

# Chain Reaction

Friends of the Earth Australia

Number 31 Autumn 1983 \$2.00

## TECHNOLOGY

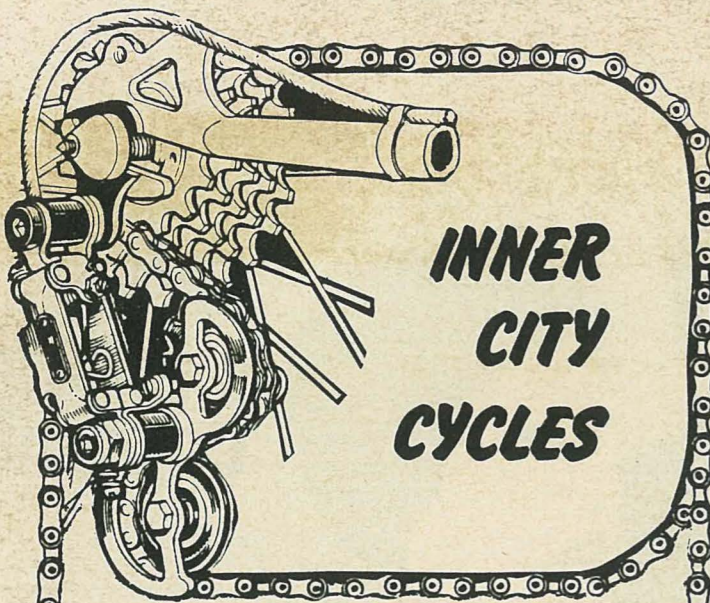
Who  
is taking  
control

## COMMUNICATIONS



• REPETITION INJURIES • NSW RAINFOREST •



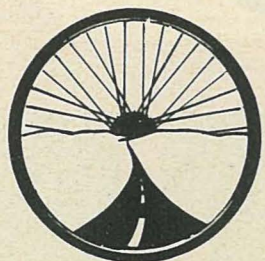


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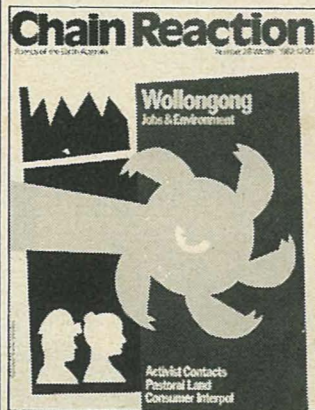


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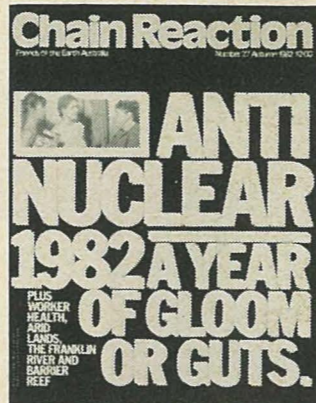
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Twenty-six back copies of *Chain Reaction* — all those published from Autumn 1976 (except vol 2 no 3, of which we will supply a reprint of the major stories) — are available as a set for \$35. Also available are the four editions published in 1982, for \$8. Add another \$2 to include this edition (no 31). All post free.

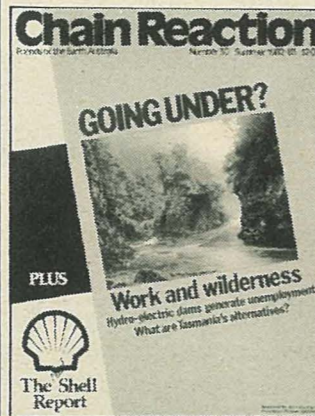
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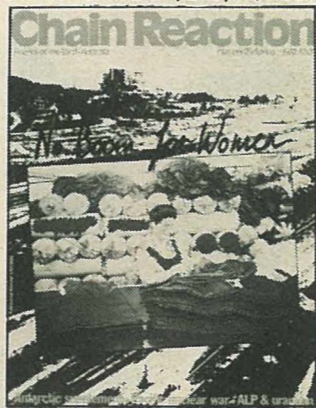
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Summer 1982-83, no 30 — Jobs and hydro dams, Shell in Australia, Sydney's toxic wastes, Fighting for work in Newcastle, Nuclear war. \$2.00.



