Rhonda Galbally pointed out that 90% of revenue was gained through government funding and only 10% through private fundraising, the Miss Victoria Quest accruing a mere 4%. She also stressed that beauty quests do little to educate the community about disabilities. They serve only to perpetuate an emphasis on "beauty" which has had a profoundly negative impact on the self-esteem of people with disabilities and women in general.

A working party was formed with the short-term aim of abolishing fundraising methods such as beauty quests. The long-term aim is the complete integration of all disabled people into society so that disabled people no longer depend on a charity system for survival.

Action: For anyone wishing to pursue this issue please contact the Women With Disabilities Feminist Collective, 295 Victoria St, North Melbourne, Vic 3051, Tel: (03) 329 8515, or Disability Resources Centre, 127 Sydney Rd, Brunswick, Vic 3056, Tel: (03) 387 9855.

Earth news wanted

Contributions to Earth News are welcome. Items should be under 300 words and with visual material.

Ranger in focus

Three Canadian and one Australian, members of Greenpeace, recently were denied access to the Ranger and Nabalek uranium mines in the Northern Territory. The four were attempting to film an Australian segment on the nuclear fuel cycle.

Michelle Sheather, the Australian member of the team, said of the reaction they received from the mining companies:

Though we, by no means, expected open arms, we also did not anticipate the paranoia exhibited by these companies. Not only were we denied access to both mines, but the principal shareholders of Ranger, Energy Resources of Australia, refused to speak with us.

However, the filmmakers were able to film at Ranger by unofficially going in the back entrance.

Source: Greenpeace Newsletter, NSW.

Trees taken away

The children of Mt Druitt, New South Wales, planted over 3000 trees at Popondetta Reserve, Emerton, last month. Now all those trees are gone.

One of the local residents, Mrs Williams said, 'The night after the trees were planted people started arriving in cars and filling their boots with plants. Within a month every single plant is gone.'

Greening Australia spokesperson John Lenn said he hoped the 3000 trees had gone to good homes. 'We advise the new owners of the trees to water them well once a week in dry periods. I'm pleased that greening Mr Druitt is so successful but it's a shame that Popondetta reserve is still a bit bare. We hope the children who did the planting will not be too disappointed.'

Cuba's regrowth

Cuba's neighbouring Caribbean countries and the USA have much to learn from Cuba on environmental management and protection. It is one of only four Caribbean states with an environmental protection agency. Founded in 1980, the Centre for the Protection of the Environment and Rational Use of Natural Resources, has both executive and enforcement powers under the Cuban Academy of Sciences.

In many Caribbean countries, big landowners and companies farm the fertile flat land while the peasants plant the slopes, and the resulting erosion carries away the topsoil. Cuba's land reforms since Fidel Castro's 1959 revolution have gone some way towards controlling this form of degradation. But forests were lost before 1959. In 1982, Cuba began a national reforestation program using native species. Cuba's projected annual reforestation rate over 1981-85 is 42 900 ha, as opposed to, for example, 8 000 ha for Guatemala, a country which is only slightly smaller than Cuba. But reforestation is the least of Guatemala's problems.

The academy has been working to preserve Zapata Swamp, an area of 1 500 square kilometres on Cuba's south west coast. Some 80% of Cuba's bird species find a home here. The swamp also hosts a crocodile breeding centre.

The environment protection centre is also responsible for developing alternative energy sources. It plans to install biogas units nationwide, which convert manure from the dairies and sugarcane residue from the farm cooperatives into methane fuel.

Source: *Earthscan Bulletin*, May 1983.

Nuclear free Pacific meeting

Warm sunshine and glowing Ni-Vanuatu hospitality welcomed the 160 delegates and guests to the 4th Nuclear Free and Independent Pacific conference (NFIPC) held in Port Vila from 10 to 20 July, 1983. It was the first time the NFIPC was held in a country where the government was supportive of the issue and the conference.

Chief Willy Bongatur (the host) had called for food to be sent from throughout the islands to feed participants. Food came in such quantities that after five days he had to ask that no more be sent.

The conference reaffirmed support for the independence struggle of the people of East Timor. Delegates, especially those from Fiji, Solomon Islands and Western Samoa, returned home prepared to lobby their governments for the crucial UN East Timor vote in November.

Delegates heard reports of Japan's rethink of its proposed Pacific radioactive waste dumping plan and its current alternative, — storing the waste in square drums to reduce storage space and burn-in waste to reduce its volume. The people of Hokido



A rally in support of a nuclear free Pacific which took place during the meeting.

in the north of Japan are opposing a plan to use their island as a radioactive waste dump.

Many other anti-nuclear and independence issues were discussed and actions planned. The people of the Pacific have more than their fair

share of independence struggles in this post-colonial era, and more than their share of the nuclear nightmare.

Action: Financial support for the Australian Nuclear Free and Independent Pacific Committee can be sent to: PO Box A243, Sydney South, NSW 2001.

Pesticide market survey

In April this year 1983 the giant chemical concern Velsicol sent two technical representatives to meet with a limited number of environmental group representatives across Australia.

Velsicol manufactures a range of agricultural chemicals which it distributes throughout the world. These chemicals include the organochlorine pesticides dieldrin and chlordane, which have been gradually legislated out of use in the USA. In fact, the only agricultural use of dieldrin allowed under present USA law is application on pineapple crops in Hawaii.

The Velsicol people, two men with PhDs in toxicology, attempted to impress upon their audience that in the past Velsicol had developed a range of products that have

RESTRICTED USE PESTICIDE
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

VELSICOL
HEPTACHLOR 2EC
AGRICULTURAL INSECTICIDE

WARNING

FOR USE ONLY ON PINEAPPLE IN THE STATE OF HAWAII

Heptachlor label - chemical is the pesticide which contaminated milk after sprayed pineapple plant tops were fed to cattle.

In Hawaii, sprayed pineapple tops were fed to cows which lead to contamination of dairy milk.

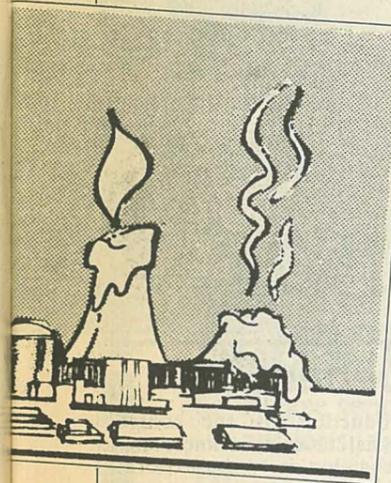
benefited the whole world. Questions concerning the past use and testing of chemicals by Velsicol in the Third World, one of Velsicol's most profitable markets, were brushed aside.

The role of the Velsicol representatives was not made clear (ostensibly it was to continue the 'dialogue' between manufacturers and

consumers). Some environmentalists who met these representatives expressed fears that multinational chemical concerns may increase the dumping in Australia of products restricted from sale in other countries as Australian environmental protection laws lag behind those existing in many other industrialised nations.

Nuclear bungle continues

It is now four years since the nuclear reactor accident that rocked the nuclear power industry occurred at Three Mile Island, USA. The accident came very close to a 'core melt-down'. The mess



left after the accident is still being cleaned up and is costing many millions of dollars.

At one stage in the clean-up, management officials decided that radiation levels were safe in a room where workers removed contaminated clothing. The management took away the respirators formerly used by the workers who helped other workers remove their clothing. When these workers refused to work without the respirators they were threatened with dismissal. One worker, William Pensyl, the last to hold out for a safe workplace, was fired; he is now suing for reinstatement and back pay. Eliminating the complainers has been management's chief response to workers' complaints.

The multi-million dollar clean-up has been described by an ex-site manager as, 'an enormous boondoggle with no end in sight... The almost insane goings-on here are giving the industry another black-eye'.

Source: *It's About Times*, June-July, 1983.

N ship protest

On 1 July 1983 a major USA fleet entered Western Australian ports, led by the nuclear-powered aircraft carrier, USS *Carl Vinson*. On the 13 ships were over 10 000 sailors and 200 nuclear bombs. Over 9000 people protested along the Fremantle waterfront on 2 July, in what was the largest ever protest aimed solely at visiting nuclear-armed and powered warships in Australia.

The state Labor government has a clear policy that nuclear vessels are not welcome in WA ports. Yet these 'visits' are increasing. They put the people of WA at grave risk. The Perth/Fremantle area is certain to be targeted by

Soviet missiles while it plays host to these warships.

In order to highlight these issues throughout Australia, a new group, Project Iceberg (PI), has been formed. PI's first public action took place on 2 July when six people were arrested for distributing leaflets to visitors boarding the guided missile cruiser, USS *Warden*. On Sunday 3 July, sixteen PI members boarded the ship and displayed banners over its bow, beneath its nuclear-armed Terrier missiles. This was the first protest in Australia on board a nuclear-armed warship.

Contact: Further details can be obtained from: Project Iceberg, PO Box 7147, Cloisters Square, Perth, WA 6000. Tel: (09) 321 9520.

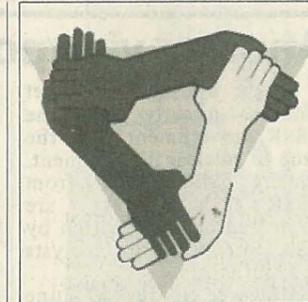


Demonstrators on board the USS *Carl Vinson* at Fremantle, Western Australia.

Gay conference

Organisation for the Ninth National Conference of Lesbians and Homosexual Men is well underway. The conference will be held in Melbourne over three days — 2, 3, 4 September 1983. The venue is the Union Building at La Trobe University in Bundoora, an outer suburb of Melbourne. The venue is accessible by wheelchair.

The theme of this year's conference is 'Gay Diversity, Gay Unity, Gay Strength'. Proposed workshops and seminars include: AIDS; peace and nuclear disarmament; 'No right turn' — a socialist forum; alcoholism and drug abuse in the lesbian community including over-eating and smoking (women-only session); disabled



women; gays in media; gays in education; and introductory workshops for people new to the gay movement.

Contact: For further information on papers being presented, costs of registration, and transport information write to: Organising Collective, PO Box 334, Fitzroy, Vic 3065.

Sorry wrong number

FOE Port Pirie PO Box 7, Port Pirie, SA 5540 (086) 345269
FOE Perth PO Box 10, North Ryde, NSW 2113 (02) 882429
FOE Sydney Floor 2, 787 George St, Sydney, NSW 2000 (02) 211 3953
FOE University of New England, c/- School of Environmental Studies, Armidale, NSW 2350
FOE University of Western Australia Guild of Undergraduates, University of Western Australia

The telephone number for Friends of the Earth (Sydney) in the 1983-84 issue of *Activist Contacts* was listed incorrectly. The correct address and telephone number is: FOE Sydney, Floor 2, 787 George St, Sydney, NSW 2000. Tel: (02) 211 3953. Please adjust your *Activist Contacts* accordingly.

Any groups who change address should notify *Chain Reaction*. We will record the change in the *Earth News 'Transition'* column.

Chemicals conference

A 'hazardous chemicals in the Australian environment' conference will be held on 12-13 August 1983 at Sydney University. The conference is sponsored by the Toxic and Hazardous Chemicals Committee of the Total Environment Centre with the Australian Consumers Association.

The first day includes a seminar on regulation and legislation relating to hazardous chemicals. An informal conference will be conducted concurrently, discussing chemicals and the workplace, hazardous-waste disposal, chemical warfare, and public rights relating to hazardous chemicals.

Seminars on 13 August will deal with chemicals and health and pesticides and agriculture. Informal discussions will include evaluation of toxicity pesticides, pesticides and health, chemical residues in food, pesticides and the garden, and pesticide alternatives.

Action: If you are interested in attending this conference, for further information contact Ms Neva Wendt, c/- Total Environment Centre, 18 Argyle St, Sydney 2000 or Tel: (02) 27 4714.

Alta dam go ahead, Samis lose

The struggle against the Alta Dam project in northern Norway ended earlier this year with the sentencing of four prominent members of the Movement Against the Damming of the Alta/Kautokeino Watercourse. They were convicted under the 'Agitation Paragraph', which was used for the first time in 50 years. It was last used during the 1920s and '30s, especially against newspaper editors who called upon workers to strike for their rights.

The four received suspended jail sentences ranging from 60 to 90 days and fines ranging from 10 000 to 20 000 Norwegian Kroner (\$1600 to \$3200). The decision was immediately appealed to the Norwegian Supreme Court. At the same time, the government announced that an appeal for amnesty was rejected.

The fight against the Alta Dam project lasted ten years. It was the most bitterly fought campaign of its type in modern Norwegian history. Public opinion was concerned with the rights of the Sami, a semi-nomadic people, who see the dam as a direct threat to their culture, and the destruction of the last unspoiled territory in Norway. (See *Chain Reaction* 25.)

Norway, as well as being a net exporter of electricity, is already the greatest consumer of electricity per capita in the world. Many people feel the dam is completely unnecessary. Others have pointed to the semi-secret NATO base which will soon be built in the region and suggest that the only reason for building the dam is to have a supply of electricity for the military. Source: World Information Service on Energy, 6 May 1983.

ACTU health policies

Three ACTU Health and Safety policies were finalised in May 1983. The policies were concerned with: the prevention of repetitive strain injury (RSI); working in heat; and chemical hazards.

The policy on RSI outlines a strategy for unions to pursue through negotiation with employers to prevent such injuries from occurring. This means tackling the occupational causes at the source, by modifying the workplace and work processes to remove or reduce the causes and by excluding them at the design stage. (For more information on RSI see *Chain Reaction* 31).

The policy on working in heat notes the risks to health associated with hot working conditions and outlines a strategy to eliminate these risks and improve the quality of the working environment.

Prevention of short-term and long-term health effects of heat stress must place primary emphasis on the control of the environmental factors. Personal factors, particularly acclimatisation, are also important in the prevention of heat stress.

The third policy adopted, on chemical hazards, is based on workers' right to know what chemicals they are working with and the toxic properties of those chemicals. The ACTU calls on the federal and state governments to establish a national chemicals licensing scheme and a 'National Institute for Environmental and Occupational Health' to monitor and control the use of chemicals in the workplace.

Source: *Health and Safety Bulletin*, June 1983, Number 28, 29 and 30.



Working paper

A new Melbourne community publication which is aimed at developing links between agencies, individuals and groups working on employment issues in Melbourne, will have its first issue in August 1983. The magazine *Wordworks* will be published by the group Employ, a self-help organisation which aims to help people obtain satisfying and rewarding work.

A spokesperson for Employ, Florenz Ronn, outlined the reasons for publishing *Wordworks*:

Another viewpoint

It is unusual to get opinions directly from the USSR government on the issue of nuclear disarmament. Usually statements from USSR's bureaucrats are quoted in articles written by USA foreign affairs analysts and journalists.

However, in the 12 June 1983 issue of *The Guardian*, a letter was published from Victor Alexander, a Soviet foreign affairs analyst based in Moscow, USSR. In his letter he draws attention to the Soviet impression that the USA is intent on developing a first-strike capability against the Soviet Union. (For a dis-

ussion of 'first-strike' see *Chain Reaction* 29).

As evidence of this he points to the contradiction in the USA's assurances at the Geneva talks of intent to make progress while the USA is negotiating with European governments on the deployment of USA nuclear missiles in Europe. He implies that the USA has 'just one end in view: to deploy first-strike nuclear missiles in Western Europe at any cost and so secure military superiority over the Soviet Union'.

Action: Employ welcomes ideas, articles and contributions. You can support *Wordworks* by subscribing (\$10 for 12 issues, \$6 for jobless) or by advertising in the magazine. Write to: Employ *Wordworks*, PO Box 88, Balaclava, Vic 3183.

Source: *The Guardian*, 12 June 1983.

Debendox

Production of the controversial morning-sickness drug Debendox is to cease worldwide, the manufacturers, Merrell Pharmaceuticals, announced in early June.

The decision came 13 days after a USA jury awarded \$A 828 000 to the family of 12-year-old Mary Oxendine who was born with a shortened right hand and missing fingers after her mother took the drug during pregnancy.

The USA parent-firm Merrell-Dow last week blamed bad publicity, rising insurance premiums and the increasing costs of defending law suits for its decision to cease production. Merrell-Dow's president, Mr David Sharrock said: 'Bendectin is safe and effective. We are taking this action for economic reasons. The real losers are the women of the future.'

Mr Ian Sheridan, the legal adviser of the Debendox Action Group, representing the parents of nearly 400 malformed children in the UK, has taken 12 of the UK cases to court in Ohio, the home of Merrell-Dow. Merrell is arguing that the cases should be returned to the UK, where it is harder to win damages.

1. My subscription

Please add me/us to **Chain Reaction's** subscription lists

for the next six editions — \$12 (individuals and non-profit groups) or \$30 (commercial organisations)

for the next twelve editions — \$24 (individuals and non-profit groups) or \$60 (commercial organisations)

2. Gift subscriptions

Please send **Chain Reaction's** next six editions, as a gift from me, to:

(Name) _____

(Address) _____

(Postcode) _____

3. Multiple subscriptions

Please send me five copies of each of the next six editions of **Chain Reaction** — \$39 (schools, libraries . . . anyone).

4. Donation

I want to support **Chain Reaction's** work. Here is a \$ _____ donation.

Rip out this page

Post to: **Chain Reaction**, Room 14, Floor 4, 37 Swanston Street, Melbourne, Vic 3000.

Enclosed please find a cheque.*

(Name) _____

(Address) _____

(Postcode) _____

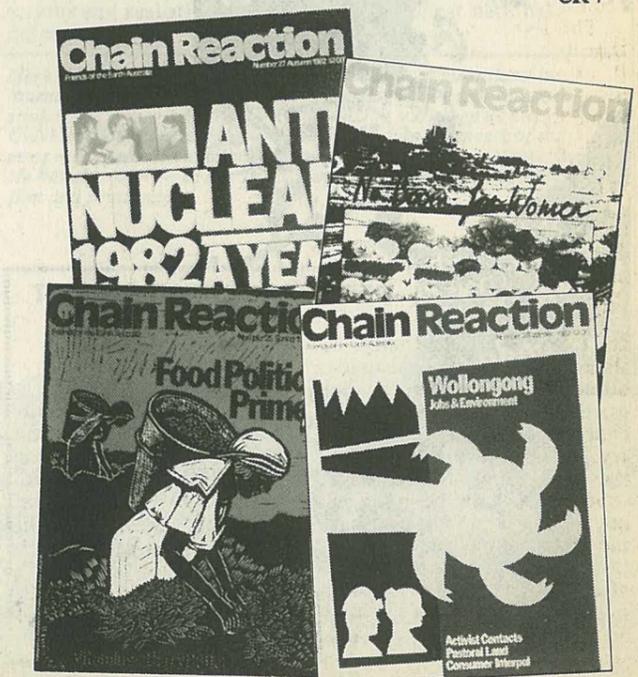
*or pay by bankcard:

(Bankcard no) _____

(Expires) _____

(Signature) _____

CR 7



FILMS FOR HIRE

Dark Circle

1982 US 82 minutes

"A chillingly eloquent testimony to the dangers represented by the nuclear industry."

Sarah Walls, The Australian

Special Merit Certificate, 1983 Academy of Motion Picture Arts and Sciences.

A VOICE FOR THE WILDERNESS

1982 Australia 48 minutes

Focuses on the Forestry Commission endangered rainforests of the Hastings River District in New South Wales.

"A tender, quick moving, intelligent and beautiful film."

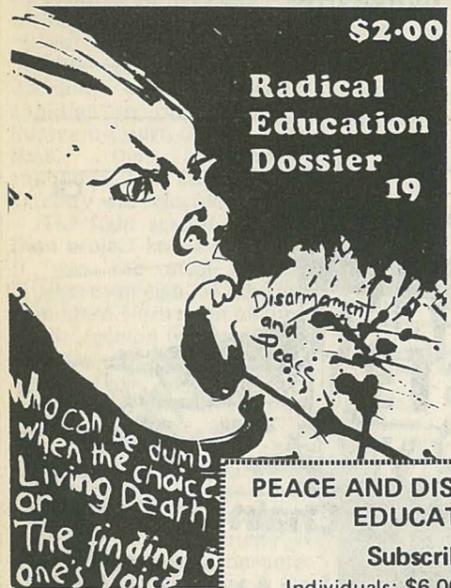
Anna-Maria Dell'Oso, Sydney Morning Herald

1983 Nomination, AFI Best Documentary.

Australian Distribution

SYDNEY FILMAKERS COOPERATIVE

PO Box 217 Kings Cross NSW 2011 (02) 330721



\$2.00

Radical Education Dossier 19

PEACE AND DISARMAMENT EDUCATION

Subscribe!

Individuals: \$6.00 for 3 issues
Institutions: \$10.00 for 3 issues

Name:

Address:

Postcode:

Send to ...

Radical Education Publications
PO Box 197, Glebe NSW 2037

Thank you. Thank you.
Thank you. Thank you.

Wilderness Centre
Shop 8, 399 Lonsdale St.
Melbourne 3000
Phone 03 675884

Wilderness Centre
362 Pitt Street
Sydney 2000
Phone 02 2677929



Defending the Sunburnt Country

A great neglected issue in the peace movement today is the lack of serious discussion of alternatives to the current defence posture of Australia. Critics of the peace movement can point to this failing and characterise the movement's position as utterly irresponsible. The issue is drawn in stark terms: either disarmament, unilaterally or multilaterally, or 'more of the same' in defence policy. In this article, Mark D Hayes examines a range of alternatives to Australia's current defence posture.