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## Chain Reaction

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Autumn 1983

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# CONTENTS

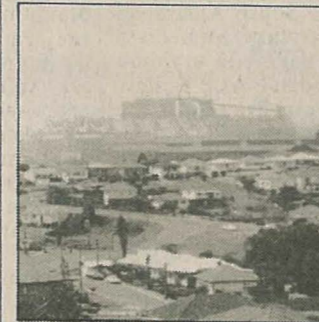
## COMMUNICATIONS TECHNOLOGY: DISCONNECTING THE PUBLIC

By Ariel Couchman

Cable television, satellites, videotex . . . how are these services being introduced into Australia, and for whose benefit?

10

## AIS TELLS RESIDENTS TO COUGH UP OR NO JOBS



By Glenn Mitchell

People in Cringila fight a proposal by Australian Iron & Steel to dump its wastes near their homes.

17

## ECOLOGY AND IDEOLOGY

By Ariel Kay Salleh

'Ecology is "not just green" but it's not simply "red" either.'

20

## BREAST MILK: A SOURCE OF MORE THAN NUTRITION



By Rosemary Nichols

Mother's milk is seriously contaminated by toxic chemicals. Making the milk safe means stopping the pollution of the environment.

21

## WORK-INDUCED REPETITION INJURIES

By Sharon Callahan, Lorraine Powell and Anne King

Thousands of workers, mostly women, suffer crippling injury from doing repetitive tasks.

25

## MARTIAL POWER

By Wistula Zelen

Polish authorities have announced an ambitious nuclear power program.

29

## NSW RAINFOREST SAVED



By Jenny Quealy

How true are timber industry claims that jobs will be lost when NSW's rainforests are proclaimed national parks?

30

FOE GROUPS 2

LETTERS 3

EARTH NEWS 5

BACKSTAGE 9

REVIEWS 33

ACTION GUIDE 40

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# FOE GROUPS

## Nuclear War Film

For 18 years Peter Watkins' remarkable film, *War Game*, has been banned from broadcast by the British Broadcasting Commission and has not been shown by other television networks.

Now Watkins plans to produce the *Nuclear War Film* which will depict the present-day preparations for, and the results of, a global nuclear conflict. Already in England secret legislation has been prepared which strips the public of all rights of movement, communication, medical services and protest upon the threat of nuclear war.

Watkins' attempts to raise funding from the film and television industry have met with refusal and blatant attempts to stop production of the film. However fund-raising campaigns are being organised in Britain, North America, Europe and Australia. Individuals and organisations are asked to pledge financial support for this important film. At the moment people and groups are simply required to let the fund-raising committee know how much they can give.

**Action:** For more information and to pledge your financial support contact the Peter Watkins' *Nuclear War Film* Fund, c/- 366 Smith St, Collingwood, Vic 3066, or telephone Ian Cuning on (03) 387 3579.



Relaxing between meeting sessions. From left: Pat Lowther (FOE Collingwood), Nick Thieberger (National Liaison Officer), Kim Robinson (FOE La Trobe), Denise Chevalier (FOE Collingwood).

## National meeting

The national conference of Friends of the Earth Australia was held near Adelaide on 20-24 January 1983. The meeting called on the South Australian Labor government to take immediate steps to close the Honeymoon uranium mine in line with federal ALP policy. David MacKinnon, from Friends of the Earth (Northern Yorke Peninsula) said, 'We call on the South Australian ALP to immediately make clear its position with regard to uranium mining in the state.'

The conference also called on the federal government to fulfil its international obligation to protect world heritage areas. 'This not only includes the South West of Tasmania, but also Kakadu National Park', said Pat

Lowther from Friends of the Earth (Collingwood), 'This world heritage area is under threat of devastation from uranium mining on the boundaries of the Park.' The conference expressed its support of traditional owners who are voicing their opposition to the proposed Kongarra mine in the centre of Kakadu National Park.

Representatives from Friends of the Earth groups around Australia expressed concern that the destruction of the environment was being justified with claims that these capital-intensive developments created jobs. More jobs would be created by more labour-intensive, environmentally-conscious activities such as recycling and reforestation.