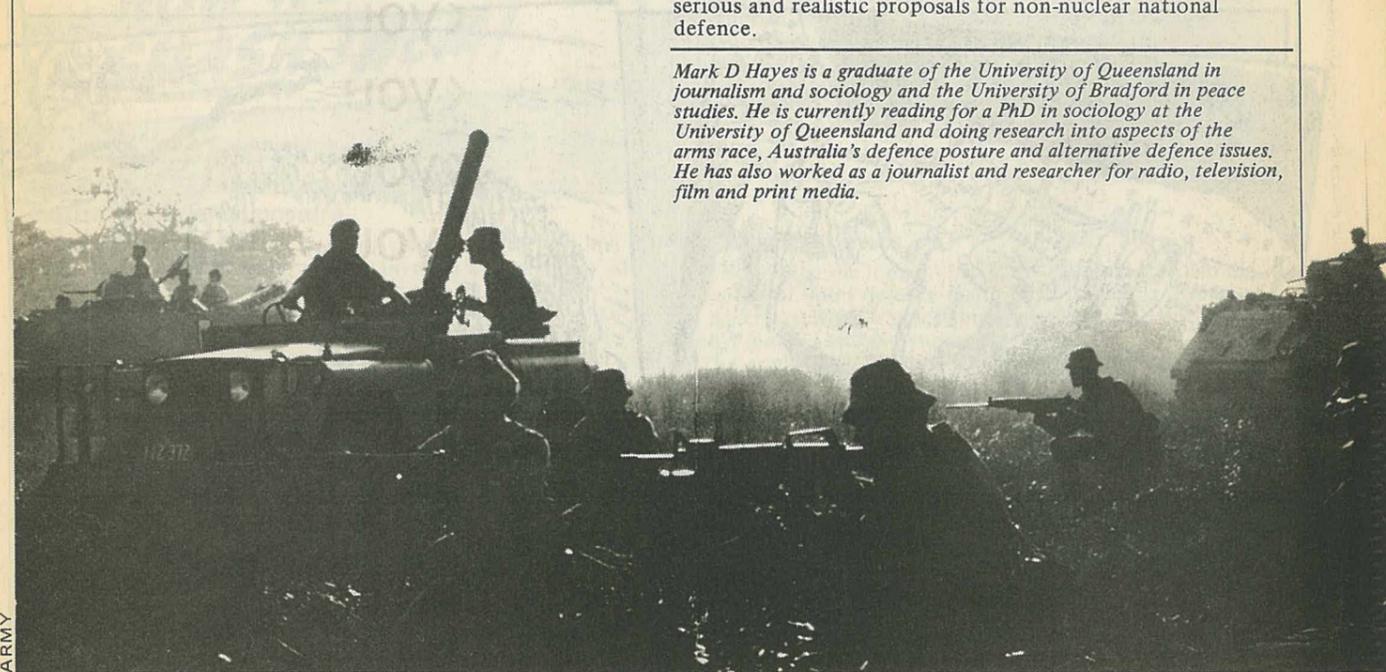
Unless one reads British weekly news magazines, such as the *Guardian Weekly* or the *New Statesman*, an event which took place in Britain in mid-May 1983 would have passed one by totally. It was all but neglected by most of the British media as well. The event was the release of a major report on an alternative defence posture for Britain. Entitled *Defence Without The Bomb*, this substantial document represents over two years' work by a think-tank attached to the School of Peace Studies at the University of Bradford in West Yorkshire.

In Britain, a nuclear-armed power in its own right as well as part of the North Atlantic Treaty Organisation (NATO), arguments about disarmament have often turned to whether Britain, or the West generally, should get rid of its nuclear weapons first - unilateralism - or whether some move should be made by the Soviet Union first and then be followed up by a reciprocal Western move - multilateralism. In Australia, where nuclear weapons are, thankfully, remote, such arguments are usually seen as either irrelevant or regarded with some puzzlement.

The debate has been one on which the peace movement and its periodic ally, the British Labour Party, has floundered more than once. Convincing moral and ethical arguments aside, the realities of national defence in a dangerous and uncertain world have apparently meant that Britain had to retain its nuclear arsenal as a contribution to Western postures of deterrence against the Soviet Union.

The release of *Defence Without The Bomb* could not be more timely. The *Guardian Weekly* greeted the report with considerable praise, saying that it removed the obvious and fundamental weakness of the unilateralist case, the lack of serious and realistic proposals for non-nuclear national defence.

Mark D Hayes is a graduate of the University of Queensland in journalism and sociology and the University of Bradford in peace studies. He is currently reading for a PhD in sociology at the University of Queensland and doing research into aspects of the arms race, Australia's defence posture and alternative defence issues. He has also worked as a journalist and researcher for radio, television, film and print media.



ARMY

Alternative defence and Australia

Defending Australia is a most vexing problem. This island-continent has a long and often very thinly populated coast. Most of the population lives in major cities clustered along the south-east seaboard, and transport links to the north and west are sparse and highly vulnerable. Australia only has a modest industrial capacity from which defence material can be assembled, but the small population is inventive and able to mobilise itself readily under threat. Australia is also in a most important strategic position with respect to both the south-western Pacific and Indian Oceans as well as being on the far side of the world from the major military powers of the northern hemisphere.

Only once in the 200-year history of Australia's occupation by Europeans has Australia been close to being seriously threatened militarily and that was during the early stages of the Second World War. As official histories reveal, some Japanese military commanders felt that they should swiftly follow up their successes in Asia and the Pacific and invade Australia. Cooler heads in Tokyo studied the situation and concluded that an invasion of Australia was simply not on, at least not until gains made elsewhere had been well and truly consolidated.

Invasion of Australia is possibly the greatest fear for many who support strong defence for Australia. However no less an authority than the Joint Parliamentary Committee on Foreign Affairs and Defence examined the prospect of invasion of Australia in their 1981 report, *Threats to Australia's Security: Their Nature and Probability*, and concluded that the only nation with the capacity to successfully invade this country at present was the United States of America! The committee cited excerpts from captured Japanese military documents dated March 1942 in which the Japanese dismissed an invasion of Australia as out of the question. But during the darkest days of the war the then Labor government secretly drew up plans for strategic withdrawals in the face of determined attack. So-called 'Townsville' and 'Brisbane' lines were apparently mapped out, behind which small groups of commandoes would be left to harass the invaders using guerilla war techniques. All facilities useful to the invaders would be dismantled and shipped south or destroyed. Needless to say, even the rumour of such plans was highly controversial in Canberra and heated questions were asked during 1941 and 1942 in parliament by members who argued that such plans smacked of cowardice.

Any prudent government would have laid such plans and would be in a position to implement them. If conventional postures and plans for national defence fail, and no alternatives exist, then governments can quite rightly be castigated for supreme negligence. Therefore alternative defence plans, of a kind best described as 'defence-in-depth', are not new to Australia. The problem is that public discussion of national defence takes place in a context in which basic questions about defence are neglected while the details of defence policy are probed with excoriating care and detail.

The real meaning of defence

Possibly the greatest public relations coup of our times took place in 1946 when the USA changed the name of its Department of War to the Department of Defense. As any dictionary reveals, 'defence' is a benign word loaded with positive connotations. It is concerned with 'protection' and 'warding off of threats'.

It behoves a nation to carefully examine the meaning of defence, particularly in a nuclear-armed world. Here is not the place to examine the sometimes intricate arguments which profoundly question the linking of 'defence', understood as 'protection', with weapons of mass indiscriminate destruction. The obvious problem with 'deterrence' is that its grim logic can only be shown to be truly flawed when it breaks down and global nuclear war erupts. It is facetious to argue that deterrence is working because nuclear war *has not* broken out.

Threats are what defence postures defend a nation against. The assessment of threats to national security is difficult as it demands very 'high-level' information about what neighbouring nations are doing and what they might realistically do in the foreseeable future. In nations such as Australia, public and political perceptions of threats can vary widely. Perceived threats arise as much from political expediency as from responsible alerting of the public to real dangers. Without any threat to national security, an expensive defence posture can become a serious liability, particularly in times of economic recession.

It is unclear what is being defended. There are obviously fundamental values and a broad lifestyle preferred by most Australians which are worthy of being defended. It would be most worthwhile to explore just what those values and lifestyle involve as part of a wider investigation and possible rediscovery of what defence is all about.

The maps he made on our luggers



We take people much at their face value in Australia. We are frank ourselves and we expect frankness in others. We have learned that this can be a mistake, and our teacher has been the Jap. One year he's traded on our coast, his divers have mined our pearling luggers, his shabos have refitted in about photographic why he was so careful when he made his soundings eastward in our bay and harbours. Now we know.



bring Japanese bombers to Broome

The maps he made for navigation then, bring his bombers now to our shores. His spies have told him how and when to strike. For this is no war of a moment's decision - this is a war Japan has planned for years. The infamous Tanaka Memorial was submitted by the corrupt Premier Tanaka, the Emperor on July 25th, 1927. It was described on the title page as 'The Memorial of Premier Tanaka'. Japanese were then for the conquest of China as well as the United States and the rest of the world. In the future, if Japan wants to control China, she must first crush the United States just as in the past she had to fight the Russo-Japanese war.

We've always despised them -
NOW WE MUST SMASH THEM!

ARGUS

Australia's defence posture

Australia's current defence posture, under Liberal/National Party or Labor Party governments, involves a strange mix of two elements: territorial defence, and an alliance with a 'great power'. From the end of the Second World War until the mid-1970s, Australia's defence posture was a form of forward defence, summed up by the proposition: 'It is better to fight an attacker on anybody's territory other than your own.' For most of the post-war period, Australia's foreign policy and defence policy followed that of the USA in most significant aspects. If the USA saw a threat in Asia, it was interpreted as a threat to Australia as well, and had to be met in Asia before the 'last domino' - Australia - fell to monolithic and expansionist communism.

In 1969, the United States signalled a significant change in its position. That change has come to be called 'the Guam doctrine' or 'the Nixon doctrine'. No longer could allies of the USA expect Uncle Sam to protect them militarily in Asia, unless and until those allies came under direct threat from another superpower. The import of the Guam doctrine

surfaced in Australian defence policy with a White Paper tabled in parliament in 1976. This paper indicated that Australia's defence posture was shifting from forward defence to territorial defence, defending Australia militarily only as far as Australia's territorial limits. Some residual elements of forward defence would remain, such as the RAAF base at Butterworth in Malaysia.

Defence postures often lag well behind defence policies because of the time it takes to acquire technology and hardware for new postures. The scrapping of HMAS Melbourne, the purchase of new naval patrol boats and guided missile frigates, the development and deployment of over-the-horizon radars, and changes in the basing and operations of RAAF, navy, and army units which have taken place over the last eight years are indicative of a territorial defence posture rather than forward defence.

At the same time, the great power alliance forms the central element in Australia's defence posture. The great power image, and its historical reality, is central to an understanding of Australian foreign relations and defence policy. Until 15 February 1942, Britain was the great power for Australia. On that date Singapore fell to the Japanese. Now Australia looked to the USA for protection.

With the end of the war, Australian political leaders sought to codify the wartime alliance with the USA, but it was not until 1952 that the ANZUS treaty was ratified between the USA, Australia, and New Zealand. Like most major treaties of this kind, ANZUS is simply an agreement to consult. It is not, and never has been, an ironclad guarantee of USA military assistance to Australia in times of crisis. The interpretation of ANZUS has varied considerably on both sides of the Pacific, but from the Australian side ANZUS has been interpreted in the public mind as an absolutely sacrosanct element in Australian defence thinking.

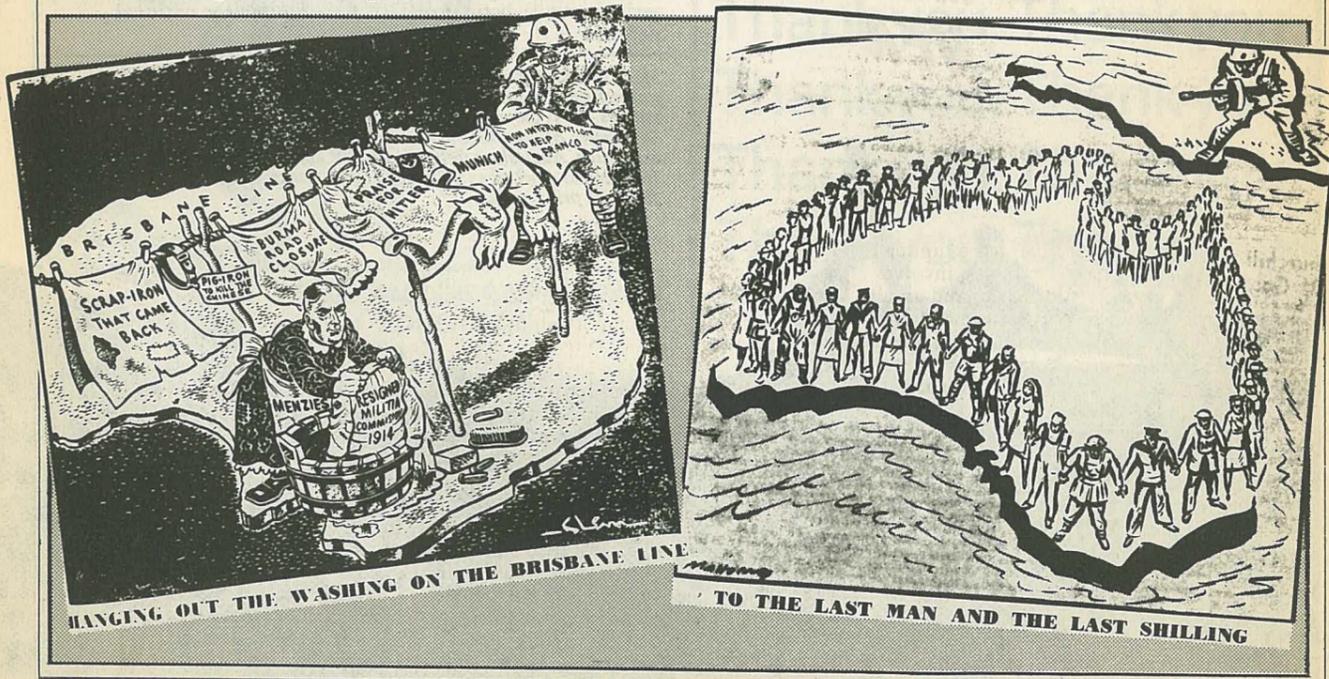
A common theme runs through the great power image in Australia's history. Australia has generally felt strongly that it should ingratiate itself into the 'good books' of the great power through involving itself in the great power's overseas conflicts. Australia's first overseas engagement of significance, the Boer War of 1880 to 1902, seems to have been the first of a series of such engagements entered into as much to 'buy insurance' with the great power as it was a legitimate defence of Australia's security.

As revisionist historians such as Michael Sexton or Dennis Phillips have indicated with convincing detail drawn from declassified and public documents, Australia's controversial involvement in Vietnam was another effort in 'buying insurance' from the new great power. Sexton, in his book *War for the Asking*, argues that Australia's involvement in Vietnam came about *not* with active encouragement from Washington but with active pressure on Washington from Canberra. As the war escalated, Washington was grateful for the involvement of the other ANZUS partners, but Australia actively wanted a piece of the action well before Washington requested it.

The American bases

More serious in the longer term is the presence in Australia of a series of 'joint defence facilities' - popularly known as the American bases - chief amongst them being North-West Cape, Pine Gap and Nurrungar.

The origin of those bases in Australia goes back at least to the sharing of intelligence information between the Allies during the Second World War. At the end of the war, the intelligence alliance between the United States, Britain, Canada, and Australia was codified in a series of secret agreements, first the Quebec Agreement of 1948 - also known as the Tripartite Agreement - and then the Quadripartite Agreement. In 1956, a further agreement, which focused on the gathering and sharing of electronic intelligence - called SIGINT and ELINT - was signed between the USA and the United Kingdom. Cooperation between the British General Communications Headquarters and the USA National Security Agency was extended to include Australian military electronic intelligence through



the Defence Signals Division, headquartered in Melbourne but with facilities in every state and overseas. As with ANZUS, the senior partner to the agreements effectively decided how the agreements would be interpreted and operated.

In the words of Robert Cooksey, later used by Dr Des Ball as the title of his definitive book on the topic, Australia came to be regarded by the USA as 'a suitable piece of real estate', ideal for a range of sophisticated military activities bound up with the USA military C³I system. The acronym C³I (C-cubed-I) refers to command, communications, control, and intelligence. (see 'Pacific first strike', *Chain Reaction* 29).

Recent developments in USA policy with respect to waging limited nuclear warfare and presumably winning it, which involve exceptionally accurate targeting of smaller nuclear warheads launched from new generations of missiles, and, recently, 'Star Wars'-type preparations with exotic laser and particle beam weapons, have meant that the joint facilities in Australia are becoming even more important to the USA. Not long ago, the Minister for Defence, Mr Gordon Scholes, confirmed that a new radome was being built at Pine Gap, but refused to elaborate on precisely what that new radome and its associated systems were for. It is almost certain that the details of the new radome and its purpose will appear in congressional testimony in Washington or in one of the USA technical journals.

Dr Ball goes so far as to claim that official Australian silence on the role of the joint facilities is not maintained in the interests of *Australian* national security but rather to keep the Australian population substantially ignorant about what the bases do. Almost anybody with access to relevant USA and European documents and journals can piece together an accurate picture of the activities of the bases. If independent researchers can do this, then the Soviet Union certainly can.

Towards alternative defence

The agenda before proponents of an alternative defence for Australia is a large one. To begin with, serious proponents of alternative defence must know an enormous amount about the intricacies of Australia's current defence posture and policy. Further, they must be well versed in the complexities of the USA defence policy and posture, including many technical details of weapons systems. A good knowledge of the global arms race or of where to get accurate and current information on it is essential.

All too often, discussions on Australia's defence take place in a context which all but denies the existence of a critical and escalating global arms race. Even generally excellent documents, such as the Joint Parliamentary Committee on Foreign Affairs and Defence report, engage in double-think; the report effectively deplores the global nuclear arms race but it reinforces the official thinking that deterrence protects Australia from nuclear war. Alternative defence proponents must begin to puncture the pervasive quasi-logic of deterrence in an environment in which the USA now has an announced first-strike nuclear targeting policy reinforced by the technology required to mount a credible, but arguably not completely overwhelming, first-strike attack on the Soviet Union.

Opponents of the peace movement will undoubtedly try to misrepresent the position of alternative defence proponents. Thorough research and deep knowledge of the issues will go far in deflecting all but the most serious criticisms. For these criticisms, a systematic analysis of steps from the current situation to some form of alternative, a transarmament policy, must be developed.

Transarmament broadly refers to policies for defence and disarmament which systematically lead towards general and complete disarmament but which at no time leave a nation undefended. Peace conversion, the conversion of military-

oriented industry, is an essential part. Transarmament also takes account of the requirement for changes in public opinion through education and public information programs.

Responsible peacemakers would be aware of the destabilising consequences for Australia and its region of acts of sudden or significant unilateral disarmament. Aside from the current and foreseeable political impossibility of such initiatives as the removal of the joint facilities, initiatives on disarmament which actually involve *disarmament* in some meaningful form require careful consideration.

The growing literature on or related to alternative defence matters indicates a wide range of perspectives and commitments to peace and disarmament. For the purposes of analysis, the literature can be divided into two broad paradigms: strategic and social.

Strategic alternatives

This author locates himself in the strategic paradigm, as evidenced by his stress upon careful research in mainstream areas of strategic and military studies and analysis. But the strategic paradigm develops responsibly beyond orthodox strategy into alternative military and quasi-military postures. An assessment of threats to national security, from within and without, and careful study on how to meet them without recourse to expensive or excessive defence preparations is central to strategic alternatives. Strategic research on alternatives seeks to exchange information and concepts with existing defence professionals. The legitimacy of existing defence activity is generally accepted.

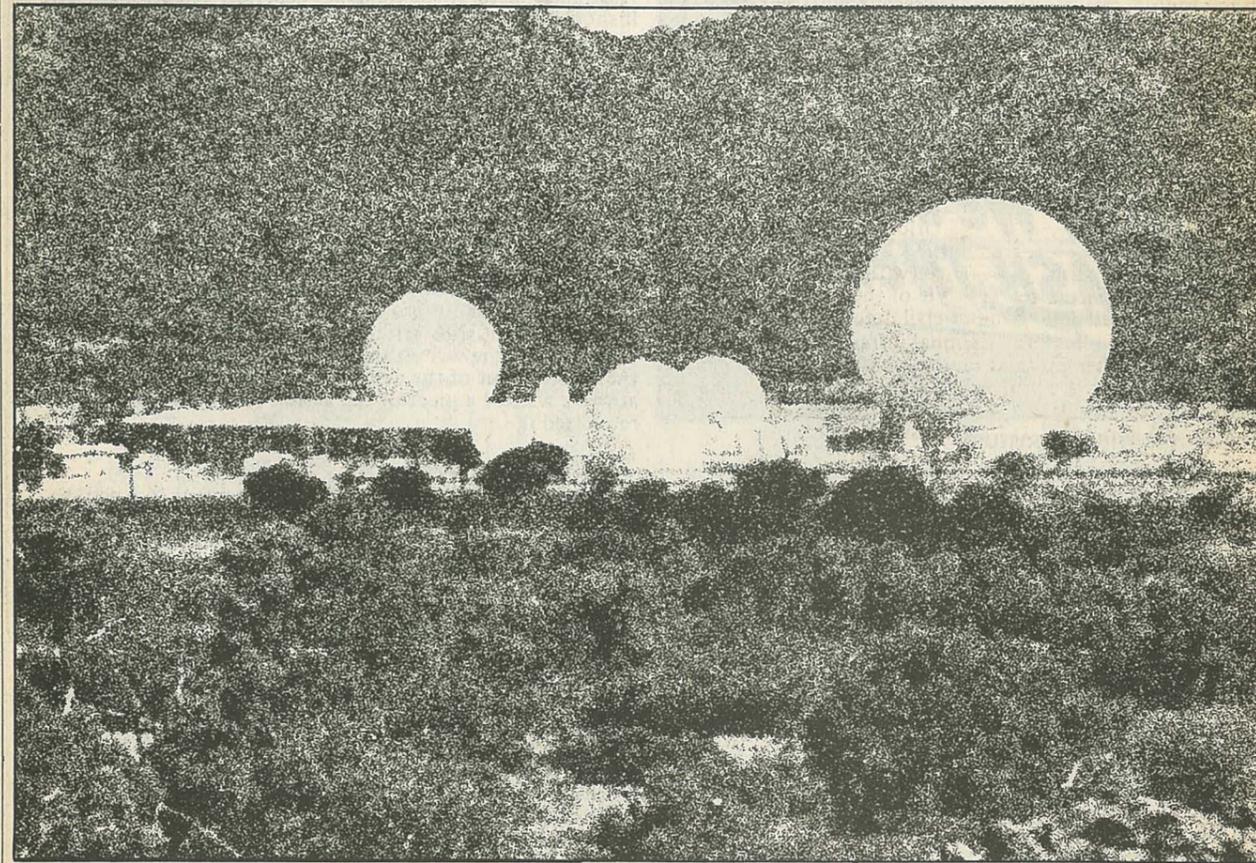
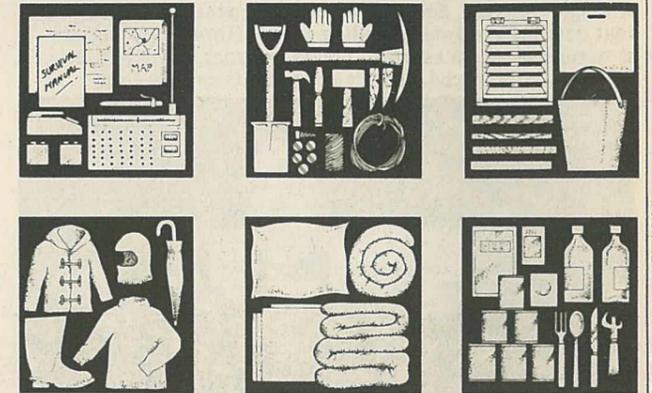
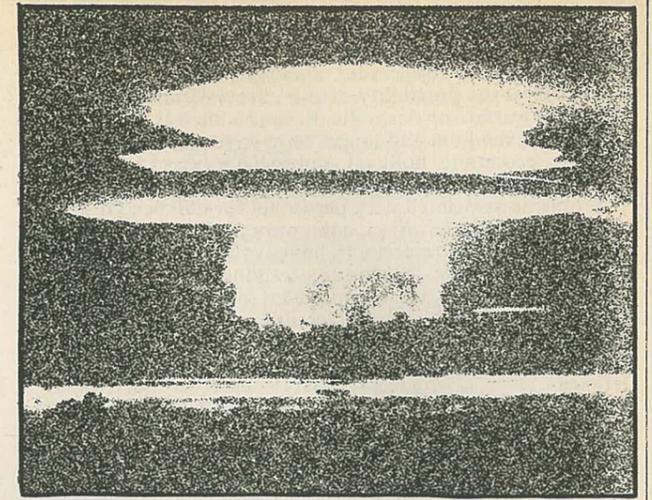
A complete range of strategic alternatives would include a nuclear-armed Australia; a significantly enhanced conventional defence capacity including development or purchase of modern 'smart' conventional weapons; and various models of militia, guerilla or civilian reservist defence against a range of threats including invasion, seize-and-hold commando attacks, illegal immigration, poaching, gun or drug running, attacks on offshore resource platforms or island territories.

Australia's size, coupled with long stretches of thinly populated coastline, and a modest national capacity to raise and sustain a completely credible national security posture against all threat possibilities, place the serious alternative strategist in a difficult position. But not an impossibly difficult one given modern military technologies in the fields of radar, 'smart' weapons, weapon platforms such as mobile patrol boats, guided missile frigates, and tracking aircraft such as the P-3 Orion and the AWAC (Advanced Warning and Control).

Coupled with strategic defence (with the stress on *defence not offence* after the style of the Swedish defence posture) is the difficult issue of civil defence - the protection of civilians and national infrastructure against conventional, chemical and biological weapons, and nuclear attack. A protected population stands a significantly greater chance of survival after a devastating attack than an unprepared population. The extensive Swedish plans for civil defence, set in the context of a formidable defence stance, should be studied closely.

Civil defence is a dilemma for a nation such as Australia, closely allied as it is with the USA in a first-strike targeting era. In such an era, civil defence can legitimately be interpreted as a signal of serious intention to initiate and wage nuclear war. Soviet civil defence plans have long been so interpreted by 'hawkish' Western commentators.

Careful study of the known and reasonably hypothesised effects of single and massed nuclear detonations give a certain amount of confidence about survival after an attack. This author has examined a three-megatonne ground burst nuclear attack on Brisbane in some detail and has concluded that, even if the attack occurs with no warning and with no protection or preparation for the population whatsoever, at least half of the one million inhabitants of the greater Brisbane area would survive in quite good condition, even taking into account significant fallout over south-east Queensland.



Pine Gap, USA military installation near Alice Springs.

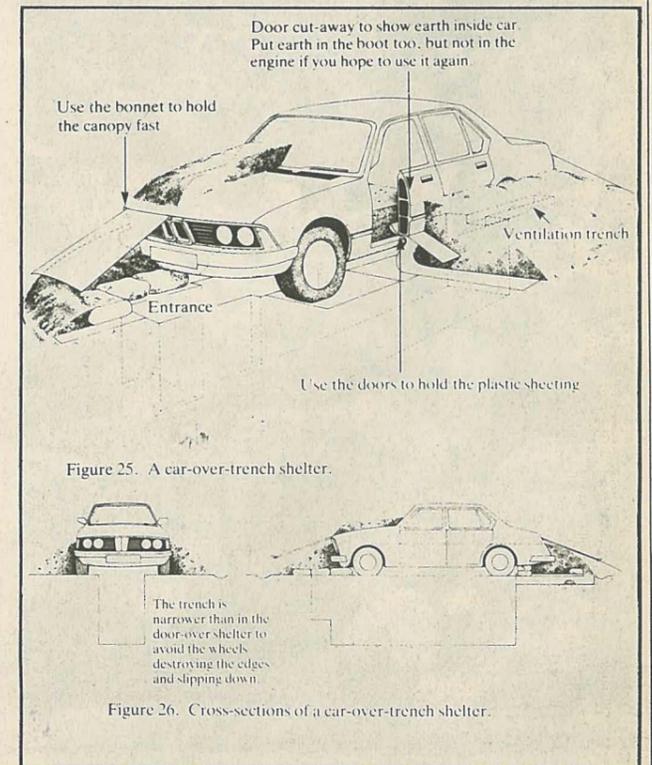


Figure 25. A car-over-trench shelter.

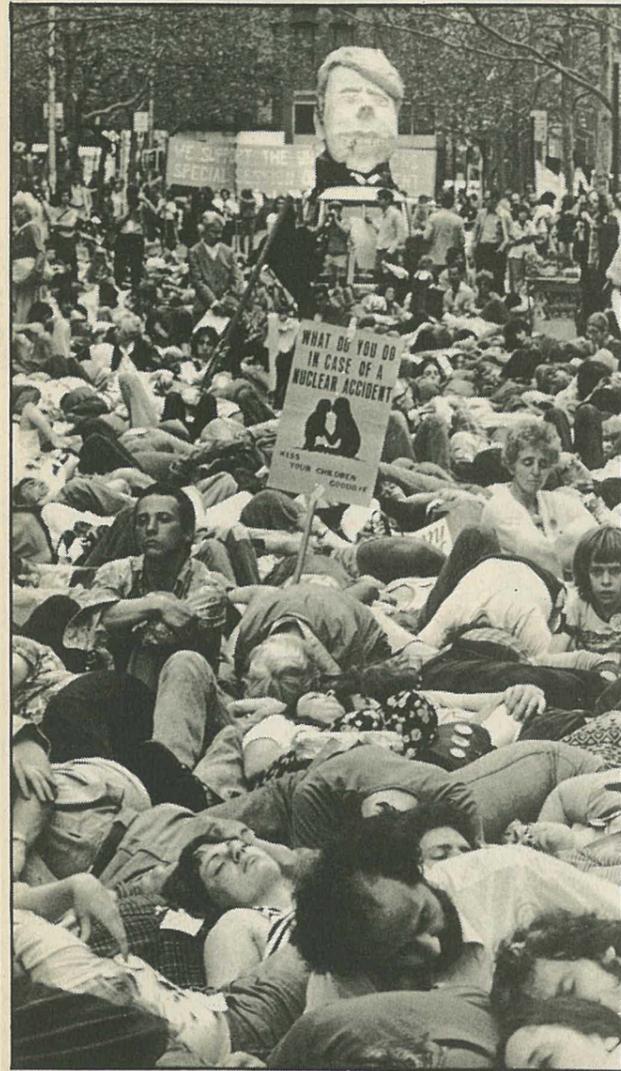
Figure 26. Cross-sections of a car-over-trench shelter.

Such conclusions should not be the basis for false confidence. A nuclear attack on an Australian city would be a disaster of the highest order. Strategic alternative defence must address the possibility of the effects of various forms of nuclear warfare on Australia. Even if a nuclear war remains limited, the medium and longer term environmental, strategic, economic, political, and social effects of the war on Australia would be substantial.

Problems associated with personnel for defence must also be examined. Conscription, compulsory military or militia defence, expanded reservist training, voluntary training for various defence tasks, raising and training the population for defence at short notice, equipment purchases, distribution, mobilisation plans all require detailed and considerable attention. Overseas experience in Sweden or Switzerland, for example, could prove valuable for alternative strategic defence.

Social defence

Social defence asks questions and makes commitments about the nature of the society being defended. It enters into ethical and moral arenas neglected or left implicit in strategic thinking. Social defence proponents understand that defence involves defending people from unjust social structures as much as from threats external to the nation. In many cases, social defence proponents emerge from



Mobilisation for Survival, New York, USA, May 1978.

anti-war, peace, environment and social justice movements and address the issue of defence from their commitments to deeper social change. Because of their broad criticisms of professionalism as an ideology for domination, of extant bureaucracies, and of many unjust aspects of our society, social defence proponents generally eschew many of the agendas and commitments of strategic alternative defence and conduct activities parallel to or even in opposition to existing defence or alternative strategic defence analysis and research.

Generally speaking, social defence proponents are committed to some form of nonviolent civilian-based defence, usually oriented towards using nonviolent conflict waging against invasion threats. The literature of nonviolent conflict waging indicates that in historical instances of invasion nonviolent resistance has sometimes achieved significant gains. Nonviolent tactics remove the habitual or coerced obedience citizens usually give to government or occupier's commands. Without such obedience or compliance with commands, rulers cannot effectively implement their policies and can never be confident that their orders will be obeyed.

Coupled with nonviolent conflict waging is a range of commitments to consensus and non-hierarchical decision making, which erode the capacity of the opposition to pick off leaders for specific repression and ensure that all members of usually small grass-roots groups are party to decisions, thus increasing group solidarity in the face of repression. The commitment to a vision of a more just and equitable society propels social defence proponents to argue that they should strive to be representatives of the kind of society they would like to see rather than await a general change in society.

Aside from study of forms of nonviolent tactics, social defence proponents are involved in specific issue campaigns which use the skills that they argue can form the core of an alternative defence posture. Gandhi, for example, recognised that the tactics being used in India against the British also had central relevance to a post-independence defence posture for India. Similarly, many people involved in recent environmental direct action campaigns in Australia — Terania (mid-1979), Middle Head (mid-1980), the Nightcap (late 1982) and the Franklin Dam campaign (late 1982 into early 1983) — as well as land rights and civil liberties struggles in Queensland and Western Australia, have seen their actions as providing invaluable first-hand experience central to a nonviolent defence posture. In seeking to protect or defend specific rights or pieces of the natural environment many Australians have begun to turn their attention to the relevance of nonviolence to Australia's defence.

What social defence proponents in Australia need to do is realistically assess the kinds of threats social defence is appropriate to address. Invasion, an unlikely threat to Australia at least in the medium term, is one. Military coup d'état, slightly less likely, can also be opposed using social defence tactics. Sieze-and-hold attacks, illegal drug and contraband running, blockades of shipping routes, and illegal poaching in Australian territorial fishing waters, present threats to Australia which social defence, in a narrowly defined form, could be powerless to address.

A wider definition of social defence would embrace appropriate foreign trade, aid, diplomatic and other policies, which reduce the causes of such threats arising. Assessing threats, and the use of modern but strictly nationally oriented intelligence gathering on possible external and domestic threats, represent two areas which social defence proponents should address seriously.

Assuming that Australia were to eventually embrace a social defence posture, the existence of nuclear weapons elsewhere in the world remains a difficult issue. Dr Brian Martin, a Canberra-based proponent of social defence, has called on the peace movement to give some attention to a post-nuclear-holocaust world. History is on Brian Martin's side as there is no evidence of a nation disarming purely on the basis of the excellent practical and moral reasons for doing so.



Protest against USS Goldsborough, Hobart, August 1982.

Dr Martin's proposition is that, post-holocaust, those best equipped to reestablish order in a nation relatively unscathed as Australia could be, would be the same kinds of people who contributed to the war. This is evidenced by the elaborate plans in place throughout the northern hemisphere to protect the political, financial, and military elite from the likely effects of nuclear weapons. All recent scenarios for a post-holocaust world agree that the political structures which will emerge would be totalitarian. The survivors of the holocaust, and there will be many by all accounts, will be controlled by armed squads with draconian powers. The peace movement, Dr Martin argues, had better devote at least some energy to figuring out what their response would be if their campaigns fail and nuclear war does occur. Social defence can contribute significantly to this process.

On defence and national security

Absolute national security cannot be achieved through even the most powerful military means. The vast military machines of the two superpowers have brought them nothing but even greater insecurity. Further, massive and escalating military expenditure is seriously eroding the very society it is supposed to be protecting. Desperately needed civil funds for social projects are cutback while the military appears to have a virtual open cheque.

So deeply ingrained in the Australian psyche is the need for defence in a traditional sense that alternative defence proponents face a major public relations problem. Strategic alternative defence proponents must hammer away at the corridors of power to gain a hearing. Social defence proponents must get on with their own agendas and contribute to a steadily rising political temperature on the whole issue of alternatives to the defence status quo. There must be increasingly informed discussion amongst Australian peacemakers, spreading out to the wider community.

The work ahead will be difficult and complex. It will be done in what is essentially a hostile environment but it must be done urgently as an essential part of the global and Australian defence and peace agenda.

For further reading

There are only three Australian references to the broad issue of alternative defence:

- A Mack, 'The Strategy of Non-Military Defence', in D Ball (ed), *Strategy and Defence: Australian Essays*, George Allen & Unwin, Sydney, 1982, pp 148-169.
- L Jones, 'Non-violent Civilian Defence: An Alternative to Collective Security', *Social Alternatives*, Vol 1 No 1, Spring 1977, pp 7-14.
- Canberra Peacemakers, 'Social Defence', a four-page broadsheet outlining aspects of social defence, April 1982.

Standard references in the field:

- A Roberts (ed), *Civilian Resistance as a National Defence: Non-Violent Action against Aggression*, Penguin, Harmondsworth, 1969.
- A Boserup & A Mack, *War Without Weapons: Nonviolence in National Defence*, Frances Pinter, London, 1974.
- S King-Hall, *Defence in the Nuclear Age*, Victor Gollancz, London, 1958.

Two excellent articles on the topic:

- G Keyes, 'Strategic Non-Violent Defence: The Construct of an Option', *Journal of Strategic Studies*, Vol 4 No 2, June 1981, pp 125-151.
- G Keyes, 'Force Without Firepower: A Doctrine of Unarmed Military Service', *CoEvolution Quarterly*, Summer 1982, pp 4-25.

Two recent contributions to the field:

- Alternative Defence Commission, *Defence without the Bomb*, Taylor and Francis, London, 1983.
- G Sharp, *Making Europe Unconquerable: A Civilian-Based Deterrence and Defence System*, World Policy Institute, New York, 1983.

Notes, references and bibliographies of the above books will lead interested readers into the substantial literature of nonviolence and strategic thinking.

Useful references on Australia's current defence posture:

- Joint Parliamentary Committee on Foreign Affairs and Defence, *Threats to Australia's Security: Their Nature and Probability*, AGPS, Canberra, 1981.
- Departments of Foreign Affairs, Defence, and Defence Support, *Annual Reports*, AGPS, Canberra.
- R O'Neill & DM Horner (eds), *Australian Defence Policy for the 1980s*, University of Queensland Press, St Lucia, 1982.

On ANZUS and related issues:

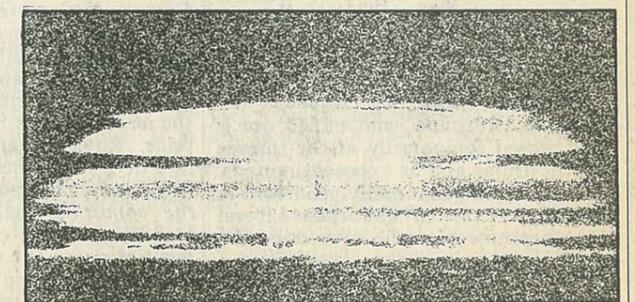
- D Ball, *A Suitable Piece of Real Estate: American Installations in Australia*, Hale & Iremonger, Sydney, 1980.
- WT Tow, 'ANZUS and American Security', *Survival*, Vol 23 No 6, November-December 1981, pp 261-271.
- Joint Parliamentary Committee on Foreign Affairs and Defence, *The ANZUS Alliance: Australia - United States' Relations*, AGPS, Canberra, 1982.
- D Phillips, *Cold War 2 and Australia*, George Allen & Unwin, Sydney, 1983.

Two relevant and very useful editions of *Social Alternatives*:

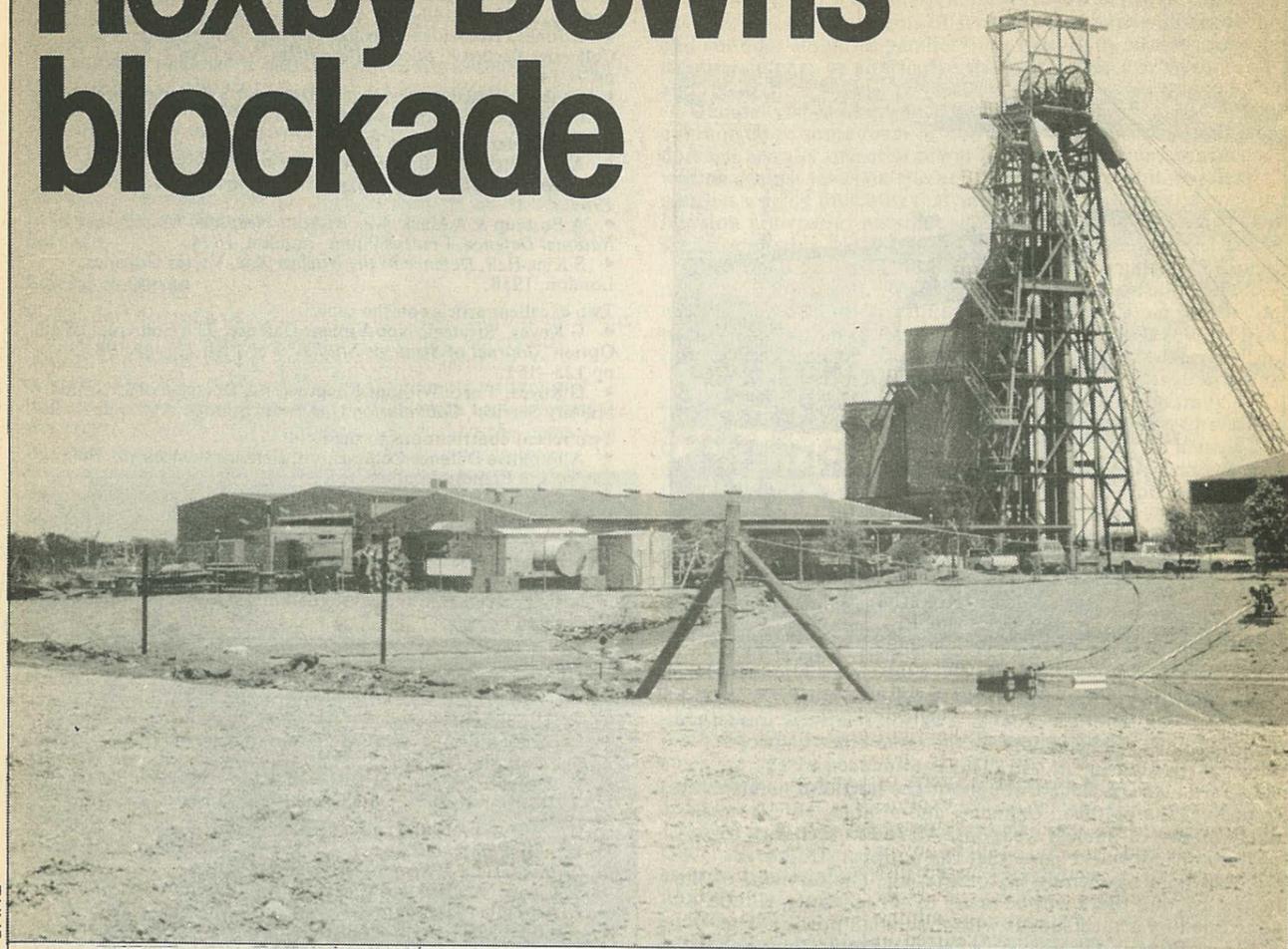
- Vol 1 No 6-7, June 1980: *World Peace: The Nonviolent Alternatives*.
- Vol 3 No 2, March 1983: *Peace and Transarmament*.

Contacts:

- Canberra Peacemakers, PO Box 1875, Canberra City, ACT 2601.
- The Social Defence Project, R R 4, Perth, Ontario, Canada K7H 3C6.
- The Association for Transarmament Studies, 3636 Lafayette, Omaha, Nebraska 68131, USA. Newsletter for \$USA4 annually.



Roxby Downs blockade



CANE

By Christina Shepherd

British Petroleum and Western Mining Corporation, as joint venturers, are pushing ahead with the Olympic Dam mining project, a mixed deposit of uranium, copper, gold, silver and rare earths. Olympic Dam has been described as 'potentially the largest uranium mine in the Western world', with approximately 1.2 million tonnes of uranium oxide. It is situated in the north of South Australia, on Roxby Downs station, east of the Flinders Ranges.

Exploratory drilling is continuing, to determine the exact extent of the deposit. The main exploratory shaft, the Whenan Shaft, has reached 500 metres underground, and mined ore is being stored temporarily at the surface both in drums and as exposed mounds.