LIZ OSMAN

## 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 \$16 (\$8 concession); Vic \$20 (\$15); WA \$15 (\$7.50) or whatever you can afford; Qld \$15 (\$10); SA, NT, Tas, ACT \$10 or what ever 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 at right. Donations are very welcome. Contact us for details on how to make tax deductible donations to FOE.

### Friends of the Earth groups

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- NATIONAL LIAISON OFFICER Nick Thieberger, c/- 366 Smith St, Collingwood, Vic 3066 (03) 419 8700

## 'Not just green' ... ?

Despite your rather immodest approach to self-promotion I am forced to agree that *Chain Reaction* is probably the best environment magazine in Australia. The major reason to me is simply CR's willingness and ability to tie in the social, economic and political issues with the environmental problems. I have no objections to magazines, newsletters or whatever approaching a subject from a purely environmental or political viewpoint. Diversity of outlook is healthy for democracy. Personally though, I think CR is on the right track and represents a growing maturity in the environment movement.

Along these lines I would like to suggest a future article on the 'green' party in West Germany. I have heard and read a few bits and pieces about it recently but nothing very substantial. I'm sure CR can fill the information gap quite well on what appears to be an interesting development. The pros and cons of their aims, structure and strategies as well as degree of progress should also be quite useful in stimulating thought and debate. I hope you agree.

Keith Adkins  
Reservoir, Vic

I would like to subscribe to *Chain Reaction* for the next eight editions.

By the way, our household enjoys the broader political content of the magazine in contrast to the narrower coverage of more 'traditional' conservation areas. Here in Darwin and Katherine there are (as you probably must have heard) National Park devotees who are anti land rights, including Northern Territory Conservation Commission rangers at Katherine Gorge who are conducting a vigorous campaign with a widely distributed petition against the Jayoyn land claim. ('You'd better hurry and see the gorge now before it's too late' paranoias.) Anyway, we might try to get some stuff together for a bit of an article.

Jan Weate  
Darwin, NT

Thanks for an excellent issue of *Chain Reaction*. In particular we find your Backstage article 'Not Just Green' to be a clear description of the realities of the world today. The article 'Shell's Australia . . . ' by Jenny Hocking is a perfect example of how the problems encountered by many people in differing situations are all interlocked and related.

Keep up the good work. We find your magazine most useful.

Irene Gale  
National Secretary  
Campaign Against Racial  
Exploitation  
Kensington Park, SA

'other' issues (which are arguably environmental anyway), is to be naive and blinkered. This way of thinking - a comfortable reductionism - is the type of approach taken by bureaucrats, economists and others. To see the world in a reductionist way is patently unreal and leads to a complete lack of appreciation that most environmental problems are complex and interrelated and that appropriate solutions must be integrated and must tackle the social causes of the conflict. My congratulations go wholeheartedly to the editorial group and I would hope that

# LETTERS

used on non-conservation issues at the expense of potentially successful conservation campaigns.

For example the very broad aim of changing the inequities of society will take years and if in the meantime scarce resources are not concentrated on large conservation campaigns the natural environment will fall apart.

There are other groups in a democratic society, such as the women's movement and the union movement, that can deal with the non-conservation issues that *Chain Reaction* wants to treat.