The project was initially promoted in the early 1980s by the then Liberal state government as the saviour of the

Christina Shepherd is a member of Campaign Against Nuclear Energy (South Australia).

South Australian economy, with estimates that 5000 direct jobs and 25 000 indirect jobs would be created. The EIS (environmental impact statement) for the project, produced by Roxby Management Services (the company set up to manage the project), indicates that direct employment will be only 2500 after four years of production. Apart from this, the cost to South Australia in economic and environmental terms has been ignored.

Under the terms of the *Roxby Downs (Indenture Ratification) Act, 1982*, the state government is committed to providing \$50 million in infrastructure for the project and 150 Megawatts of electricity (one-third of the capacity of the new Northern Power Station) at cost price. Royalties are to be paid at the rate of 2.5% of the exmine value for the first five years, and then at 3.5%, on the condition that the mine operates at 85% of stated capacity over 60 consecutive days. The value flowing back to the state would be \$9.3 million, increasing to \$13 million after five years.

Whenan shaft, the main exploratory shaft at Olympic Dam. A pilot ore processing plant is due to start up early in 1984.

Interest on the initial \$50 million, plus the cost of maintaining the infrastructure, would amount to \$12-\$17 million per year causing the state to show a net loss *even if* royalties were paid. These figures would obviously vary with current mineral values.

The massive volumes of water required for the project - 6 million litres a day - are to be piped from the Great Australian Artesian Basin. Environment and conservation groups claim that this will seriously affect mound springs, which are essential to wildlife in the area, by lowering the watertable. The Flinders Ranges are on the same artesian basin. Despite bland assurances in the EIS based on a computer simulation study, it is likely that such extensive use of artesian water will be detrimental to this sensitive environment.

As history has shown, mine workers' health will be at risk despite safety precautions which will supposedly protect workers from exposure to radiation. The ventilation system at Olympic Dam is known, from recent on-site information, to have been damaged by blasting in the shaft. Hence radon gas and radioactive dust particles are not being exhausted.

Management assures workers that the radiation levels indicated by monitoring badges are safe but workers are not informed of the actual readings. In the current economic climate, workers will take whatever jobs may be offered and accept unsafe working conditions in remote locations. Mine workers are known to be unhappy with working conditions at the Olympic Dam project.

The Kokatha people, the traditional owners of the land, made an independent anthropological survey of the Roxby Downs area to identify sacred sites and other areas of significance. Their report which was ignored by RMS and is not included in the EIS, showed that the Whenan Shaft itself had already destroyed one significant site and that others would be threatened by the project. The anthropological survey commissioned by RMS is not recognised as legitimate by the Kokatha people, but it is included in the EIS. A further independent survey is currently being undertaken with some funding from the South Australian state government. The Indenture Act itself denies to Aboriginal people the right to protect any sites which are not recognised by the joint venturers or which will interfere with the exploitation of the mine.

A Labor government is now in power in South Australia. It was elected just after the federal ALP amended its policy on uranium to allow the mining and export of uranium if it occurred in conjunction with other minerals (the Hogg amendment 1982, also dubbed the 'Roxby Downs amendment'). During the election campaign the state leader Mr Bannon stated that, 'Roxby Downs can and will go ahead under a Labor government . . . the joint venturers are happy with this statement.' At that stage ALP policy would not have allowed the Olympic Dam project to go into production or receive export licences.

Interestingly enough, the Roxby Downs Indenture Bill which is now recognised as law by the government was only passed through the defection of one member of the then Labor opposition. In government Labor has forgotten amendments it proposed to the Bill itself and its expressed policy of opposing the project since it was and still is a uranium mine.

The ALP in South Australia is now promoting the mine as a mixed deposit and a job creator. However it is, on the admission of the joint venturers, not a viable project without the uranium being exploited, and furthermore it is



Newspaper headlines from reports of passage of the Roxby Downs Indenture Bill in June 1982 (background: 'Blockade Roxby' poster).

patently the most expensive job creation scheme in history - at \$500 000 invested per job.

The position of both state and federal ALP governments in allowing the Olympic Dam project to proceed, while recognising the health and environmental risks of uranium mining and the direct link to nuclear weapons, is hypocritical. Uranium from Olympic Dam is no different from uranium from the Honeymoon mine, which was closed under ALP policy. In fact there is much more of it.

Under these circumstances the Coalition for a Nuclear Free Australia (CNFA) is organising a nationally supported blockade at the Olympic Dam as a means of demonstrating citizens' opposition to uranium mining and export. Blockade training based on principles of non-violent action is underway in several states to prepare protestors for 27 August 1983 when the blockade will begin.

The blockade is intended to stop production at the mine and call on the state ALP to cancel the British Petroleum/Western Mining Corporation mining lease and implement a full moratorium on uranium mining. It is not intended to attack workers but to pressure the companies and the government which give workers no alternative, except the dole, to these unsafe jobs with poor conditions.

Preparation for the blockade is stepping up. Blockaders' training will

include legal briefing, bush survival techniques and plans of the mine. All participants will be members of an affinity group of seven to twelve people who will organise their own food, transport, etc and provide the core for consensus decision-making both within the affinity group and in the blockade as a whole. The guidelines for the blockade allow an affinity group to decide either independently or in conjunction with other groups appropriate tactics for effecting the blockade, based on non-violent civil disobedience.

Action: Obviously support is needed in many ways. Everyone cannot be a blockader but by working in a support group either at the site itself or at the staging camp in Port Augusta, or by providing financial or legal assistance you will be furthering the struggle for a nuclear-free future. If you are able to be involved in any way please contact an anti-nuclear group in your state. Children will be welcome at the protest.

Contact:

- South Australia: Campaign Against Nuclear Energy, 291A Morphett St, Adelaide, SA 5000. Tel: (08) 51 3821.
- Western Australia: Campaign Against Nuclear Energy, 790 Hay St, Perth, WA 6000. Tel: (09) 321 2269, (09) 321 5942.
- Victoria: Roxby Action Group, 366 Smith St, Collingwood, Vic 3066. Tel: (03) 419 8700.
- New South Wales: Coalition for a Nuclear Free Australia, 787 George St, Sydney, NSW 2000. Tel: (02) 211 0089.
- Queensland: Campaign Against Nuclear Power, PO Box 238, North Quay, Qld 4000. Tel: (07) 229 7143.

CHAIN REACTION/ROXBY ACTION GROUP

ENVIRONMENT EDUCATION COURSE GUIDE

So you want to learn about the environment? You might even be considering a career as an environmental activist. Hoping to learn some of the solutions to the problems of today? Well if you wanted something that will teach you an environmentally 'correct' line you are looking for pie in the sky.

In the main, tertiary environment education courses are oriented towards a 'technical fix' approach to environmental problems. Some courses, however, take a more liberal approach and include input from community campaigns and organisations or look at the concerns of sections of society whose interests are not usually considered.

Environment education courses can challenge assumptions by providing opportunities to consider a variety of view points. They may also broaden the perspectives of science students in the areas of human social concerns and provide humanities students with, at the very least, basic scientific skills which aid in the understanding of many issues.

But on the whole institutional education itself can only provide environmental education within the constraints under which the institutions operate.

Funding for courses within the education institutions depends a lot on student numbers. In today's economic conditions courses that are more relevant to employment attract larger numbers of students.

So a major factor behind provision of environment education in tertiary institutions in Australia is the needs of employer groups.

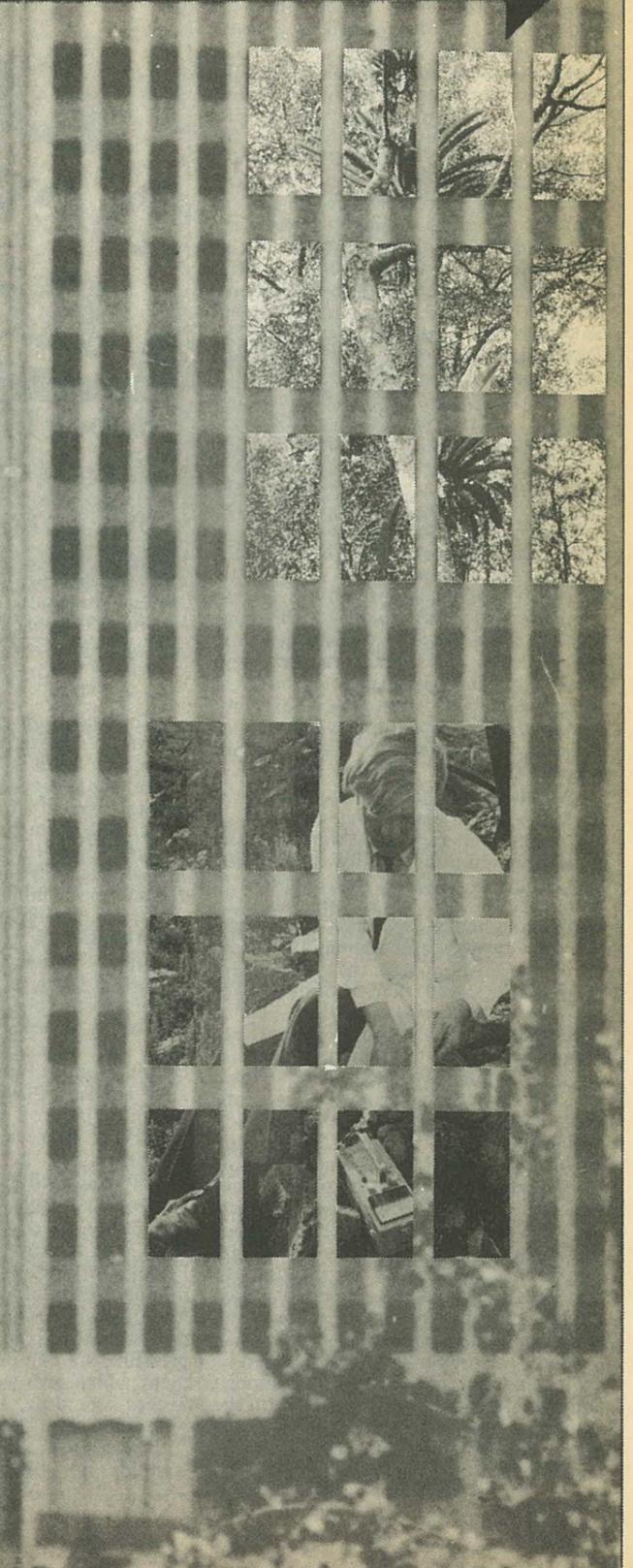
There are limited funds for which tertiary education institutions are competing. And government funding over the last decade has become more restricted through ever increasing cut-backs. Funds from private organisations or beneficial foundations are also available but only in areas in which the organisation has a vested interest.

The funding factor limits the approach that an environment course might take, such as looking at a solution to environmental problems by advocating major social changes.

Structure and content of individual courses is decided by factors other than just funding. The environmental interests and expertise of the staff, and whether there is input from community or business interests in the course, are also important. As an example, it is obviously important for a course dealing with occupational health and safety to have input from trade unions.

You need to take the above factors into consideration when choosing your course. However, we have only been able to include a small amount of such information in the guide. In future editions of *Chain Reaction* we hope to be able to use students' assessments of courses they are undertaking or have recently completed in preparing a more critical outline of tertiary environment education courses and indeed environment education itself.

20 Chain Reaction



Two postgraduate students have written to *Chain Reaction* outlining views on their tertiary environment education:

Dear *Chain Reaction*,

For the past three and a half years we have had the opportunity to pursue postgraduate environmental courses at the University of Tasmania, the University of Western Australia and Griffith University, Queensland. We are now studying at Griffith University for our PhDs.

In making choices about where we would go, and what postgraduate study we would follow, we closely examined the environmental courses offered at many of the universities throughout Australia. We feel strongly that an integral part of environmental education should be the social aspects of environmental concerns ie an integration of political, philosophical and sociological aspects of environmental knowledge should be included in courses as well as the technocratic options. Unfortunately, the technocratic options such as environmental science, soil and water conservation, waste management, flora and fauna management, energy and resource management, and environmental economics and cost benefit analysis, to name a few, seem to predominate in Australian environmental education courses. As such, from our point of view, environmental courses should educate students to view environmental matters from a holistic perspective.

The various courses around Australia differ tremendously in content and intent. To some extent this tends to be a product of the specialisations and values of the people running the courses. Having said this, could we give you our value judgements on two such courses that represent the best and the worst, respectfully, of what's on offer. Firstly, one of the best, in our opinion, is that offered by the Centre for Environmental Studies at the University of Tasmania in Hobart. This two-year full-time Master's coursework degree is one of the best because it genuinely attempts to achieve an integration of various disciplinary contributions. In other words a holistic perspective is fostered and students are encouraged to take a multi-disciplinary approach to their work. Students are encouraged to think about and justify the inevitable value judgements that seem to have to be made about environmental issues and problems. Also, students can choose environmental topics for their essays, projects and finally their thesis, which interest them personally, and are not forced to work on specific topics chosen by their course advisors.

At the other end of the spectrum is the Master of Science in Natural Resource Management offered by the Agricultural Faculty at the University of Western Australia. Students in this course have complained bitterly at the lack of interest shown by the course coordinators in the structuring of the course and the work done by the students.

Between these two examples there are various departments throughout Australia that are doing some sort of environmental research. The largest collection of such academics can be found at the School of Australian Environmental Studies, Griffith University, Brisbane. This school teaches both undergraduate and postgraduate courses, but suffers from an inability to come to terms with the multi-disciplinary demands of environmental studies. A close examination of the school reveals separate disciplinary enclaves of mathematics, zoology, soil science and social science. The School of is aware of its problems and hopefully will come to terms with them in the future.

Finally, a word of warning about environmental courses given by departments that are almost exclusively scientifically orientated. Research by people in these departments can be exclusively concerned with a technical fix approach to society's environmental and ecological problems. Apart from being inadequate, such an approach actually validates the continuance of environmentally damaging practices by allowing those who are degrading the environment to cite the fact that 'the experts are working on the problem and will soon have an answer'.

The only way environmentalists will ultimately be able to achieve a long standing social impact is through beginning to understand, not only the technical problems, but also the social institutions, governmental processes and the philosophic values and beliefs underpinning our society. Such understanding should be the outcome of environmental education courses.

Thanks for giving us the opportunity to air our views.
Phil Tighe and Ros Taplin

NOTES ON THE COURSE GUIDE

- The guide includes courses which have a broader scope than simply 'Environmental Science'. Courses listed under headings such as 'Urban and Regional Planning' have been included as they deal with government planning and developments effecting both the social and natural environment.
- Most courses listed in the guide have included excerpts from information provided by course organisers. If noted with the entry the information has been provided by student critics.
- If you find a course which interests you, you will need to write to 'The Registrar' at the address provided for more detailed information.

KEY		G Dip	Graduate Diploma
Assoc	Associate	Hons	Honours
B	Bachelor	M	Master
Dip	Diploma	PE	Partly external
E	External	PhD	Doctor of Philosophy
FT	Full time	PT	Part Time

COURSE GUIDE

Adelaide University
GPO Box 498
Adelaide SA 5001

Environmental studies: G Dip ½ year FT; M 2 years FT or 1 year FT and 2 years PT

The main aim of these courses is to present an integrated approach to environmental problems so that graduates, regardless of their previous training, gain a wider knowledge and more comprehensive understanding of the environment which will enable them to apply their basic disciplines to the solution of environmental problems.

Urban and regional planning: M 2 years FT or PT equivalent, from appropriate first degree by study and research.

Australian National University
PO Box 4
Canberra ACT 2600

Human sciences: Major in B Arts or B Science 3 years FT or PT equivalent, Hons available

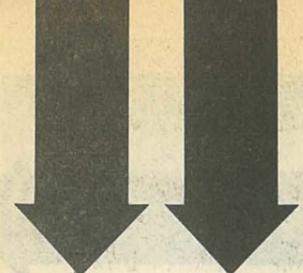
The program consists of two units designed to be taken in sequence. They provide students with an opportunity to integrate their university studies around topics and issues of crucial importance in contemporary society. The Human Ecology unit studies the interaction between human societies and their environments in the past, present and future, and the ways in which natural processes affect and are affected by cultural ideas and practices. The Human Adaptability unit examines the biological and cultural means by which human beings adapt to their social and natural environments and the implications of these.

Resource and environmental studies: M Arts 2 years FT or PT equivalent

It is not the intention of the course to produce experts in one or a number of environmental disciplines, but rather to provide an overview of several of the important aspects of environmental studies.

Ballarat CAE
Gear Ave
Mt Helen Vic 3350

Biological resources management: B Applied Science, 3 years FT or PT equivalent.



Canberra CAE
PO Box 1
Belconnen ACT 2617

Biology: Assoc Dip 2 years FT or PT equivalent.
Ecology: B Applied Science in Ecology, Natural Resources, Human Biology or Land Science, 3 years FT or PT equivalent
Human biology — combining studies of biological and ecological principles, the functioning of humans as organisms and their relationship with the external world.

Resource management: G Dip 1 year FT or PT equivalent; M Applied Science 2 years FT or PT equivalent
The courses apply the principles of various scientific disciplines in the management of natural resources. Such a vocationally oriented approach has proven most successful given the need in Australia for persons with problem solving skills rather than knowledge of any one particular discipline.

Urban and regional planning: G Dip 2 years PT.

Chisholm Institute of Technology
PO Box 197
Caulfield East Vic 3145

Outdoor studies: G Dip 1 year FT or PT equivalent, relatively flexible entry requirements
Aim is to give teachers, youth leaders and recreational workers sufficient background to develop programs that present an 'integrated' approach which will allow young people to derive maximum benefit from their interaction with the urban and rural environment.

Commonwealth Institute of Health
Building A27
University of Sydney
NSW 2006

Occupational health: 1 year FT from registration as a medical practitioner.

Deakin University
Vic 3127

Occupational hygiene: 1 year FT or PT equivalent; higher degrees by research.
Toxicology including environmental chemistry and human nutrition: M Science and M Arts 1–2 years FT or PT equivalent; PhD 1 year FT or PT equivalent or E equivalent.

Flinders University
Bedford Park SA 5042

Ecology: Major in B Science 3 years FT, 4 years Hons, or PT equivalent.
Urban and social planning: G Dip 3 years PT after appropriate degree or equivalent.

Footscray Institute of Technology
PO Box 64
Footscray Vic 3011

Urban Planning: G Dip 2 years PT
To deal with the problems of the city is to become immersed in the problems of the world, in the use of its resources and thus, finally, in the political systems which manage and allocate those resources . . . the world is a city, and urbanism is everybody's business.
Urban Studies: B Arts 3 years FT or 5 years PT.

Griffith University
Nathan Qld 4111

Australian environmental studies: B Science 3 years FT, 22 Chain Reaction

4 years Hons, or PT equivalent: M Science 2 years PT by coursework

Acts as a forum in the examination of environmental problems; M Philosophy 1–3 years FT, 2–6 years PT, by research; PhD 2–5 years FT, 4–8 years PT, by research
The School of Australian Environmental Studies suffers from an inability to come to terms with the multi-disciplinary demands of environmental studies . . . The school is aware of its problems and hopefully will come to terms with them in the future. (Quote from letter by Phil Tighe and Ros Taplin)

Ecosystem management: Major in B Science 3 years FT, 4 years Hons, or PT equivalent.
Resource management: Major in B Science 3 years FT, 4 years Hons, or PT equivalent.

Hawkesbury Agricultural College
Richmond NSW 2753

Environmental health: B Applied Science 3 years FT
This course has been designed to meet the training needs of health and building surveyors and food inspectors in local and state government and industry and commerce.

James Cook University
North Queensland 4811

Regional planning: G Dip 1 year FT or PT equivalent, by coursework; M Economics 1 year FT or PT equivalent, by research with a coursework component.

Lincoln Institute
625 Swanston St
Carlton Vic 3063

Community health: G Dip 2 years PT.

Macquarie University
North Ryde NSW 2113

Environmental planning: M 2 years FT, or 3 years PT
This is especially oriented toward professional training and to formally linking the urban and environmental fields.
Environmental studies: B Arts and B Science both 3 years FT or PT equivalent; G Dip 2 years PT; M 2 years FT, or 3 years PT.

Urban studies: G Dip 1 year FT or PT equivalent; M 2 years FT, or 3 years PT

The primary aim of the program in urban studies is to provide an interpretation of the socio-economic structure and physical fabric of urban places that is founded in, but not wholly bounded by, the social sciences. The context in which decisions relating to the urban environment and the structure of society are made extends beyond the technical disciplines of architecture, engineering and town planning (as traditionally defined), and increasingly involves the social and environmental sciences. The program in urban studies is a product of this change in emphasis. It is intended to develop particular expertise in the substantive knowledge and skills of those social sciences most applicable to the fields of planning and urban management while retaining an appropriate balance of material covering the technical and procedural aspects of urban development. Thus it is a program which reverses the traditional emphasis in planning courses and aims to produce graduates who will perform complementary roles to those trained in technically and physically oriented fields.

Melbourne University
Swanston St
Parkville Vic 3052

Environmental studies: M 1–2 years FT, or 4 years PT.

Town and regional planning: B 4 years FT, Hons available; M 2 years FT, or 5 years PT, includes preliminary studies
This course aims to equip students with the necessary knowledge and skills to enable them to assume responsible roles in organisations concerned with the management of urban and regional development processes.

Urban planning: M 2 years PT from B Town and Regional Planning or equivalent, or 4 years PT including preliminary studies.

Mitchell CAE
Bathurst NSW 2795

Environmental control: Assoc Dip 2 years FT, or 4 years PT, or 4 years E

Aims to develop in the student a general awareness of the impact of humans and their activities on the environment as well as the impact of the environment on humans. At the same time, the student should be able to develop and extend specialist skills in the management of the environment and day-to-day environmental control programmes.

Environmental studies: Assoc Dip PT or E.

Monash University
Clayton Vic 3168

Environmental science: M 2 years FT, 5 years PT, by coursework and minor thesis

Murdoch University
South St
Murdoch WA 6150

Community science: G Dip 1 year FT or 2 years PT or 2 years E

Designed specifically for science and engineering graduates. Provides an understanding of the role and impact of science and technology on the human community. By concentrating on the knowledge and skills of policy analysis, students will broaden their technically-oriented qualifications into areas more related to management.

Environmental science: B Science 3 years FT, 4 years Hons, or PT equivalent; G Dip new course in 1984; M Philosophy 1½ years FT or PT equivalent, by research; PhD 3 years FT or PT equivalent, by research

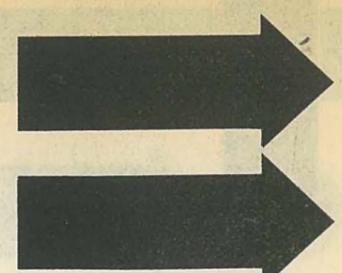
Due to the diversity and complexity of the environment, environmental science for all its advances is today rarely able to provide the quantitative information, interpretation and prediction needed by society to solve its problems . . . As our knowledge of the environment and our predictive capability increase and demands of the environment multiply, there will be increasing pressure to control it, and to mitigate the effect of human interference with it.

Population and world resources: B Arts or B Science both 3 years FT, 4 years Hons, or PT equivalent, or E equivalent; M Philosophy 1½ years FT or PT equivalent by research; PhD 3 years FT or PT equivalent by research.

New England University
Armidale NSW 2351

Natural resources: B 4 years FT or PT equivalent; G Dip 1–2 years FT, 2–4 years PT, 2–4 years E; M 1–3 years FT, 2–6 years E, by coursework and/or research
This can lead to careers in water and soil conservation, national parks and wildlife services, land management, regional planning and environmental control organisations, resource development industries, natural resources and environmental research and consulting groups and government agencies.

Resource engineering: B Natural Resources and B Civil Engineering 5½ years FT combined course with Newcastle University



Non-urban land use and management: specialisation in B Urban and Regional Planning 4 years FT or PT equivalent.
Urban and regional planning: B 4 years FT or PT equivalent or E equivalent

The aim is to develop in graduates a set of skills pertinent to urban and rural land use allocation decisions at local and state government levels of responsibility . . . The program combines training and experience in research methodology courses within the social and environmental science disciplines . . . This emphasis is somewhat different to that of many other planning schools in so far as it pays rather less attention to a background in engineering and architecture; G Dip 1 year FT or PT equivalent or E equivalent; M 1–3 years FT, 2–6 years PT, E equivalent, by coursework and/or research; PhD 3–4 years FT or 3–6 years PT.

New South Wales Institute of Technology
PO Box 123
Broadway NSW 2007

Arid lands management: G Dip 1 year FT or PT equivalent; M Applied Science 1 year FT or PT equivalent, by coursework; M Engineering Science 1 year FT or PT equivalent, by research and/or coursework.

Environmental biology: Major in B Applied Science 3 years FT or PT equivalent.

Urban estate management: G Dip 2 years PT.

New South Wales
Department of TAFE
Railway Square
Broadway NSW 2007

Health and building surveying: Assoc Dip 4 years FT or 1 year FT and 2 years PT

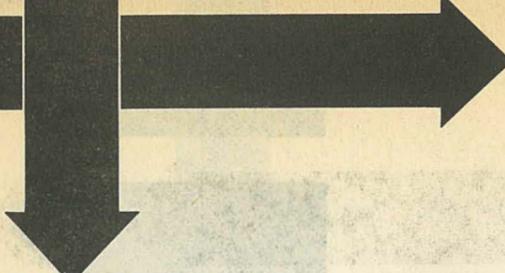
Four strands: a public health strand beginning with the fundamentals of biology leading to a consideration of the public health aspects of biology and a program of health education; a building strand dealing with the physical environment and including the consideration of the factors involved in town planning and building construction that make for healthy living and the safety and adequacy of buildings; an administrative strand that deals with the way in which local government is organised and the means by which the health and building inspector may initiate and maintain an effective program in the areas of public health and building development; a community studies strand concerned with people and groups in the community, social organisations and agencies, social amenities and needs.

New South Wales University
PO Box 1
Kensington NSW 2033

Arid lands management: G Dip 1 year FT or PT equivalent; M Applied Science 1 year FT or PT equivalent, by coursework; M Engineering Science 1 year FT or PT equivalent, by research and/or coursework.

Environmental education: B Education 20 hour optional course; Dip Education 20 hour optional course; M Education 28 hour optional course

The basic theme of these courses is the general 'limits to growth' case that the pursuit of affluence and economic growth is generating major global problems concerning resource and energy scarcity, the pressure to adopt nuclear energy, the destruction of the environment, the poverty and underdevelopment of the Third World and the unjust distribution of world resources, conflict between nations and therefore the increasing probability of nuclear war, and a declining quality of life. The basic cause of these problems is an economic system which cannot reduce production and consumption to levels that would permit satisfactory living standards. A satisfactory alternative society is easily conceived, but our chances of reaching it depend



entirely on whether sufficient public awareness of these issues can be raised. It is therefore essentially an educational problem.

Town planning: B 5 years FT, 5 years Hons; M FT and PT, by research.

Northern Rivers CAE
PO Box 157
Lismore NSW 2480

Environmental studies and resource management: Assoc Dip 2 years FT or PT equivalent.

Orange Agricultural College
PO Box 883
Orange NSW 2800

Environmental control: Assoc Dip 2 years FT or PT equivalent or 4 years E, held jointly with Mitchell CAE.

Queensland Institute of Technology
GPO Box 2434
Brisbane Qld 4000

Environmental studies: B Applied Science 3 years FT or PT equivalent; G Dip 3 years PT.

Landscape architecture: G Dip 3 years FT

The work of the landscape architect has changed . . . to include a much broader role as a professional design and management consultant on a wide range of large-scale environmental problems.

Urban and regional planning: G Dip 3 years PT.

Queensland University
St Lucia Qld 4067

Ecology: Major in B Science 3 years FT or PT equivalent.

Environmental studies: Major in B Arts or B Science 3 years FT or PT equivalent or E equivalent.

Health Surveying: Assoc Dip 2 years FT or PT equivalent.

Regional and town planning: B 4 years FT, Hons awarded on merit, Town Planning Hons by thesis; M 1 year FT or PT.

Urban and Regional Planning: M 2–4 years FT, 3–6 years PT, by coursework and thesis; PhD 3 years FT or PT equivalent from Hons by thesis.

Riverina CAE
PO Box 588
Wagga Wagga NSW 2650

Consumer affairs: B Arts (food science option) 3 years FT or PT equivalent or E equivalent.

Agricultural protection: Assoc Dip 4 years E

The course provides a broad education in the applied areas of plant and animal protection with emphasis on practices associated with agricultural regulatory services throughout Australia. [This is cow pat talk for pesticide use]. Students are normally expected to be in approved government or private industry employment.

Roseworthy Agricultural College
Roseworthy SA 5371

Natural resources: Dip Applied Science 3 years FT or PT equivalent; G Dip 1 year FT or PT equivalent

The term 'natural resources' is used to cover both the renewable biological resources and the physical components of the environment which sustain them. These must be distinguished from the non-renewable resources such as minerals. The concept of resources management involves a knowledge not only of the inter-relationships between biological and physical factors, but also processes and human activity. Accordingly, the course contains a dual emphasis on scientific and anthropocentric matters with management-oriented studies

24 Chain Reaction

integrating the two. It is proposed to submit this course for re-accreditation as a degree.

Royal Melbourne Institute of Technology
GPO Box 2476V
Melbourne Vic 3001

Industrial ergonomics: G Dip.

Urban and regional planning: B Applied Science (Planning) 3 years FT or PT equivalent; G Dip 4 years PT or E equivalent

The planner in today's world has to be capable of coping with rapid change in values and circumstances, and needs to be able to understand how complex systems function and interact with each other. What distinguishes planning from other tasks is that it attempts to deal with this whole, or overall system of problems. For example, road traffic congestion at certain times, in a given area, could have a number of causes. An improvement to the road system, however, might entice even more cars to travel through the area leading to: added disturbance, noise and further congestion; even fewer people using public transport; and the creation of a bigger problem which would be harder to solve, in say, ten years' time.

Socio-environmental assessment & policy: B Social Science 3 years FT

New course commences in 1984. This is an interdisciplinary course in social ecology, examining the nature of social organisation and environmental processes. It aims to focus on the relationship between social systems and ecosystems, on the nature and effect of technical development and on environmental design, assessment, planning and policy. The course places an emphasis on student responsibility and choice, and on practical involvement in current socio-environmental issues.

South Australian CAE
Salisbury Campus
Smith Rd
Salisbury East SA 5109

Outdoor education: 1 year FT or PT equivalent, Dip Education or equivalent required for entry

Aims to provide opportunities for teachers to evolve concepts designed to build and strengthen the environmental ethic.

South Australian Institute of Technology
North Terrace
Adelaide SA 5000

Environmental planning: G Dip 2 years PT.

Urban and regional planning: B Arts 3 years FT or PT equivalent

The course is designed to provide an advanced educational program for persons already qualified in urban and landscape planning or in basic disciplines relevant to planning. It is intended to prepare students for a professional career in government or private enterprise employment.

Swinburne Institute of Technology
PO Box 218
Hawthorn Vic 3122

Environmental health: Dip Applied Science 3½ years co-operative PT.

Urban planning: G Dip 3 years PT.

Sydney CAE
Sydney Institute of Education
PO Box 129
Newtown NSW 2042

Environment education: Dip Teaching 3 years FT;

B Education in geography 4 years FT; G Dip Education

studies in Environmental Education 2 years PT

A program for qualified experienced teachers.

Sydney University
NSW 2006

Environmental engineering: G Dip in the Department of

Chemical Engineering 1–2 years FT; M 2–3 years PT

This group studies techniques to improve water quality measurement estimates and permit more efficient estimation of pollution inputs. Water quality models of both Sydney Harbour/ Parramatta River and the Hawkesbury River systems have been developed to enable prediction on pollution levels, salinity and water quality to be made. Extension to other systems can be expected to contribute greatly to environmental studies.

Land economy: G Dip 2 years FT, or 3–4 years PT; M 2 years FT, or 3–4 years PT.

Public health: M Arts, options in occupational health, public health and tropical health, degree open to both non-medical and medical university graduates.

Town and country planning: G Dip FT or PT; M 2 years FT or 2 years PT plus 1 year FT.

Tasmanian CAE
Olinda Grove
Mt Nelson Tas 7007

Environmental design: B Arts 3 years FT.

Natural resources: Dip Applied Science 3 years FT or PT equivalent; G Dip 1 year FT or PT equivalent.

Urban planning: G Dip 3 years PT after B Arts Environmental Design or equivalent.

Tasmania University
GPO Box 252C
Hobart Tas 7001

Environmental studies: M 2 years FT or PT equivalent, interdisciplinary, open to graduates of any faculty, by coursework or thesis

Genuinely attempts to achieve an integration of various disciplinary contributions. In other words a holistic perspective is fostered and students are encouraged to take a multi-disciplinary approach to their work. Students are encouraged to think about and justify the inevitable value judgements that seem to have to be made about environmental issues and problems. Also, students can choose environmental topics for their essays, projects and finally their thesis, which interest them personally, and are not forced to work on specific topics chosen by their course advisors. (Quote from letter by Phil Tighe and Ros Taplin).

PhD 2–4 years FT or PT equivalent from M Environmental Studies or equivalent, by thesis after advanced study and research.

Victoria College
221 Burwood Highway
Burwood Vic 3125

Environment assessment and land use policy: B Applied Science, new course to be offered in 1984 subject to accreditation.

Environmental education: G Dip in Resource Conservation Studies 2 years PT

Designed chiefly for would be teachers, however, the course does cover a lot of academic work and allows students to go into jobs in environment related areas.

Western Australian Institute of Technology
Kent St
Bentley WA 6102

Environmental health: Major in B Applied Science 3 years



FT or PE equivalent; M Applied Science 2 years FT or PT equivalent.

Environmental health provides an interesting and satisfying career for persons with a concern for the quality of life and the protection of the public from potentially harmful practices. Public concern regarding the quality of the environment has resulted in a marked interest in professionally trained personnel who are required to plan and implement prevention and control programs. Within the broad field of health it is the concern of the specialised teams to measure and control those problems in the community which are associated with environmental hazards. Historically, prevention and control measures were once confined to infectious diseases and constituted the major aspect of environmental health. The same concern has now been extended to chemical and biological problems associated with air, land and water. Modern technological advances have created a need for investigation into the effects of trace amounts of toxic substances in the environment, the implications of which still require elucidation. The work and responsibility of a graduate may differ from one employer to another. Duties may vary from health hazards associated with buildings, food or noise, to the design of waste disposal systems and the interpretation of impact statements for local authorities. In addition, the graduate may act in an advisory capacity to other professions and the public in regard to methods of achieving acceptable health standards.

Natural resources: G Dip 1 year FT or PT equivalent

The increasing impact of humans upon their physical and biological environment in recent years, and the rapid depletion of many of our natural resources, has led to an increased awareness of environmental problems. At the same time, it has become apparent that the initial training of many people who help to formulate environmental management policies has not equipped them adequately to perform this task. The general aims of the program are to combine a common core of basic knowledge in resource management with practical applications of that knowledge in diverse professional fields. The course endeavours to develop those skills which will broaden and strengthen the students' competence in areas relating to the environment and to the management and development of natural resources. Emphasis is given to the inter-disciplinary nature of most real life environmental problems, and analysis of local problems within this context will be encouraged. In addition to completing substantial amounts of course work, students will be involved with research tasks and will be expected to display initiative and resourcefulness, flexibility in thinking and approach, and the tenacity in completing the work to the satisfaction of themselves and the supervisory staff.

Occupational health and safety: 1 year FT or PT equivalent or E equivalent.

Urban and regional planning: B Arts 3 years FT or PT equivalent; G Dip 1 year FT or PT equivalent; M Arts 1 year FT or PT equivalent.

Western Australia University
Nedlands WA 6009

Natural resource management: M Science 1 year FT or PT equivalent from Hons or 2 years FT or PT equivalent from B, by coursework and dissertation

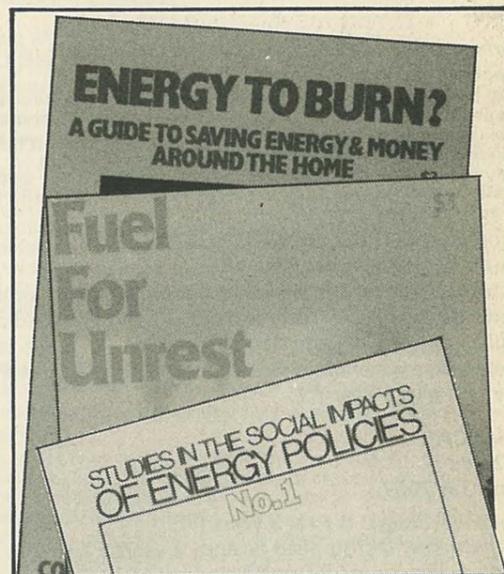
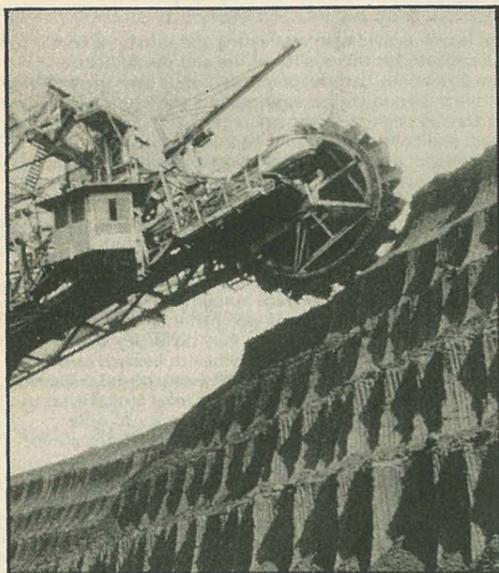
Students in this course have complained bitterly at the lack of interest shown by the course co-ordinators in the structuring of the course and the work done by the students. (Quote from letter by Phil Tighe and Ros Taplin)

Wollongong University
PO Box 1144
Wollongong NSW 2500

Environmental education: G Dip PT

The course includes basic studies in management of living and non-living resources, controversial issues, and the social and philosophical framework within which environmentalists work. Lectures in environmental science are complemented by a strand of practical field studies. This graduate diploma course provides teachers with the background necessary to develop the potential for environmental studies that lie in the existing curricula.

Energy policy



Environmental activists now have a ready set of alternative energy policies to project when involved in a struggle such as the Franklin dam scheme. But how well thought out are these policies, and will they ever be implemented?

In this article, Don Siemon looks at the progress made by the Victorian Labor government in the area of energy policy, and the formidable barriers that remain in achieving the full realisation of the environment movement's strategies.

Energy has a central place in the world view of the environment movement. Energy analyses allow a more fundamental accounting of our actions than economics. Thermodynamic as well as ecological laws dictate the absolute limits to the exploitation of our planet.

The nuclear industry risks global catastrophe in its search for power. Fossil fuels threaten the carbon dioxide balance. Major energy projects disturb wilderness areas, local environments or established communities. The corpor-

Don Siemon has been working with the Sunday Ebbott Energy Project of the Australian Conservation Foundation.

ations which control energy are the largest and perhaps the most influential of all.

In confronting these issues, intellectually and politically, environmentalists have evolved a distinctive approach to energy policy. It has a clear long-term aim: sustainability. Renewable sources of energy must become paramount. Otherwise we simply squander our precious capital of fossil fuels, fuels needed by other nations and future generations.

However, renewable sources can only make an impact if total demand for energy is held down through conservation programs which go far beyond present efforts. New technologies, changes to the way we meet our needs (notably for transport), and changes to personal attitudes all have their place in a sustainable energy strategy. (Not all technologies are suitable just because they are renewable, however. Minimal environmental impact is also a component of sustainability.)

The environment movement, seeking to avoid unnecessary future conflict and conscious of its negative media image, has sought to inject these ideas into government and corporate thinking. It has advanced its arguments not only at times of crisis but in quiet, considered contributions to conferences, hearings, and publications.

Reflecting the diversity of the environment movement, perhaps, four

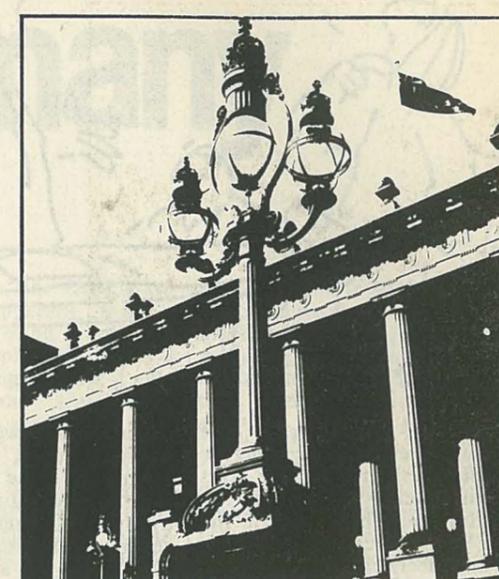
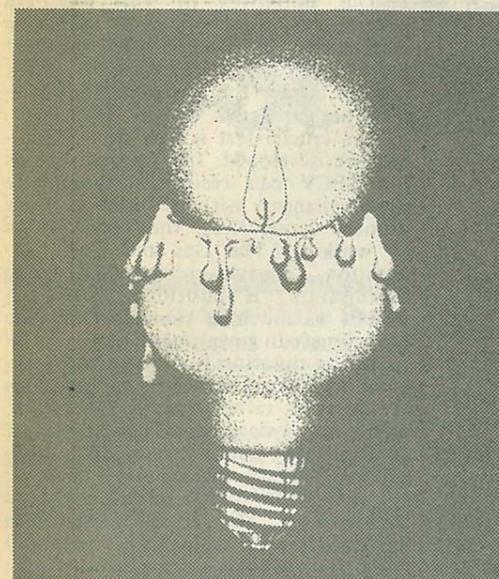
major themes of argument have emerged:

- The first stresses political risks: the anti-democratic tendencies of the nuclear path, the dangers of terrorism, the fragility and inflexibility of some centralised supply systems, the problems of energy dependence.
- The second stresses the inadequacy of present economic theory and current development ideology (which views Australia's future as based on direct or indirect energy exports). The explicit 'conservator society' position now developing has a strong energy component.
- The third theme is less visionary: more efficient energy use makes simple economic sense. Saving energy is a better investment than producing more.
- In the final theme, the positive social benefits of a 'soft' energy strategy are stressed. Simple, decentralised solar technologies can be tools of community creation and personal liberation.

Together, these arguments have considerable emotional and intellectual force. Support for them can be found across a surprisingly broad section of Australians, even amongst those who explicitly reject the environment movement. Will this vague popular enthusiasm become manifest in policy changes?

Certainly some of more obvious political and technocratic elements have been picked up, spurred more by OPEC action than by conservationist pressure,

without power



however. Departments of Energy replaced Departments of Fuel and Power . . . the professional body, the Institute of Fuel, became the Institute of Energy.

Underneath the name changes, however, not all that much has changed. This is not because the ideas themselves are fundamentally misguided, the opportunistic inventions of mischievous greenies. It is because the arguments are only beginning to be developed sufficiently to address the objections of the 'energy establishment' and to have some credibility with policy makers.

Environment organisations, understandably, have been reluctant to become absorbed in this sort of detail with so many pressing issues to face. There is a risk, however, in just standing back and tossing good ideas into the ring: the movement is forever outside the locus of real influence. It is essential that the environment movement not only toss up ideas, but that it tests them out.

Conservationists have always been keen on solar water heating, for instance. It is only recently, however, that systematic study of its industrial, employment and economic potential in Victoria has been carried out. This work, by Environmentalists for Full Employment, has been taken up immediately by the Victorian Solar Energy Council as the basis of five major policy studies.

Other organisations to take up the challenge of developing policy have been the Australian Conservation Foundation which allocated some \$45 000 of bequest funds for an alternative energy project in Victoria over 1981-83, the Total Environment Centre in Sydney with its Solar Access Study, and the Conservation Council of Victoria (CCV). The CCV has had a specialist Conservation of Urban Energy group working for several years, and is now seeking funds for its ongoing energy program.