Stephen C. Taylor  
Castlecrag, NSW

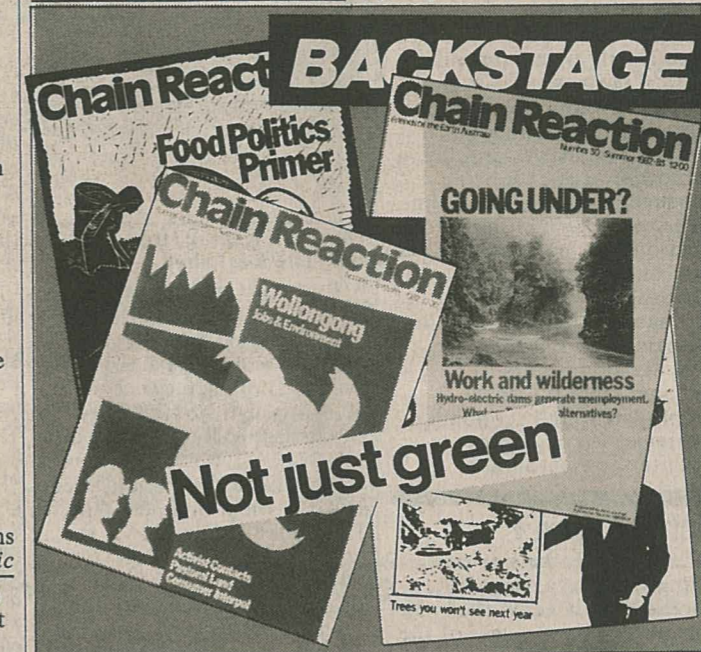
## Toxic wastelands

The article 'Sydney's toxic wastelands' gives a wildly inaccurate view of the activities of the Ecosystem Group.

The Ecosystem Group has never referred to anyone as 'hysterical and misinformed' either in our submission or in any other statement. We are disappointed that you would print such an allegation without evidence of its truthfulness. We think you owe us an apology for your error.

We have never, as the article suggests, uncritically endorsed the activities of the Sydney Metropolitan Waste Disposal Authority (MWDA). Our submission, quoted out of context and then conveniently ignored in the article, criticises the MWDA for the continued operation of the Castlereagh dump and for lack of proper consultation with Castlereagh and Fairfield residents, among other points.

The recommendations made in our submission, directed to the MWDA and the NSW Minister for Planning and Environment, include a joint state-federal inquiry to resolve the problem of siting a national incinerator, and a NSW state inquiry into the construction of a liquid waste



I am a regular reader of *Chain Reaction* and, yes, I have noticed 'a distinct shift in content of the magazine'. This shift is certainly warranted, although I see from reading Bette Beckwith's letter in the last edition that not all FOE folk are entirely enamoured with it. I would say to Bette that the magazine is, in fact, not departing from its 'original intentions - the conservation, restoration and rational use of the ecosphere'. Rather, the attitude of the magazine's editorial group has, I believe, matured a great deal and is pursuing these original intentions in an integrated and realistic manner. To see 'environmental' problems in a separate little box unconnected to social and

others would see that this shift in direction strengthens rather than weakens our cause.

Garry Werren  
Melbourne, Vic

I disagree with the idea that *Chain Reaction* must spread into issues that are not strictly concerned with the natural environment. After all, there is already too large a number of strictly conservation issues to handle adequately.

If an extension is required then it should be to concentrate on educating school children of the need to preserve the natural environment.

Side issues can help in understanding conservation of the natural environment but FOE resources should not be



# LETTERS

► treatment plant as an alternative to the Castlereagh depot.

Our submission primarily addresses the 98% of liquid industrial waste which could (and in our opinion should) be considered separately from intractable wastes such as PCB's and insecticide residues. We discuss, but do not endorse, the urban siting of a toxic waste incinerator.

We think it is worth noting that the author of 'Sydney's Toxic Wastelands' never bothered to discuss the issue of liquid and toxic waste disposal with us. At the FOE (Sydney) meeting of 31 July, 1982, a two-hour seminar on the issue was planned for the following meeting of 27 August. Despite knowledge of the planned seminar, he was not present to discuss his views on the issue. We find it ironic that his article points out 'an urgent need to develop an acceptable campaign strategy to prevent future environmental disasters from hazardous liquid wastes'. How does the author propose to develop a national strategy if he is unwilling to interact with campaigners who were in his own local group?

Annette Horsler  
Robert Rands  
Newtown, NSW

Wieslaw Lichacz, author of 'Sydney's Toxic Wastelands', replies:

It is rather unfortunate that the Ecosystem Group have chosen to continue on a charade of confusion through misleading refutations of the 'Sydney's Toxic Wastelands' article. Their assertions that the author had not bothered to discuss the issue of hazardous liquid wastes with them is incorrect. Many hours of carefully considered consultations, negotiations, and questions, as well as participation in a Castlereagh Liquid Waste Depot site inspection, were undertaken.

Without any indication of support from the Ecosystem Group for the Wetherill Park

residents' opposition to the siting of an urban hazardous waste plant, one can only assume that the Ecosystem Group does not oppose the planned siting. After living in the area for most of my life I feel that such views should not go unreported.