With the efforts of groups such as these (not just in Victoria) to grapple with implementation comes a greater awareness of the barriers to any alternative energy strategy. These are formidable. They will require a major organisational effort to be overcome.

Perhaps the most difficult task will be to develop workable programs in sufficient detail. Energy conservation is often regarded as just too difficult to implement: sure, there are savings, but what a lot of effort! Building power stations looks simple by comparison.

Then there are the interests of those who today dominate the energy system. How can even mild changes be made to the agendas of powerful institutions: supply authorities, oil and automotive companies (which form, we must realise, the basis for a good slab of Australian industry), appliance manufacturers, professional bodies . . . not to mention resource exporters?

Energy exports are not in themselves bad, of course, but they do provide a major stumbling block to public acceptance of any alternative energy strategy. No government education program to encourage energy saving can succeed when that same government is seen to be busily selling off our coal and uranium as fast as possible.

Regional as well as sectoral interests may be offended. Readers of *Chain Reaction* will be aware of how much local business in, say, Portland will have invested behind a major energy development. To the extent that an alternative energy strategy involves a greater role for the public sector - through serious planning (hardly a feature of Australian government to date), greater taxation, or public investment outside present boundaries - there will be a more unified class response by business.

These obstacles are impressive but not, in the end, insurmountable. They require systematic thought and action. Can we convince the public that our proposals are really advantageous? Until we can, there is no chance of a new energy strategy finding political support.

These questions are being confronted in Victoria at the moment, as the Labor government grapples both with a depressed economy and a legacy of mismanagement. Thanks to the work done by many people over many years, the Cain government is at least willing to listen to the ideas of community critics. Issues that were ignored or



played down by the Liberals have received serious attention: the structure of gas and electricity tariffs, the Portland aluminium smelter, the organisation of the utilities, and the needs of the Latrobe Valley (source of Victoria's brown coal and electricity).

The reports and statements which have come from the government scarcely represent a conscious alternative energy strategy however. They are simply the honouring of election promises. Electricity shortages, unpopular tariff increases and the Alcoa bungle were all factors in the Liberal defeat of April 1982. Thus, although some business media have portrayed the government as heavily influenced by the environment movement, the reality is very different. Deafened by their own election rhetoric about 'sound financial management', the ears of key decision-makers (the Department of Management and Budget, the Department of Economic Development, and others) remain closed to all but the melody of rapid brown coal exploitation.

This preoccupation threatens to lock Victoria out of conservation and renewables and into even more public investment in risky coal development. The attitude is encouraged by hangers-on from the previous administration. The Victorian Brown Coal Council recently released its \$1 million study into coal development options. Its perspective? That the 'consumption of brown coal should be encouraged'. Planning requirements for a diversion of the Morwell River and for a huge overburden dump are still being considered, even though hearings on the Driffield power station proposal, from which they emanated, are in abeyance. (Electricity demand is currently falling, and even the State Electricity Commission (SECV) forecasts are well below those claimed

when Driffield was first put up.)

Nevertheless, there are real signs of progress in some areas. The Cain government has swung more funds into public transport (though the freeway lobby continues to score minor victories). The SECV has a new charter and new faces on its board. The new Metropolitan Planning Scheme, which will determine such things as the amount of outward urban sprawl and car-based shopping centre development, is being reviewed. The Minister for Minerals and Energy has set up a Victorian Energy Plan unit to carry out long range policy studies. These promise to allow the government — for the first time — to properly coordinate and review the plans of the utilities. They could also allow the rational development of conservation and fuel substitution programs.

The CCV, which has submitted many critiques of energy policy to government over the years, is producing its own position paper on the Plan, and is contacting a wide range of community groups to get their views on the way in which energy planning should proceed. In this way, the CCV hopes to be able to build interest in the Plan and encourage the Department of Minerals and Energy to include social and environmental considerations in its planning process.

The Department has also set up two major conservation programs. Neither of these has had direct input from community groups. The Government Energy Management Program is an in-house energy conservation effort. The Home Energy Advice Service (HEAS) was set up to assist low-income households to save on their fuel bills; funds are available for suitable home improvements.

The HEAS could well look to a

locally-based job creation scheme, the Brunswick Home Energy Improvement Project, for some direction. Like the HEAS, this is aimed at low-income households with large electricity accounts, but it also involves training unemployed people in skills of energy auditing, insulation, weatherstripping, and minor building modifications.

The initiatives of the Victorian government, some of which are being matched by other states, are important first steps towards the sort of energy policies which the environment movement has generated.

The crucial test is how these initiatives are developed. Institutions such as the SECV can readily accommodate small changes without altering their primary imperatives, their basic ways of working. The Gas and Fuel Corporation, always a more dynamic organisation, is positioning itself to benefit as much as possible from the new climate in government.

The temptation for the Cain government will be to leave its new programs at the edge, rather than at the centre, of the energy stage once it has established control and met its immediate obligations. This would be a major error. If, as one ACF study suggests, energy conservation and fuel substitution measures could realistically 'produce' twice the useful energy output of the 4000 MW Loy Yang power station (and give a better return on funds), there is a solid case for substantial funds to go into conservation.

Conservation and other initiatives will remain marginal, however, if energy supply schemes such as Loy Yang are not critically examined, and future investments not put off. This, in turn, requires a firm community commitment to new investments... to jobs from conservation instead of jobs from energy.

The environment movement has begun the essential task of demonstrating to the Australian public that such programs are possible. It is essential that this continue. We need to speak the language of decision makers, but we cannot confine our efforts to this audience, ignoring the breadth and depth of the energy policy package which has emerged. To do so would be to limit our impact to a few minor technical and management reforms.

It is no advantage to anyone to have more efficient, more accountable institutions which are still proceeding in the wrong direction. With the election of so many ALP governments, the opportunities are great. And the risks of not seizing these opportunities are enormous. Pro-nuclear forces have gained enormously in political sophistication over recent years, precisely at the time that anti-uranium organisations have lost momentum. The environment movement does have a convincing nuclear-free path to offer; it must make sure that its offer is accepted.

Springtime in West Germany

The electoral success of the Green Party has attracted widespread interest. Ally Fricker reports from West Germany:

At the time of writing (May 1983) I have been living in the city of Cologne for five months, but unfortunately I do not speak German and this has of course restricted very much my ability to collect information first-hand. It results in my feeling that my impressions are superficial when I cannot understand the media or what is said at meetings. I would like people to take this into account when reading the article.

Much of the information in this article came from a lengthy discussion with two members of the Cologne branch of Die Grunen and with much help from members of my household with translations. I would like to say thank you to everyone who helped me, but especially to Berti, Sarel and Karl.

On 6 March 1983 Die Grunen (The Greens) polled 5.6% of the vote in the Western German federal elections. The electoral system is a proportional one, and this vote gave the Greens 27 deputies in the Bundestag. The orthodox parties wrangled about the new seating arrangements in the House, all desperate to eschew the newcomers, who arrived in jeans and jumpers, draped the parliament with banners and decorated it with flowers and declared to their supporters, in their 'opening' demonstration outside the parliament, 'We will never betray you'.

Before travelling to West Germany, Ally Fricker worked as an organiser with Friends of the Earth (Port Pirie).

In these early days, the Greens are more a political happening than a political party. They bring together a diverse range of people, groups and ideologies and are trying to weld a new philosophy from many and varied tenets. There is intense debate both within and outside the Greens, a fluidity of ideas, a candidness of expression and an imagination in their political practice which, in the political forums, is like the breath of fresh air that they are so dedicated to achieving in the wider world.

In the weeks following the election there rarely is a day when the Green parliamentarians are not in the media. They have supported demonstrations on a wide range of issues; demanded an inquiry into the financing of other political parties by the industrialist and armament profiteer, Flick; supported the rights of Turkish and other foreign workers; shocked the House with a frank address on sexual abuse in marriage; and demanded vegetarian and wholesome food in the parliamentary restaurant. If little else has changed there is some relief from the dullness and arrogance which usually characterises the German Bundestag.

GROWTH OF THE GREENS

So where and when did the Greens begin? In early 1979, in Frankfurt-Sindlingen, approximately 500 delegates from a variety of environment and other citizen action groups met and formed an organization called the Further Political Association of Die Grunen. The same year they contested the European elections and gained 3.2% of the vote or approximately 900 000 votes. Following the European elections the Further Political Association of Die Grunen moved to widen its base, and discussions began with alternative and socialist groups in Hamburg, Berlin and various towns in the states of Hesse and Northrhine-Westphalen. These meetings set up a constitutional commission which worked during the remaining months of 1979 to prepare a program and con-

stitution for a federal party.

In January 1980 at Karlsruhe, at a meeting of 1004 delegates, the federal party Die Grunen was founded, and at a further meeting of delegates in March of that year, the federal program was adopted. The new party contested the federal elections in 1980 and received 1.5% of the vote. Electorally, Die Grunen did not appear out of a vacuum. There were, and still are, many other electoral lists and small parties from the left and social, environment, anti-militarist and anarchist movements. Some of these organisations and electoral lists had already contested elections at the community, regional and state levels and had gained representation in some states.

(There are ten states in West Germany as well as the city of West Berlin, which lies within the territory of East Germany and does not have full status of a state. The proportional representational system exists at all levels of government.)

In some areas Die Grunen does not contest elections because an existing group with a similar platform has established itself. Sometimes there is some friction between the various alternative groupings, for example in Berlin, where there has been problems between the Greens and the Alternative List.

The first electoral successes for the Greens were in the city-state of Bremen, in the north of Germany, and in the state of Baden Wurttemberg. The latter is particularly interesting because it was in the normally ultraconservative, rural south-west of Germany. However it is also the centre of one of Germany's most prolonged anti-nuclear campaigns, against a proposed nuclear power plant in Wyl. In this fight the anti-nuclear movement has been successful in forming an alliance between groups in the community who are usually quite disparate, for example between conservative wine growers, university students and environmentalists.

When a widely based movement, enjoying local support, emerges around

an environmental or anti-militarist issue, then the Greens will almost certainly poll very well. In some local elections Die Grunen and other alternative and environmental lists have polled 10-15% of the vote and occasionally they have reached as high as 25%. Where they have gained representation in local or state bodies they have sometimes voted in coalition with the Social Democrats.

In the late 1970s the politics of the Social Democrats had become bankrupt after a decade in power. Their policies were increasingly irrelevant to both the worsening environmental degradation and the economic problems created by the worldwide recession. The smaller parties to the left of the Social Democrats, some of which had grown from the social movements of the 60s and 70s, and had formed around the more classical social and economic questions, were finding it increasingly difficult to gain support. People from this left-wing oppositional movement have been important in the Greens since their foundation.

The influence of socialist and communist ideology has perhaps been most noticeable in the north of Germany, in the states of Schleswig-Holstein and Lower-Saxony and in the city-state of Hamburg. One left group quite frequently mentioned in that area is the 'Z' faction of the Maoist party, the Kommunistebund (Communist Federation). This small party widened its concern to include environmental and ecological problems and now has an undogmatic position. Two or three other very small China-line parties either dissolved and supported the Greens, or now align themselves quite closely. By far the largest input of left people to the Greens has come from the body of independent and undogmatic marxists and from the ranks of the Social Democrats and its youth organisation, the Young Socialists.

FUNDAMENTALISTS, CONSERVATIVES AND SOCIALISTS

Die Grunen is not a socialist party, but the socialist tendency within it is important. But it is only one tendency within a very heterogenous organisation. Berti Waddy, a member of the Greens in Cologne, said:

Some divide the Greens into 3, 4 or 5 factions - you can easily count 12, but you can't always draw sharp divisions between them. On some questions the lines between the different tendencies will blur and change. But I think you can mainly talk about the fundamentalist environmental position, socialists and the conservative, conservation-type environmentalists.

Another division in the party, between the pragmatists and those who take a much more hard-line or purist position, is related to practice. The more tactical questions do not fall neatly along

ideological lines and so situations exist where, say, the socialist group based around Hamburg is probably closer to the more conservative Greens of the south on matters of how to make politics.

The conservative forces in the Greens are those who come from the conservation, nature-preservation ranks of the environment movement. They are very aware of the damage being done to the ecosystem, but do not see the need to challenge in any way the fundamental structures of society. For these people the nuclear family is sacrosanct, they would typically be in favour of a free-enterprise system and might be anti-abortion. One of the leading exponents of the right within the Greens was an ex-member of the Christian Democrats, Germany's major conservative political party, Herbert Gruhl. After the congress of Die Crunen in 1981, at which the left were quite dominant, he left and founded a new party, taking with him some of the conservatives. This move by some of the right away from the Greens perhaps demonstrates that there is no longer a base for purely conservative environmental ideas within it.

The Hesse branch of the Greens is generally regarded as 'fundamentalist', which is another well-recognised tendency within the party. The following is an excerpt from their manifesto:

[Ecological politics] stands for the consideration of ecology in all fields of society. Instead of exploiting nature the declared aim of ecological politics is the working together in harmony of man [sic] with nature and the abolition of man's exploitation by man. This excludes any kind of exploitative and destructive economy. Therefore the Greens stand for a social and ecological sustainable economy.

Without a doubt the best-known advocate of the fundamentalist position in the Greens is the exiled East German, Rudolph Bahro. Bahro retains much of his marxist conviction, but says that classical marxism is no longer tenable and that marxists must come to a new understanding of the environmental crisis. The fundamentalist view considers that to achieve an ecological society the industrial one must be negated. It wants a total decentralisation with no centralised structures at all. Bahro argues for an end not only to the hierarchical division of labour but also to specialisation and the division between mental and manual workers. Another view held by this faction is that there should be no policy which relates to traditional Social Democratic policy and this means opposition to the welfare state.

The socialist position considers Bahro's ideas unrealistic. They consider than an environmentally sound society is compatible with a sophisticated technological one and argue that, with the abolition of the capitalist system and the introduction of a self-managed socialist society, the environmental degradation produced by the excesses of

the industrial system could be brought under control. Another member of the party with whom I spoke summed their position up this way: 'They want a socialist society, but one with a new dimension - a socialist, ecological society'.

It seems that the party has developed to a stage where those who are concerned solely with environmental problems are now out-numbered by those who also see the great importance of the social and economic base from which environmental problems derive. The realities of the economic crisis, particularly the urgency of massive unemployment, will no longer allow the existence of any political party which ignores them.

The Greens stress the inter-relatedness of many aspects of today's crisis, and their peace manifesto states, under the subheading, 'Ecological Policies ensure Freedom':

The principle that all life should be respected and valued - the protection of life and nature - is the basis of our political aims both for ecology and for peace. The industrial system of European civilization, in which man is exploiter and ruler of other men and enemy of nature, is leading the community further and further up a blind alley. Technical progress and the organisation of work are based on a dynamic growth that is alien to human life and in which the development of productive forces is not under our conscious control. For decades the modern so-called 'war machine' with its ever bigger self-destructive potential has been the motor and the most important sector of this form of technical progress.

THE PEACE MOVEMENT

Among the most important work of the Greens is their contribution to the European peace movement. Their peace platform was given high priority during the election campaign and continues to be a central theme in much of their work. The peace movement in West Germany is very decentralised and seems to consist of a multitude of small groups (Initiatives). Petra Kelly and ex-NATO general Gert Bastion are the best known members of the Greens prominent in the peace movement, but many rank-and-file members are active in their own local groups within and outside the party.

The Greens policy is based around a call for independence from the Eastern and Western blocs, disarmament and neutrality. It calls for: no production and stationing of the new missiles; dismantling of existing missiles, the creation of demilitarised (weapon-free) Eastern and Western Europe; a prohibition of nuclear, chemical and biological weapons; a worldwide movement towards general disarmament; and the prohibition of weapons sales and marketing.

Criticism of the USSR, especially its deployment of SS-20 missiles and its presence in Afghanistan, is strong, and

**DEMOKRATIE
BRAUCHT
LUFT ZUM
ATMEN.**



Die Grunen posters: 'Democracy needs air to breathe' (above); 'The Greens in the Bundestag (parliament)' (right).



equally strong is support for the peace movements of Eastern Europe. However, the left within the party is far more inclined to reject the neutral stance, claiming that the USA is fuelling the arms race much more than the Russians.

There are also those who fear that this preoccupation with disarmament will lead to an obscuring of ecological and social issues. One group which claims it has already been ignored is the anti-nuclear movement, who recently had an appeal for funding for broadsheet refused by the ecological fund of the party. They say that the peace movement is eclipsing the anti-nuclear movement, which is an interesting and disappointing phenomenon, because the link between all facets of the nuclear industry is well recognised in the Greens' literature.

WOMEN AND DIE GRUNEN

To get a feminist's opinion of the Greens, I spoke with a woman called Ginster who works in a women's bookshop and cafe. She has attended meetings of the Greens, but is not a member and is highly sceptical. She said:

I don't expect anything, but the debates in Bonn have improved. I voted for them. Before the federal election they came to the women's movement in an attempt to widen their base, but I think it is not easy for women to work with Green men. It might be a bit more subtle, but I sensed that men were not seriously listening to what the women were saying in their meetings.

Ginster considered that many of their policies relating to women and children did not go anywhere near far enough. It is very possible that women working in the Greens would agree, and several of the women deputies in Bonn have asked the women's movement to make them aware of their demands and ideas. The present conservative Christian Democratic government is trying to water down existing legislation on abortion and the Greens are dedicated to preventing this. However there is not a complete consensus on the issue of abortion in the Greens.

The Greens advocate payment for housework and child care, but according to Ginster there is no serious analysis of how the economy would have to be restructured to allow such a development. Speaking more generally, she said:

The principle of rank-and-file democracy, which is so important to the party, is in basic contradiction to parliamentarism and I'm afraid that the Greens will fall into the same structural rigidity of other male political parties.

Of the 27 Green Deputies in Bonn, ten are women. The women in the parliamentary group are dedicated to establishing a parliamentary committee to deal specifically with women's issues, and the women in the party generally wish to retain their autonomy within it.

In many, but not all, branches of the party, it is necessary for 50% of all delegates at all levels of the party to be women. However, this is not always achieved. On being questioned about how they felt about their first weeks of working in parliament, the ten women were unanimous about their difficulties and fears of coping with the 'greyness, impersonality, rigidity and arrogance of the patriarchal structures'. Many of them were worried about the time spent away from their children and loved ones and their separation from the extra-parliamentary movements from which they came.

BASIS DEMOCRACY

The underlying principle on which the Greens have, and still are developing their party structure is rank-and-file democracy, or what the Germans call 'basis democracy'. On the fundamental importance of this principle there is no disagreement. But how to practise it has become the most taxing of all questions. As Fischer, one of the green deputies, put it: 'The rank-and-file democracy is a green hell more dangerous than the jungles of the Amazon.'

The party is trying very hard to prevent the creation of its own bureaucratic structures, but there is such a fear of authority and of professional politics that there is a danger that they will create the very structures that they most want to avoid. There is constant debate about exactly who the rank-and-file are, although it is agreed that every decision should be discussed by them and that decisions should be made by consensus. It is quite clear from the internal differences that this is by no means always possible. All meetings of the party are open, which confuses the question of who the rank-and-file are, as does the closeness of the party to the extra-parliamentary movement. All local branches of the party are largely autonomous and develop their own programs.

Any delegate or party representative who is elected to any level of the party can only hold her/his official position for a period of one term. This system should now also apply to the parliamentarians who are meant to stand down after two years. (The German Bundestag normally runs for a period of four years.) They would be replaced by another 27 candidates from the Green's electoral lists. This rotational system was agreed to before the elections, but now that the Greens have arrived in parliament there is a great deal of discussion about the 'workability' of such a proposal. It was hoped to avoid the creation of 'professional politicians', but many doubt that it is possible for their representatives to achieve expertise in the workings of the parliamentary machinery in only two years.

Yet another contentious issue is the 'imperative mandate' which means that delegates at all levels vote only as

instructed by the rank-and-file members. If this is carried to the absolute, as many insist it should be, it can produce rigidity and lack of debate at the different party levels. The intensity of debate within the party since the elections would seem to be at its greatest over the function of the parliamentary wing: how to control it, how to keep it responsive to the basis, how to rotate it, and how to prevent the enormous media coverage it now gets from clouding the importance of the rest of the party.

THE PARLIAMENTARY ROAD

Still another debate of great importance is whether the extra-parliamentary movement, from which the Greens emerged, should in fact be taking the parliamentary road at all. There are those who argue that the fundamental changes that are needed in our system cannot be achieved through the parliamentary system, but the Greens reply that the parliamentary activity is but one aspect of their work.

However, there is a very real danger that this could change because there are also people within the Greens who want to see the struggles around the social and environmental issues removed to the parliament 'where they should be fought'. Critics of the parliamentary way fear that the energy of the Greens will increasingly get taken up with power struggles and with trying to gain majorities while their demands get watered down. (The early weeks would seem to confirm this fear.)

The Greens may become less compatible with action-orientated groups because the party is increasingly attracting support from people who have nothing to do with the social movements. Extra-parliamentary actions in recent years have forced the ruling class to change their plans in a number of important areas - for example, in concessions to squatters, an end to the public swearing-in of soldiers, and a slowing down of the nuclear energy program. The Greens in parliament cannot achieve these things even though the quality of debate in the parliament has improved a thousandfold.

The ruling elites want political debate in the parliament where it is much more difficult to directly confront the power structures. Do the Greens then, by fighting in the parliamentary arena, strengthen the very power structures they wish to change and prolong the very crisis they wish to overcome? Some say, if nothing else, things cannot get worse with the Greens in parliament, and one can only welcome their refreshing and open approach to the tired old game of party politics. But if their approach shows signs of robbing the energy and imagination from the groups which spawned them, then a reappraisal of the parliamentary road is urgent.

The Wimmera wasting away

What at first seemed just a local victory for conservationists in north-west Victoria could lead to a review of sewerage disposal into waterways throughout the state. Peter Sayer reports on why the state government is worried.

On 6 July 1982 a historic decision was handed down by the Victorian Environment Protection Appeals Board in relation to sewerage pollution of the Wimmera River in western Victoria. The ruling came after Victoria's longest river pollution hearing, following 23 days of legal debate and 2 days of inspections. It stipulates that sewerage effluent discharges to the Wimmera River system at Horsham are to cease by the end of 1985.

The parties to the dispute were the Horsham Sewerage Authority (HSA), responsible for a population of 12 500, and the Dimboola Shire Council (DSC), representing three small communities downstream of Horsham with a combined population of approximately 4000. Working in liaison with the council was the Wimmera River (Dimboola) Conservation Group and the Dimboola Promotion Committee. These two groups are spearheading the struggle to stop the rapid deterioration of the magnificent Little Desert section of the river.

The effort to save the downstream Wimmera River also is part of the battle against an economic philosophy which seeks to centralise regional economies by giving priority to the needs of a provincial growth centre, in this case, Horsham. So far, the DSC has spent \$160 000 in this effort.

The Wimmera River's source is in the Pyrenees mountains of central Victoria and it flows north-west across the flat Wimmera plains. On passing through Horsham it turns north and flows along the edge of the Little Desert National Park and the eastern fringe of the Big Desert, filling Lake Hindmarsh, Victoria's largest natural freshwater lake, and Lake Albacutya.

'Peter Sayer' was born in Dimboola, and works in liaison with local conservation groups to try to arrest the deterioration of the Wimmera River.

The river terminates in the many lakes of Wyperfeld National Park. These lakes nowadays only receive a periodic input of water in successive wet years due to the water diversions upstream along the Wimmera and its tributaries by the Victorian State Rivers and Water Supply Commission (SRWSC). The commission has a policy of expanding these diversions in line with population and economic growth in the north-west corner of the state.

Before 1920 the Wyperfeld lakes regularly held water and the river then terminated at a large desert basin known as Wirrengren Plains. The most recent

And for the following four years, these untreated discharges continued due to 'malfunctioning' of the new plant. This pollution has been transported downstream by the intermittent flow of the river and deposited through its ecosystem.

The Appeals Board decision was based on the quality of effluent from the new Horsham sewerage works, after the SRWSC, which authorises sewerage development funds, had completed 'upgrading' of the works in mid-1979. However, the effluent was found to be still seriously polluting the Wimmera River with respect to nutrient input and oxygen depletion. The major



Eutrophic water conditions in the Wimmera River south of Dimboola, with emerging and decomposing water ribbon growths choking the river. (March 1982)

water flow into the Wyperfeld lakes occurred in 1975-76, but did not reach all of the lakes.

As well as the ecological disruption of this dry region by the reduced quantity of water flow, there is another evil relating to the quality of the water.

Also in 1975-76, 200 river kilometres upstream, the seeds of the Wimmera River sewerage pollution issue were sown. Horsham installed a new sewerage treatment works for the city. From the mid-1960s to 1975 the former treatment plant had frequently discharged untreated sewage into the river.

polluting nutrient is phosphorus from household and industrial detergents, which, through interaction with nitrogen from human wastes, has unleashed a rampant cycle of vegetation growths along the river downstream, particularly the common reed (*Phragmites australis*) and filamentous algae.

In August 1982 the HSA announced it would challenge the ruling in the Victorian Supreme Court, arguing that the Appeals Board has no power to completely withdraw a discharge licence. The SRWSC announced similar intentions but it subsequently back-tracked

and has opted to work behind the scenes in attempting to alter the ruling.

In early December 1982 the Victorian Conservation Minister, Mr Walker, 'set aside' the decision. In a press release to the Melbourne Age, Mr Walker claimed that the Appeals Board's decision was impractical because it was not empowered to consider economic factors in its decision. The HSA estimated it would cost \$3.5 million to establish alternative means of disposal to comply with the order. (At the beginning of 1982 the Environment Protection Authority (EPA) had estimated the cost at \$1.3 million. In July 1982 the HSA estimated \$2 million. At the appeal hearing the Dimboola Shire's engineering witness had outlined a land-based disposal scheme with \$770 000 capital cost. His evidence was dismissed as irrelevant.)

Mr Walker subsequently directed the EPA to prepare a state environment protection policy for the waters of the Wimmera River. In return the HSA withdrew its Supreme Court challenge. The calling for such a policy implies that the 1982 ruling is to be altered or relaxed. As Mr Walker explained to the Victorian parliament on 7 December 1982:

One must ensure that reason prevails with respect to the establishment of a suitable sewerage disposal unit for the town of Horsham . . . It would cost Horsham approximately \$4.5 million to install the land-based system necessary for that town . . . I hope that [the policy] will mean that properly treated effluent from a sewerage treatment plant in Horsham will be able to be taken to the waters of the Wimmera River.

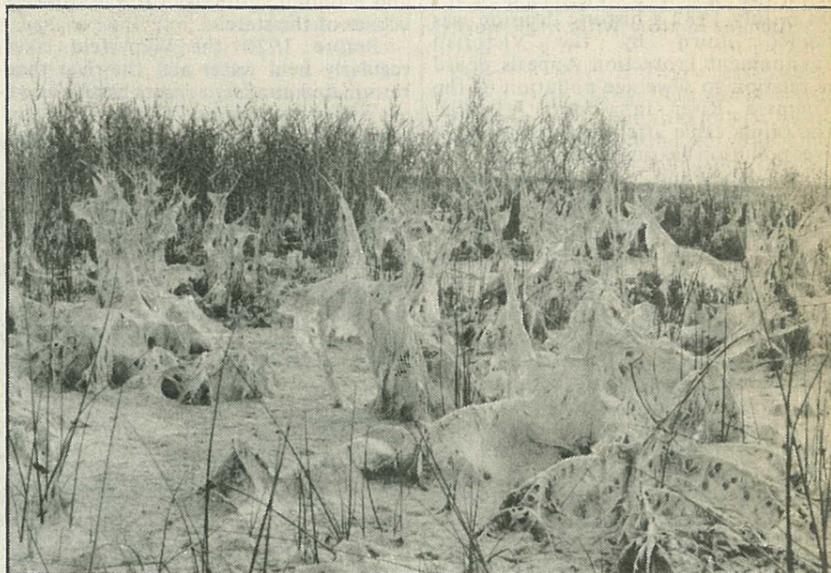
The state government and its bureaucracies do not simply fear the cost of \$3.5 or \$4.5 million required to implement a legal ruling in western Victoria, but the cost of the possible snowballing effect of the ruling. This victory for the conservation movement has the potential to spread into a wider review of sewerage discharges into all Victorian rivers. There would certainly be parallels for those rivers in other states similar to the Wimmera, such as the Diamantina River and Cooper's Creek. It is this 'domino' effect that has the Victorian government and the state's largest water polluter, the SRWSC, uneasy. The commission is undoubtedly concerned about all current and planned sewerage treatment installations which discharge into a waterway.

The 62-page finding of the Appeals Board decided that the quality standards used for decades by the SRWSC and currently used by the EPA for sewerage effluent discharges were very inappropriate for the waters of the Wimmera River with its spasmodic flow pattern. The DSC was also able to convince the Appeals Board that the monitoring of water quality and dissolved oxygen levels by the SRWSC and the EPA was based on English river conditions highly inapplicable to the Wimmera River. The

In the Wimmera River case it was revealed the HSA had been discharging into the river since 1926. The downstream communities were oblivious to this until the late 1970s. The downstream river is now being strangled by expanding vegetation growths, which subsequently decompose in non-flowing pools and deplete the water of oxygen.

Appeals Board also accepted that daily waste discharge should be assessed on its cumulative effects since the terminal lakes are landlocked. The EPA have always assessed discharges as though they were one-off occurrences.

One can only speculate about the fears of the state government, and the implications the ruling has for other sewerage authorities discharging into Victorian waterways, and also for sewerage authorities in other states, especially New South Wales which has an established environment protection charter.



Thick blankets of algae at the Wimmera's inlet to Lake Hindmarsh. The Common Reed in the background has invaded this formerly clear beach since 1976.

A 1974 report to the Albury/Wodonga Corporation and current information provided by the EPA reveal that eighteen major townships situated along the Murray River are discharging sewerage effluent into the river, and a further fourteen major Victorian towns discharge into its tributaries. The acceptance of the accumulation of nutrients principle for the Wimmera River has the potential to open up the issue of total sewerage discharge into the Murray.

The SRWSC favour these inputs of effluent as they are an integral component of its water management process. The commission isn't overconcerned with water quality, more with moving water from point A to point B. The recipient communities at point B are generally unaware that a proportion of

water that is drawn via the SRWSC channel is in fact diluted sewerage.

The SRWSC has been pressuring successive Victorian governments to build two substantial storages on the Wimmera River, which would mean the loss of the immensely attractive lakes Hindmarsh and Albacutya. The commission considers that it is wasted water when these two lakes are replenished by periodic flood flow. The commission has already secured most of the Wimmera River tributaries flow in established storages situated in the Grampians mountain region. It also diverts considerable volumes of water from the river upstream of Horsham to its channel complex.

It has emerged since the appeal decision that the major industrial town in the Wimmera region, Stawell, discharges its sewerage effluent into one of the Grampians storages from which water is transferred to the north central region of Victoria. The Appeals Board

L FRASER

had decided from evidence that the Wimmera River was already polluted with nutrient phosphorus before reaching Horsham. This recycling of sewerage effluent into domestic and recreational water supplies appears to be part and parcel of the SRWSC's water management policy for this and other regions of Victoria.

Action: The draft state environment protection policy on the Wimmera River is due to be released in late July or early August 1983 and will be subject to three months' public comment before the final policy is presented to government towards the end of 1983. For further information contact:

- Wimmera River (Dimboola) Conservation Group, Box 94, Dimboola, Vic 3414.
- Dimboola Promotion Committee, c/- Keith Jones, 52 Lloyd St, Dimboola, Vic 3414. Tel: (053) 89 1644.

REVIEWS

Films

The Voyage of the Pacific Peacemaker, directed by David Roberts, 16 mm, colour. Available from Nogtown, Tel: (02) 949 5139.

Reviewed by Martha Ansara

What is the difference between a nuclear issue film made from within the movement to a nuclear issue film made from outside the movement? The film from outside frightens us with the facts and ends in a dire warning while the film from within the movement, after frightening us with the facts, also ends in a dire warning. And then exhorts us to 'Do something right now!' Even films which purport to be funny (like *Dr Strangelove*) tend to be pretty grim and offer up little hope.

Well, at long last a film has been made which doesn't deal in the usual gloom and doom: *The Voyage of Pacific Peacemaker*. It follows the Australian boat, *Pacific Peacemaker*, from its origins as a wild idea in Lismore, New South Wales, through to its naming ceremony at the Sydney Opera house, out under the Harbour Bridge at the end of 1981, and across the Pacific to the Seattle blockade of the Trident submarine. En route we see some very lovely Pacific islands where some not very lovely facts and events lurk beneath false images of paradise. And we learn about the effects of colonialism and nuclearisation of the Pacific, the boat is boarded by police at the Waitangi Day protests in New Zealand, rammed by the French at Mururoa Atoll five days after an underground test, and arrested at submarine-gun point by the coastguard as the largest and most lethal submarine in history glides home through the waters of Puget Sound, Seattle, USA. There is plenty of information and plenty of excitement.

But while *The Voyage of Pacific Peacemaker* appears on the surface to be a typical adventure film with a political twist (*World Safari* meets *Dark Circle*), its appeal really lies in its love of life and its joy in living. The human picture it presents is a persistent message of hope, running as an undercurrent through small everyday details and peaceful images.



From the film *The Voyage of the Pacific Peacemaker*.

One special and encouraging aspect of the film is its quiet and clear presentation of women crew members as the activists they are. Two of the most impressive characters in the film are Win Olive who at 63 seems to be saying with every appearance that being a peace activist was meant to be easy; and Gai Longmuir who joins the crew from a buddhist commune and explains many of the issues of the protest voyage. Navigator, Lorraine Ethell, who discusses her participation in terms of concern for the future of the world's children, brings her own children on the voyage with her, but is portrayed by the film as a person of many skills along with motherhood.

The one serious flaw is the lack of emphasis on any of the crew who were from Pacific islands, particularly Nover Haruo from the gravely threatened Micronesian republic of Belau. While the film cannot be expected to deal

thoroughly with every issue, I also would have liked to have seen greater emphasis on the connection between the Trident submarine, with its first-strike capability, and its command and control facilities located at USA installations in Australia. Because of the USA bases, the Trident now poses particular dangers and responsibilities for Australia. Nevertheless, the many other reasons behind the *Peacemaker's* protest are presented in a way which anyone can understand.

One element of particular interest in the film is the philosophical approaches of the project's participants. Differences among crew members emerge in the course of the voyage and things don't always go smoothly. The priorities and perceptions of the brickie (skipper Bill Ethell) differ from those of the 'hippie' (project-originator Ian Gaillard) and there is a temporary parting of ways. But all are back together again for the

REVIEWS

blockade of the submarine . . . I noted with some amusement how, when the coastguard boards *Pacific Peacemaker*, Bill has his hands up and a rifle trained on him while Ian, pushed to the deck, calmly continues playing his ukelele. Such are the diverse images we see of subversion and resistance!

The film was financed by scores of individuals and organisations active in the peace movement. To keep costs low, David Roberts photographed the film himself on Super-8. It was then transferred to video and from there to a regular 16mm print for theatrical release.

The Voyage of Pacific Peacemaker is a good introduction to nuclear free Pacific issues for those who are new to the peace movement and a refreshing boost for those who need no introduction.

Martha Ansara is a film-maker living in Sydney.

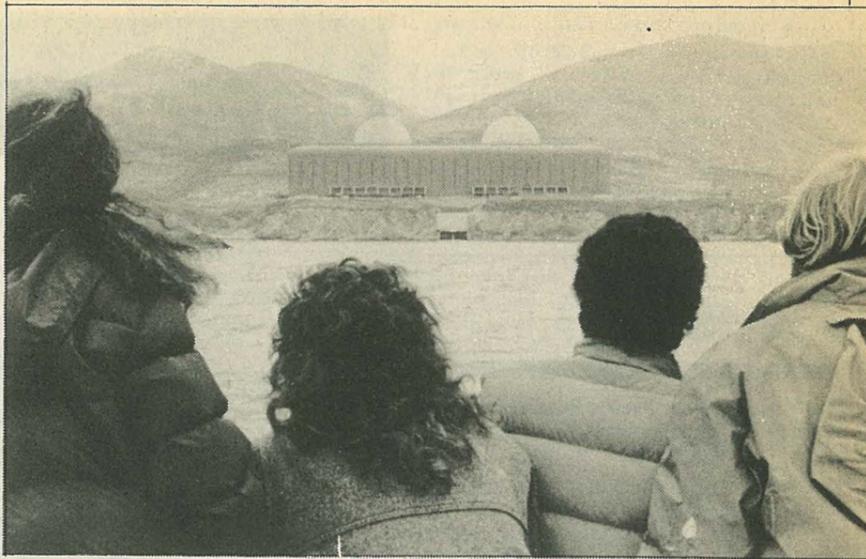
Dark Circle, produced and directed by Chris Beaver, Judy Irving and Ruth Landy, 16 mm, colour, 82 minutes. Available from Sydney Filmmakers Co-operative, Tel: (02) 33 0721.

Reviewed by Belinda Probert

At the centre of *Dark Circle* is the Rocky Flats nuclear weapons plant near Denver, USA, and the families that live close by. These families talk about their lives between clips of fascinating and chilling archival film of the production and testing of nuclear weapons. A young worker at the plant has a brain tumor, shockingly visible, and dies as the film is being made. A local builder talks about his daughter and the lump on her knee, and we know she is dead. A farmer describes the appalling deformities appearing in his stock.

Rocky Flats is contaminated with plutonium, the residue from the manufacture of hydrogen bombs — a substance of quite unbelievable toxicity which remains lethal for 250 000 years. And the other main focus of *Dark Circle* is the creation of plutonium as an inevitable by-product of nuclear power for electricity, and the inescapable connection between nuclear power and nuclear weapons.

The film seeks to emphasise the connections between the suffering of the survivors of Nagasaki, the suffering of USA veterans who took part in atomic tests, the family tragedies in Rocky Flats and the threat which



Diablo Canyon nuclear reactor, from the film *Dark Circle*.

nuclear power plants pose to local communities. This is the dark circle.

The people whose faces dominate the film are all, in some sense, victims. Their contradictory and complex responses are there for us, though insufficiently analysed — perhaps because of the limitations imposed by the format of archival material and interviews. There are the admirable women from around Diablo Canyon agitating and organising to stop a new nuclear power plant (which was finally halted, not long before its planned start-up date, because of the discovery of just the kind of human error in construction that its opponents insisted was inevitable.) There is the woman in Rocky Flats who knows how contaminated her backyard is, who is able to move away, to a personal solution, recognising that she is passing her backyard on to a family like her own. And there is perhaps the most pointed response of all, almost missed by the film, of the farmer who knows plutonium is maiming his animals, but who still believes that nuclear weapons must be made. (Would it be alright if they could be made without these terrible, poisonous leaks?)

What is completely missing from the film are the faces (and arguments) behind the nuclear power industry and the nuclear weapons industry. The people who make profits from nuclear power, who send USA servicemen into radioactive clouds, and who believe in nuclear defence remain invisible. And by being invisible, or hidden behind familiar corporate symbols, they remain elusive. Why do so many propagandist films assume that it is not necessary to engage with the 'enemy'. It's as though the makers of such films assume that they will only be watched by the converted, and it only adds to the

viewer's sense of being isolated and embattled.

The film does at least try to connect the suffering of families in Rocky Flats with the horror of nuclear weapons. It does this best by talking to the victims of Nagasaki and Hiroshima. It also does this, in a very heavy-handed way, through the device of trying to pull the story together around the life of its narrator (and director), Judy Irving. She was born at the dawn of the atomic age, grew up learning to 'duck and cover' at the sound of the siren, and finally began to question the benefits of the nuclear industry when she discovered the extent of its threat to human lives. But we never see her face, and therefore do not really care for her. In fact her voice is, in the end, irritating in its gentle insistence.

Dark Circle is informative and revealing. It is also deeply touching at certain moments (almost despite itself) and earnest. What would be interesting is the response of the non-committed. Might they simply want to see the safer production of nuclear weapons?

Belinda Probert teaches sociology at Monash University and is an active member of People for Nuclear Disarmament.

A Voice for the Wilderness, directed by Chris Wilcox and Michael Balson, 16 mm and video, colour and black & white, 50 minutes. Available from Sydney Filmmakers Co-operative, Tel: (02) 33 0721.

Reviewed by Jenny Quealy

A Voice for the Wilderness tells the story of the plight of rainforests worldwide, concentrating on the rapid changes that have occurred on the New

South Wales coast over the last 200 years of white settlement. The film documents change in the rainforest ecosystem over thousands of years, and in the relationship of humankind to that ecosystem in a fraction of that time.

The rainforest of Hastings Valley is shown, over a period of time, being destroyed by the removal of trees, leading to the disappearance of plant and animal species. Shown is all the beauty of the rainforest. Shown, also, are snig tracks, tree felling, and the on-site battles between the loggers and 'greenies'.

The film is an historical overview, from early European pioneer settlement to 1982. The film covers aspects of the changes in social thought that have given rise to a new social movement. The film proudly states the half a million membership of environment groups in Australia, and concludes that conservation is a new form of nationalism.

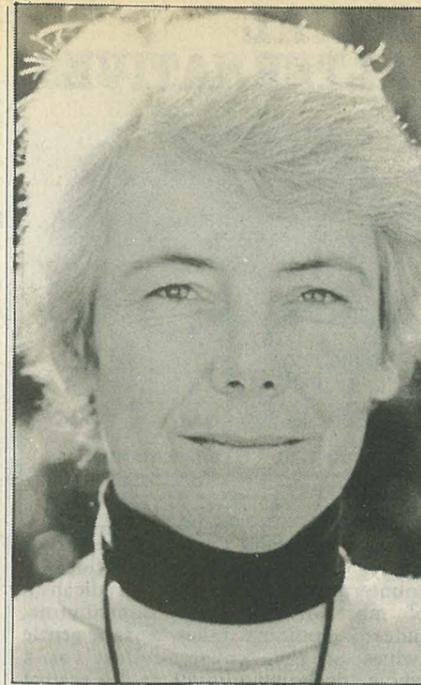
Captured on film are many of the participants of the so called 'Battle of the Hastings'. There is an explanation of Aboriginal culture in relation to the forests ecosystem, and of how tribal life in the area was eroded with the coming of the 'timber-getters'. There is archival footage, both humorous and saddening, of pioneer loggers, and interviews with today's loggers, in the forests and in the pubs.

There is one logger who understands the issues, and realises that propaganda against the environmentalists is propagated by the timber industry. There are other loggers from families with a history in logging who believe the claims of the timber industry, who are irate at the interference of government and city folk — the 'greenies'.

The battle of the Hastings we are told was one of words; words at industry-organised, anti-conservation rallies, words in the Land and Environment Court, words in the NSW government's Rainforest Cabinet Committee. This battle was one bogged down by antagonism, and clouding of the issues. All sides had public relations campaigns in full swing, with glossy pamphlets displaying their particular ideology.

One serious omission was the lack of any Forestry Commission or timber industry spokespeople. They were major participants in the battle. There has consistently been more than one voice for the wilderness — the Forestry Commission and the timber industry feel they have valid reasons for their own brands of wilderness 'management' and are very noisy about it. Their omission will only antagonise them further, and lead to claims that the film is obviously biased. The Rainforest Cabinet Committee was also not covered in nearly enough detail.

The archival footage, like film of conservationists and workers involved



Chris Wilcox, producer of *A Voice for the Wilderness*.

today, lacks evidence of those who have (and traditionally hold) the power in such cases . . . government and industry structures. There was plenty of talk about these two parties, by those covered in the film, but that was inadequate.

The state government was made sufficiently aware of the importance of coming to a rational and well argued decision about all of NSW's rainforests, because of a concerted effort of environmentalists statewide, with the National Parks and Wildlife Service, Fortech and the Department of Environment and Planning. I felt these links should have featured more.

The film ends with conservationists from the Hastings area pointing out the need for a change in ethics, in relation to our total environment as well as rainforests. The message is that we need to recognise how important the rainforests are, and that our relationship with them should be a rational, thoughtful use and care of such a valuable resource.

The film is not overtly political, like many of the people featured. The film prods the social conscience of us all.