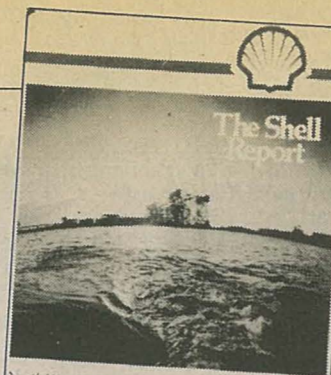
I feel that we should be concentrating on the issue of the real needs of the community, and if a community comes out decidedly opposed to any urban siting of a hazardous waste disposal plant, they should receive wide environmental support rather than contempt, or a backdoor approach for a rerun of a revamped and newly packaged proposal. Attempts at muddying the waters will be seen clearly by astute and critical environmentalists, and a campaign strategy seriously questioning the need for industries producing hazardous wastes is being pursued in Sydney. This time of recession will either lead environment movements into making concessions or hopefully it will allow a strong consolidation of gains won over the last ten years. The decision is ours to propose more positive employment and economic strategies which do not pollute the environment.

## Shell's Australia

If imitation is the sincerest form of flattery, then we should feel flattered that you devoted so many pages of the summer issue of *Chain Reaction* to an imitation of the Shell Report. Alas, the imitation only extended to the form and not the substance, and the writer, Jenny Hocking, covered much of the well-worn and wrong-headed 'demonology' about large corporations so beloved of so-called radical groups.

It would be both tedious and futile to try to correct all the errors and half-truths contained in your mis-report but in the interests of accuracy you should at least correct your files on the following matters of fact, which could easily have been verified if your reporter had followed some of the basic rules of journalism:

(1) Shell does not hold an



Shell's Australia: mined, refined and undermined.

The Shell Report (top), and 'The Real Shell Report' (CR 30) below.

oil and gas exploration lease on the great Barrier Reef (p21). We did have a permit over offshore acreage at Maryborough, south of the Great Barrier Reef from 1964 to 1971.

(2) The exploration licence at Adamsfield in South West Tasmania (p21) was relinquished in 1982. Following the unsuccessful legal challenge issued by the Tasmanian Conservation Trust in 1981, Shell voluntarily paid the court costs of both parties.

(3) Shell has a 30% interest in the Worsley alumina refinery in Western Australia, not 33% of the Worsley aluminium refinery (p20). It does not hold any interest in Alumax Bauxite Corporation.

(4) Comments about further reducing local ownership in the coal industry are a good example of half-truths. Take, for example, the German Creek mine in Queensland which began production last year. Shell has progressively reduced its equity in this joint venture from 48% to 16-2/3% and Australian equity in this venture is 50%. Indeed there is not a single coal-producing venture in which Shell

Australia is involved where foreign equity exceeds 50%. This conforms fully with Australia's foreign investment policy, as would any further participation by Shell Australia in coal development.

(5) The statement that 'Shell dominates the international seed industry' is fanciful. Nor does Shell control 30 seed companies in Europe and North America (p20). No evidence is produced for the assertion that high-yield plant strains having a high dependency on fertilisers and pesticides have been developed and patented, probably for the very good reason that there is no evidence to support this unjustified assertion.

Setting aside the emotional content of the comments about transnational corporations, the fact remains that international corporations operating in Australia are subject to laws and controls which exceed those applying to Australian companies. Ownership might reside abroad, but control most definitely resides here, with the elected Governments. Unpalatable though it might be to a few people, international corporations operating here do so with the active support of the majority of the Australian people. They are responsible, to answer your implied question, to the people of Australia. Corporations, like individual citizens, have rights and obligations which are set out clearly in the laws of the nation. Anyone who thinks that the laws are deficient in any matter is free to campaign for a change in the law, but to suggest that Governments are powerless to control transnational corporations is wilfully to ignore reality.

Anthony Adair  
Corporate Relations  
Manager  
The Shell Company of  
Australia Limited  
Melbourne, Vic

Jenny Hocking, author of 'Shell's Australia: mined, refined and undermined', is on holidays. She will reply in the next issue.

## No dams

The major issue in the South West Dam debate concerns the end use of the new power

# EARTH NEWS

## Australia's doomsday

A recent issue of the environmental journal of the Royal Swedish Academy of Sciences, *Ambio*, contains a reference scenario in which 33 megatons of nuclear explosives are detonated on Australian targets.

The scenario was drawn up by a panel of European experts as a basis for calculating the human and environmental consequences of a major nuclear war, imagined to occur in 1985. The scenario is not extreme as it allocates fewer than 15 000 of the 50 000 to 60 000 nuclear warheads estimated to be in stock by 1985, less than half the available megatonnage.

The Australian joint parliamentary committee on Foreign Affairs and Defence says that only the USA bases at North West Cape, Pine Gap, and Nurrungar are likely to be hit. The *Ambio* scenario has at least 1 megaton falling on each Australian city of

over 100 000 people and includes as targets: Cockburn Sound; Jervis Bay; nine additional airfields; and seven oil and gas fields.

The *Ambio* study concludes that more than half the population of all cities bombed would be killed more or less immediately, and another quarter seriously injured. When the secondary effects of radiation sickness and epidemics are included, the scenario suggests that well over half of Australia's total population would die, and that most of its secondary industry and transport and energy networks would be destroyed.

If this scenario is at all realistic it puts into serious question the parliamentary committee's assessment that the risks entailed in harboring USA bases 'are outweighed by the advantages Australia derives from its alliance with the United States'.

Source: *VAPS Newsletter*, December 1982, published by the Victorian Association for Peace Studies.

## Pacifist soldier Human robot

An ever-growing group of military service people are joining the ranks of the United Kingdom's Campaign for Nuclear Disarmament (CND). One soldier, Jeffrey Clare, who publicly declared his membership with CND was dismissed with 24 hours notice.

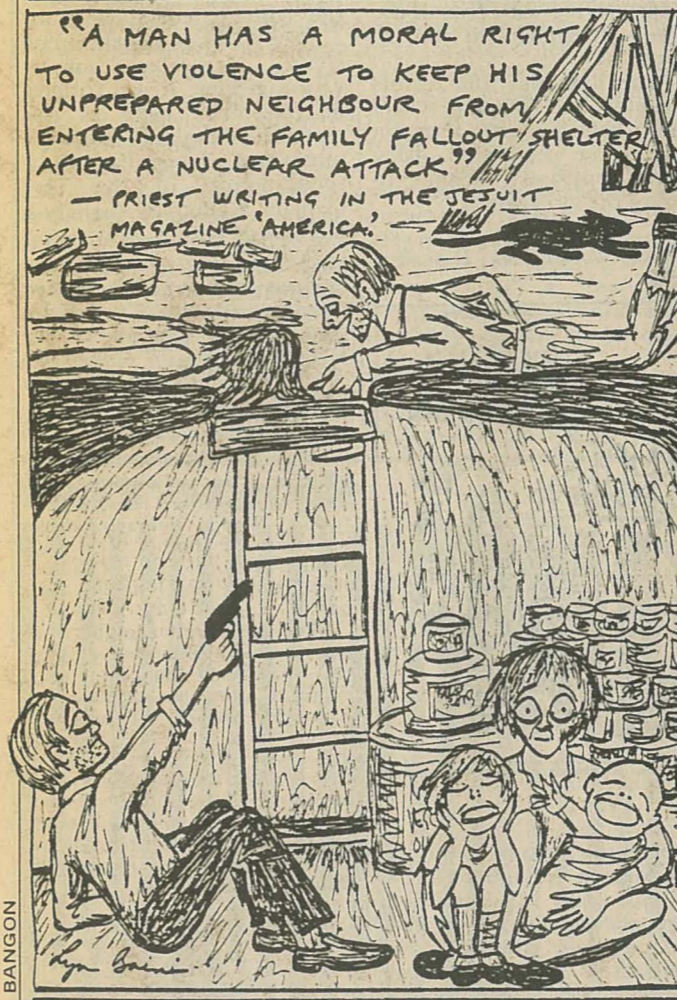
The Army has stated that there were no regulations banning soldiers from joining CND. However, Clare had been given what was termed an 'administrative discharge', because his regiment considered he had 'lost interest'. Clare found this baffling as his captain had told him that his work and attitude were first class.