The 'jobs and rainforest' issue was covered; the beauty of the rainforest was adequately and well portrayed, as was the growth of (part) of a conservation movement in Australia. The film's coverage of the change in perception over the two hundred years of white settlement is of great value in portraying an issue which has a huge following in Australia.

A fitting postscript to the film was the announcement of the rainforest decision of early 1983, (see *Chain Reaction* 31), over footage of a lyre bird of the rainforest involved in a mating dance. This display is a highlight of the film and a rare sight for most of us. The film is a visual delight and should be enjoyed by all except those in the timber industry.

Jenny Quealy is a member of the Chain Reaction Sydney collective and has worked on forestry issues for several years.

Periodicals

Social Alternatives: Peace And Disarmament October 1982, **Peace and Transarmament** March 1983. Published by The Editors, Social Alternatives, Department of External Studies, University of Queensland, St Lucia, Qld 4067.

Reviewed by Peter Lawler

The evolution of a wide network of groups and individuals concerned with the social issues and crises confronting humanity has also stimulated the production of a wide range of journals and magazines devoted to the consideration of alternatives to existing structures, processes and attitudes. *Social Alternatives* is one such product, reflecting the characteristics of an academic journal and popular magazine.

Two recent issues were devoted to 'the question of war and peace in our time', reflecting the evident growth of public concern and uncertainty. The numerous articles demonstrate the wide range of issues and the divergent opinions contained within the peace movement. The contributors are mostly academics, but also include a number of prominent activists from the USA and Australia. The articles fall roughly into two groups: academic analyses of such things as the mechanics of the arms race, the evolution of various national peace movements and alternative, non-violent defence strategies, or, more exhortatory calls for the creation of a more critical public consciousness, the articulation of new values and strategies for mobilising the peace movement more effectively.

Articles of the first category include a discussion of alternative forms of non-violent defence by Gene Sharp, a leading contributor to the literature on non-violent social action. Sharp recognises the need for ultimate sanctions in any society, domestic or international. He argues that the issues involved in international conflicts are serious and often irreconcilable without some form of conflict. Aggression and domination constitute real dangers for

REVIEWS

SOCIAL ALTERNATIVES

VOLUME 3, NO. 2, MARCH 1983
recommended price \$3.25



Peace and Transarmament

Come Sharp Investigating New Options in Conflict and Defence: This Issue: The Civil Liberties Campaign in Queensland; Denis and Barry Pincus: Building an Alternative to the War System; Geoff Lacey: Technology and the Nuclear Arms Race; Hans Rindler-Schjerve: Discussion with Kenneth Boulding (Part 2); G. Hancock: The Irrelevance of Conventional Economics; Poems by Judith Wright, Mark Roberts, Connie Barber

many states and have to be resisted in some form. Sharp outlines possible strategies of non-violent resistance which have proven historically effective. These include non-cooperation, civil disobedience, diplomatic and economic boycotts and even non-violent invasions. (Unfortunately, he does not provide an example of the latter). Sharp is critical of those in the peace movement who fail to adequately consider methods of dealing with issues which are not amenable to compromise.

A number of the articles also provide useful historical background to the evolution of peace movements in countries as diverse as New Zealand and Japan. In addition, Gary Smith gives an incisive account of the evolution of the ANZUS alliance from a 'minimal formal arrangement' to 'a tactical and strategic nuclear alliance', and in so doing provides an invaluable backdrop to the current efforts of the Minister for Foreign Affairs, Bill Hayden, to have the ramifications of the alliance spelt out more clearly. Bob Howard's concise piece on the evolution of the strategic arms race usefully emphasises the relationship between technological innovation and changing strategic doctrine, and suggests that these dynamic elements of the arms race place considerable strain on efforts to establish even minimal levels of arms control.

The second category of articles are of a more philosophical, eclectic and prescriptive form. They examine the cultural and psychological bases of militarism and raise questions about how we think about war (or choose not to think about it) and how and what we teach our children about war and peace. Many of the articles contain specific proposals and strategies for effecting radical changes in public consciousness and establishing an effective counter-dynamic to the war-system and militarism. Robin Burns, for example, examines the fragmentation of knowledge into discrete areas and the consequent limitations upon effective communication. Along with Senator Susan Ryan's article on women in the disarmament movement, Burns' article critically examines the relationship between militarism and masculinity.

Linking the two issues is a lengthy interview with Kenneth Boulding, an American economics and peace researcher. Occasionally glib, it is nevertheless a provocative and illuminating interview. Boulding's preference for

a peace movement that is 'conservative, stuffy and respectable' provides a counterpoint to the evident radicalism of most of the other contributors. Indeed, Boulding takes a few gentle swipes at the 'counter-culture' as a whole, declaring himself to be against what he terms 'nature worship' and casting some doubts upon the effectiveness of alternative movements so far.

For those looking for rapid insight into the issues confronting the peace movement and an overview of the responses they generate, these two issues of *Social Alternatives* will prove useful and absorbing reading. However, though many of the more analytical and historical contributions are clearly mindful of the considerable constraints upon change that result from the very nature of the extant international order, some of the more prescriptive and action-oriented pieces seem less willing to temper their exhortations with a more searching consideration of the problems that confront the peace movement. Some of the authors do indulge in an excess of metaphysical idealism reminding me of Bertrand Russell's acerbic observation that 'metaphysicians, like savages, are apt to imagine a magical connection between words and things'. (Quoted in: EH Carr, *The Twenty Year Crisis*, Macmillan, 1981 [1939], p 30.) Russell was referring to the ill-fated idealists of the period between the two world wars and the lesson should not be lost upon the contemporary peace movement. Many of the contributors were strong on identifying what should be thought and done but were somewhat weaker on identifying the causes of the global crisis of insecurity, assessing the possibilities for radical structural change and recognising the problems of transforming ideals into practical activity. Consequently the articles that reflect the implications of the title of the second issue - 'peace and transarmament' - seemed to con-

tain more of substance by more closely reflecting the international reality that confronts us.

Peter Lawler is a part-time tutor in international relations at Monash University. He is also conducting post-graduate research on Johan Galtung, the peace researcher, at La Trobe University.

Peace Dossiers, Numbers 1-6, Victorian Association for Peace Studies, Fitzroy. Order from Dale Hess, 3 The Avenue, Hampton, Vic 3188.

Reviewed by R O Desailly

The Victorian Association for Peace Studies (VAPS) is not an activist body in the mould of such worthy organisations as People for Nuclear Disarmament, the Movement Against Uranium Mining or Friends of the Earth. It claims to be an open association of people interested in study, research and education on issues of war and peace.

It has published a *Peace Dossier* series which is a sequence of pamphlets, attractively presented, each about twelve pages, and retailing at 70 cents each. My first sighting of a *Peace Dossier* caused me some slight concern as I could not quite reconcile the word 'dossier' with its subject matter. I have always thought of a dossier as a collection of incidents in a person's life illustrating past behaviour. To me the choice of title is off-putting. Why not stick to the word 'pamphlet' which, according to the Oxford Dictionary is 'a small unbound, often controversial treatise.'

So far, VAPS has produced 'American Bases in Australia' (Desmond Ball), 'Why We Have a War to Stop' (Alan Roberts), 'Is There a Soviet Threat?' (Andrew Mack), 'Nuclear War: The Threat to Australia' (Barrie Pittock), 'Medicine and Nuclear War' (John Andrews, John Powles, John Ward) and 'Peace: A Witness of Faith' (Raymond Hunthausen, Archbishop of Seattle, USA).

Given the limitation of space, all these pamphlets are excellent. Facts have been carefully marshalled; the reader has been honestly informed. Take the one about American bases in Australia. A clear map is used to show location, there is a simple and concise statement on the make-up of each, eg 'Pine Gap is controlled by the US Central Intelligence Agency . . . its business end consists of seven large radomes and an enormous computer complex . . .' Conclusions are temperate, eg 'Although the likelihood of strategic nuclear attack against Australia is not great, it is nonetheless finite . . .'

'Peace: A Witness of Faith' is VAPS' most recent pamphlet. It differs markedly from its predecessors and, probably because of my prejudice, I had difficulty in coming to terms with

it. It consists mainly of a speech delivered by Archbishop Hunthausen in Pittsburgh, in November 1982. Included also is an introduction by Val Noone outlining attitudes of the USA Catholic church and some details of Hunthausen's efforts.

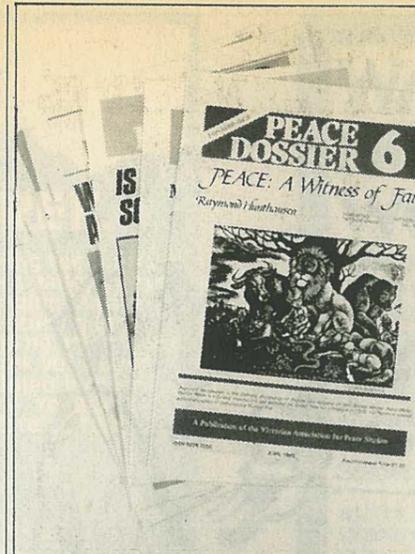
The main theme of the archbishop's speech is unilateral disarmament. To many people, unilateral disarmament is a doctrine espoused only by the hopelessly naive, others fear their support for, or even interest in, unilateral disarmament would only lead to a public ridiculing.

But, believe me, his plea goes well beyond a spiritual exhortation. He regards nuclear war as the ultimate violence. He points to the escalation of armaments out of all proportion to defence requirements and the unreasonableness of spending \$600 000 million a year on weapons and only \$35 000 million on alleviation of human misery. So far, he is as one with the peaceniks.

From that point, he warms up (remember this part of the pamphlet is a speech) and claims that religious leaders have a duty to speak out on 'concrete issues' and dismisses any idea that political issues should not be included. He believes that nuclear war, in prevailing circumstances, is inevitable and that failure to achieve mutual disarmament leaves us with only one moral position, that is unilateral disarmament. However, unilateral disarmament does not necessarily mean one-sided disarmament in the sense that a nation's defences would be weakened. Hunthausen suggests an initiative (perhaps even a minor one) by one of the super powers which would demonstrate trust and may lead to a favourable response from the other. The advantage of this process would be that, because of the negligible effect on defence capacity, there would not be that tremendous reaction from a public fearful of annihilation.

Shrewdly he bolsters his case by citing the late President Kennedy's successful negotiations with Russia twenty years ago. In June 1963, Kennedy discontinued bomb tests in the atmosphere. This decision (he states) ' . . . quickly reached the Russian people.' The Soviet Union immediately made a concession (concerning Yemen) which was followed by a USA concession regarding the UN. Krushchev, not to be outdone, then announced that his country would discontinue production of strategic bombers. President Kennedy had risked a succession of unilateral concessions and had accomplished much over a short period. In November 1963 he was assassinated.

Regarding and applying unilateral disarmament as a *step-by-step process* is, I believe, the archbishop's most significant contribution to the nuclear debate. Rabid anti-unilateralists may not find it so easy to rubbish unilateral-



ism which takes the form of comparatively modest initiatives, because each initiative would have only a minimal effect on national security.

To extend the archbishop's thesis a little further - why not start the process of unilateral disarmament with an economic initiative, USA support for the Russian gas pipe-line for example? This would open the way for a Russian response, maybe leading to a calmer relationship. There is no reason, of course, why the initial concession should not be offered by Russia.

I conclude my comments on the historic speech by quoting the archbishop:

I believe in unilateral disarmament not only because it is a moral imperative but because it is, I think, the most practical way to break through the mutual fear and distrust which dictate international relations today and which drive us to the brink of nuclear destruction.

The VAPS series is making a valuable contribution to the anti-nuclear debate, of that I am convinced. I think all their pamphlets are very suitable for schools at the senior level and of real interest to the public at large.

Bob Desailly is a member of the executive of People for Nuclear Disarmament.

Book

Over Our Dead Bodies: Women Against the Bomb, edited by Dorothy Thompson, Virago Press, London, 1983, 253 pages, \$7.95 (soft cover).
Reviewed by Susan Mueller

Over Our Dead Bodies is an anthology written by women of various political and social backgrounds. The one thing all have in common is an abhorrence of the nuclear weapons build-up and the

very real possibility of nuclear destruction.

On first reading *Over Our Dead Bodies* I had several reservations - the major one being a lack of feminist critique in the various pieces. I was hoping for some resolution to the 'feminist in the peace movement' dilemma - a refutation of the proposition that women become involved because of characteristics biologically inherent in women. What I was looking for was an analysis of the role of women in the peace movement. *Over Our Dead Bodies* gives, in most cases, informative and personalised accounts from individual women in the movement. Accounts which view nuclear destruction as inevitable unless all people determine to prevent nuclear war.

Many of the pieces cover the same ground and because the articles are short and self-contained this tends to be annoying. Subsequently there is little discussion about the broader aspects influencing the nuclear weapons build up. However, much of the discussion on the technical aspects of nuclear power and weapons is informative and readable. As an introduction to the technical aspects of nuclear weaponry *Over Our Dead Bodies* could be useful especially if you find much of the current literature incomprehensible.

One of the articles I found most interesting was 'The Women Who Wire Up The Weapons: Women in Armaments Factories'. Hilary Wainwright gives a well balanced account of why women continue to work in armaments factories when they are aware of the nature of their work. Many people would probably be prepared to denigrate these women for what they do. However, Hilary Wainwright, in describing the socio-economic backgrounds of these women, draws upon the broader concepts of worker exploitation and sexism which are so common to the manufacturing industry. This article links, as the others fail to do, opposition to nuclear armaments with class conflict and highlights the contradictions of a society hell-bent on destroying itself and everything associated with it for the sake of capital accumulation and national prestige.

Apart from the Wainwright article and the snippets of technical information I was not overly impressed by *Over Our Dead Bodies*. Much better analysis of the arms build-up and the political and economic forces behind it can be found in a wide range of current literature on nuclear weapons and the arms race. If however, you want to get some understanding of what motivates individual women to become involved in the opposition to nuclear weapons you may find *Over Our Dead Bodies* interesting.

Susan Mueller works as office coordinator at Chain Reaction, among other things.

ACTION GUIDE

Energy Action Group

90 Elgin St
Carlton
Victoria 3053
Tel: (03) 348 1055

The Energy Action Group originates from the Victorian SEC Action Group which was formed in 1978 by welfare workers and low-income consumers wishing to change the customer policies of the State Electricity Commission of Victoria and the Gas and Fuel Corporation, and to make the public utilities more accountable to domestic consumers.

The Energy Action Group supports the 'right to fuel' for all consumers, and believes that, to secure this right, both for today's consumers and for future generations, the public at large must be made more aware of and involved in energy and utility policies and practices. The decision-making process must be broadened from an exclusive concern with finance, technology and conservation issues to include the principles of social equity and consumer rights.

To assist consumers and to promote public awareness, the Energy Action Group publishes a newsletter and is currently producing a series of consumer rights pamphlets. In addition, public meetings are organised and speakers provided for groups such as metropolitan and country branches of the Combined Pensioners' Association, Union of Australian Women, Country Women's Associations, local tenant's groups and environment 'activists'.

The Energy Action Group provides an advocacy service for consumers and sees its role primarily as that of developing policies to meet the needs of its 1000 members. It is working with a number of local councils to develop



programs of reducing energy wastage in the home and insulating existing dwellings to improve the comfort levels of those suffering from lack of adequate heating.

The Group has just completed a 200-page report titled 'Fuel Poverty in Victoria', which details the hardship of low-income households unable to meet their essential needs for energy. Each year some 35 000 Victorians are disconnected from gas and electricity. Other families go hungry to avoid disconnection, or are forced to 'beg, borrow or steal' to meet fuel costs. Others again, particularly the elderly, 'choose' to go without heating in order to avoid disconnection or debt. It is this group which is most at risk from cold-related illnesses and which adds some 2000 deaths to Victoria's winter mortality figures, a seasonal jump which does not occur in the colder Scandinavian countries where houses are adequately heated.

The Energy Action Group report indicates the regressive social effects of rising fuel costs, government taxes on domestic gas and electricity consumption, and the introduction of inverted tariffs with no concession for low-income households with high energy needs such as the sick, the disabled and large families. Harsh and inequitable customer policies and practices, particularly disconnection and security deposits, aggravate the hardship resulting from such tariff increases. Poor quality housing completes the vicious circle for those on low incomes.

The following recommendations contained in the report have been made to the Victorian government and have already been endorsed by over 50 welfare, community and consumer organisations. The report asks for:

- Amended state government legislation restricting the powers of public

supply authorities to disconnect only in cases of wilful default of fuel debts by domestic consumers

- State government rebates of 50% of all fuel bills for all Commonwealth Health Card holders, to be funded from consolidated revenue
- An emergency fuel relief fund to be provided from consolidated revenue.
- Abolition of all state taxes on domestic gas and electricity consumption
- An end to direct or indirect subsidies for large industrial consumers such as Alcoa
- Establishment of a public review process for determining Victorian energy tariffs
- An increase in federal government pensions and benefits to 120% of the poverty line
- Amendments to existing utility customer policies to include: abolition of security deposits; the introduction of more flexible and frequent billing and payment options; establishment of an independent appeals tribunal; publication of a multilingual consumer handbook
- Immediate action by the state government to improve the thermal standards of existing and future housing stock and the standards of heating and hot water systems provided in public housing
- State government allocation of funds for community groups and local councils to implement insulation and draught-proofing programs for all disadvantaged households in Victoria
- Introduction of state government controls on the efficiency and safety of all heating and hot water appliances and systems, and government labelling of all such appliances and systems to protect the public against misleading advertising
- Establishment by the state government of a comprehensive energy database for Victoria
- Provision of funding by the state government for domestic energy consumer groups including the Energy Action Group to provide on-going consultation with government and the utilities and independent policy development

For copies of this report, the regular newsletter, or for information on any area covered by the recommendations, write or telephone the above address. Individual membership is only \$1.00, or \$15.00 for an organisation. If you would like to volunteer to work in the office, to help with developing consumer energy policies, or to establish local or regional branches of the Energy Action Group, you would be welcomed with open arms.

A consumer group with similar aims to the Energy Action Group is operating in Perth, Western Australia:
SEC Action Group
c/- Marg Grounds
PO Box 807
Fremantle
Western Australia 6160

EAG

NOT THE EVEREST TREK.

We give you Himalayan treks with a difference. As a member of a small guided group, we take you into unique and remote mountain regions. Off the tourist tracks.

Hiking the forested Langtang Valley, rafting the surging Marsyandi River, venturing into the Annapurna heartland, and on one trek you could be accompanied by a Hatha Yoga teacher. Meditate on that one!



At Bushgear
377 Little Bourke Street, Melbourne (03) 67 7252

Rush me your adventure holiday brochure.

Name
Address

My special interests in adventure holidays —

Australia Overseas

AGE 7 - 83
CR 1/8

DO YOU NEED TO KNOW MORE ABOUT THE THIRD WORLD

BUT HAVEN'T TIME TO READ ALL THAT'S PUBLISHED?

The Ideas Centre BULLETIN is a unique service designed to keep you up-to-date with Third World Development

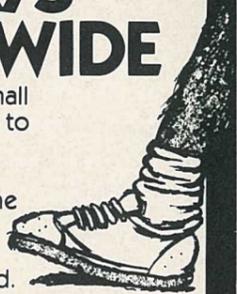
The BULLETIN contains synopses of the major articles appearing in over 200 journals concerned with Third World issues, set out under SUBJECT and COUNTRY headings for easy reference. Copies of the complete articles may then be ordered from the Ideas Centre at a cost of 10 cents per page.

Appearing in 18 issues per year, the Ideas Centre BULLETIN costs only \$15 for an annual subscription. If you wish, we will send you a sample copy without charge. Details should be sent to the Ideas Centre, G.P.O. Box 3930, Sydney 2001.

The Ideas Centre is the national Research and Education Unit of the Australian Freedom From Hunger Campaign, and may be contacted on (02) 29 5791

WALKING HOLIDAYS WORLDWIDE

Quality, expertly led, small group walking holidays to the world's greatest mountain ranges. Nepal, New Zealand, the Andes, Kenya, Tibet, Kashmir, Papua New Guinea, Alaska, Thailand. Graded to suit all levels of fitness.



AUSTRALIAN HIMALAYAN EXPEDITIONS
SYDNEY: 159 Cathedral Street, Woolloomooloo
NSW 2011. Tel. (02) 357 3555

MELBOURNE: Suite 602, Wellesley House,
126 Wellington Parade, East Melbourne VIC 3002.
Tel. (03) 419 2333 or (03) 419 2920

ADELAIDE: 40 Waymouth Street, Adelaide SA 5000.
Tel. (08) 212 7857

Please rush me your FREE 64-page colour catalogue.

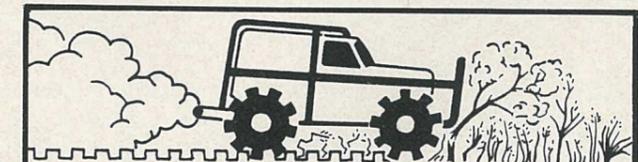
NAME

ADDRESS

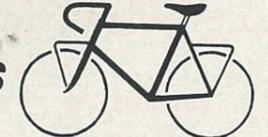


Lic. B1418

CR 1/8



Some Recreational Vehicles cost the Earth ...

OURS  DON'T



Inner City Cycles

CUSTOM BUILT BIKES
COMPETENT REPAIRS
TOURING SPECIALISTS
31 GLEBE POINT ROAD
2037 (02) 660 6605



Help us put you in the picture...

Chain Reaction keeps you informed on social, environmental, energy and resources issues. From an independent perspective which seeks to encourage discussion and action. But producing Chain Reaction takes a lot of work.

And now we're trying to do it six times a year.

If we're going to continue and improve this vital service we need your help.

You can help us in many different ways, from writing articles to finding new readers, from designing covers to tidying our files...

And you get a say in the running of the magazine.

If you have a little time (or a lot) to spare, contact the Chain Reaction collective in Melbourne or Sydney.

Free child care available if required.

Room 14, Floor 4
37 Swanston St
Melbourne 3000
Tel: (03) 63 5995
(10-6 weekdays)

Floor 2
787 George St
Sydney 2000
Tel: (02) 211 3953
(leave a message)