Source: *CANF Newsletter*, December 1982, published by the Campaign Against Nuclear Energy, in Western Australia.

Japanese scientists have begun a five-year project in the new area of 'bioholonics' — the science of self-organising life phenomena. The goal of the project is to develop motors powered by biochemistry, and even a 'biochemical computer'.

Professor Hiroshi Shimizu of Tokyo University has already synthesised a molecular motor. It was powered by muscle proteins and the energy-carrying chemical adenosine triphosphate (better known as ATP). His next project will pursue an idea for reconstituting elements of the nervous system into a sensor, possibly to make a 'feeling robot'. This would be one step along the road to a 'bio-computer'.

Source: *New Scientist*, 11 November 1982.



BANGON

## Wet desert

The Indian government has admitted the initial failure of the USA\$360 million dam and canal project in Hoshangabad district, Madhya Pradesh state, and is reviewing the whole scheme. The project, on the Tawa River, was meant to irrigate an area of 2600 sq km but it has turned farmland into a 'wet desert'.

This is not an isolated example of poorly planned irrigation schemes, as an estimated 60 000 sq km of once productive Indian land have been lost recently through waterlogging and

salinity caused by similar projects.

Project authorities had foreseen 30% seepage losses, but the actual losses have been twice that. Irrigation has led to lower wheat and maize yields, so angry farmers have refused to repay loans totalling USA\$6.5 million from the state's Land Development Corporation.

The government is intending to try to rectify the problem with a drainage 'master plan' but the West German government, which partially funded the scheme, is unlikely to provide any more aid for the project.

Source: *Earthscan*, October 1982.



## Activist found dead

On 8 December 1982, the body of Claude Henri Mathey was found in the Garonne, a river which traverses the southwest of France and runs through Golfech. Claude Henri was very active in the ongoing struggle against construction of a nuclear reactor in Golfech.

The anti-nuclear Comite de Golfech believes that Claude Henri was kidnapped and murdered, and his body thrown into the Garonne. It has been reported that the judge who handled the preliminary hearings suspects it to be a political murder.

Police, however, have implied that Claude Henri was killed because he was a homosexual.

Source: World Information Service on Energy, 17 December 1982.

## Sri Lankan women's strike

Over 700 women textile workers in Sri Lanka have been on strike for more than six weeks over demands for better pay, leave and conditions.

The women employees of the Polytex Garments Company work for less than US\$1 a day. From September to December 1982 they attempted to get their company's management to discuss a list of demands with them. In December seven workers were suspended for enforcing an overtime ban, and since then 700 have been on strike.

At a peaceful meeting, women were forced to disperse by armed police with threats of tear gas and the arrest of their leaders.

Source: *Tribune*, 26 January 1983.

## Callous zealots

The 'right to life' in the USA frequently makes itself notorious through the unscrupulous zeal with which it seeks to prevent all abortions. In mid-1982 the Pro-life Action League (PAL) scandalised much of Chicago, Illinois, when it besieged a family in an effort to prevent an 11-year-old daughter from having an abortion.

The pro-lifers hired a detective to trace the girl's mother after she sought an abortion for her daughter. After several days the detective located the family in a housing project. Members of PAL and a hospital gynaecology department head then went to the family's home to talk to the mother.

The mother refused to let them in the door. Unabashed, the group then telephoned the girl from a neighbour's apartment. When the child came in from playing with friends the group demanded to talk to her alone.

The next day the zealots picketed the hospital where they believed the abortion was to be performed. They were apparently unable to locate the girl again.

Source: *Womanspeak*, November 1982.



## Chipko victory

The 'Chipko' movement, a tree-planting and tree-protection campaign in the mountainous region of India's northern state of Uttar Pradesh, is trying to halt the deforestation which is threatening the environment of the Himalayan region.

The movement began spontaneously among mountain villagers, mostly women, who saw how their hardships increased as the tree cover decreased. It is a unique enterprise of poor people fighting to save their wood resources and to maintain the stability of the hills upon which their livelihood depends.

Traditionally, the greatest single factor in the protection of the Himalayan forests was their isolation, but this was effectively ended in the early 1960s. To meet increased timber demands, authorities

opened the region to commercial logging firms based in the plains. Local dissatisfaction grew and in 1973 the villagers of Gopeshwar confronted the contractors and staged an angry protest. The action was successful and the contractors backed down and moved away.

The movement has spread throughout nearby districts and is rapidly spreading to other states in India. In its eight years of existence, the Chipko movement has become highly organised. Village co-operatives have been set up. The movement, with the help of students and social workers, is supporting an extensive reforestation programme.

Source: *Environment Information*, United Nations Environment Programme, November 1982.

## National coalition

The conservation movement, through the National South West Coalition (NSWC), has recently decided to back the Australian Labor Party and the Australian Democrats in the coming federal election.

The NSWC is a coalition of sixteen Australian conservation groups. It was formed in December 1982 as the 'Save the Franklin' campaign intensified. Linda Parlane, a spokesperson of the Tasmanian Wilderness Society's Melbourne branch, said:

Never before in its history has the 'green' conservation movement taken a party political stand. The clear no-dams policies of the Labor Party and the Democrats, in contrast with the pro-dams position of the Liberals, has left the movement no alternative but to adopt this partisan stand.

The task which unites the coalition is not simply protecting the Franklin River but all Australian World Heritage areas, including the Barrier Reef and Kakadu National Park; all will be threatened if the Franklin goes under.

The movement's adoption of a party-political position, despite the traditional support from people of all political persuasions, is a clue to the difficulty of taking such a stand, and an indication of how important a step it is for the movement as a whole.

For the first time the conservation movement is prepared to join together and show its strength through the ballot box.



## Disposal proposal

After the successful opposition to a proposal for a hazardous waste treatment complex at Wetherill Park, a western suburb of Sydney, last year (see *Chain Reaction* Summer 1982-83), and in the light of the poor public image of the Metropolitan Waste Disposal Authority, the NSW government has now handed over the problem of toxic waste disposal to the State Pollution Control Commission (SPCC).

Sydney residents will probably be presented with a revamped proposal which splits the treatment operations in two. The first part will deal with so-called non-intractable wastes, which would be subject to biological and physical treatments, and the waste water disposed of by an ocean outfall. Three-quarters of the original waste will end

up in the ocean.

The SPCC appears to be advocating that there would be 'substantially less environmental impact' than at present if the treatment plant were located close to the industrial sources. They envisage the main environmental effects to be involved in the transporting of the wastes. There would be approximately 25 tanker trips per day of liquid waste and five trips for removal of solid waste for landfill.

The second part of the proposal is to incinerate the intractable wastes such as polychlorinated biphenyls and chlorinated hydrocarbons. There is still a view that incineration of these wastes is the only option to be considered.

Action: Friends of the Earth Sydney is collecting information on the industries which produce

hazardous wastes. Anyone interested in working out a strategy to reduce the volumes of waste produced should contact Wieslaw Lichacz, FOE Sydney, Floor 2, 787 George St, Sydney, NSW 2000. Tel: (02) 211 3953.

## Shell oils apartheid

A report published in June 1982 clearly implicates Shell as the company most deeply involved in maintaining oil shipments to South Africa. It identifies 81 tankers as probably shipping oil supplies to South Africa. Of these tankers, 19 were owned or chartered by Shell.

The report, whilst extremely detailed, is necessarily vague since the publication of any information on South Africa's oil imports is surrounded by secrecy. It details the way in which Shell sends full shipments of oil

from its Curacao Oil Terminal in the Netherlands Antilles, a Dutch territory, to South Africa. Since the Netherlands Antilles has no restrictions on exports to South Africa this activity does not itself breach any embargo; but Shell has refused to comment on the possibility that the oil originated in countries which have agreed to the United Nations embargo.

South Africa remains totally dependent on import to meet its oil needs. This dependence has handed the international community a most powerful weapon with which to enforce the isolation of the regime. The persistence of companies such as Shell in continuing the oil trade with South Africa is contributing to the endurance of that country's apartheid policies.

Source: *Shipping Research Bureau Report*, Amsterdam, June 1982.

## Asbestos law suits

In August 1982 the largest asbestos manufacturer in the western world, the USA Manville Corporation, filed under bankruptcy laws for protection against the thousands of lawsuits that have been brought against the company by workers suffering from asbestos-related diseases.

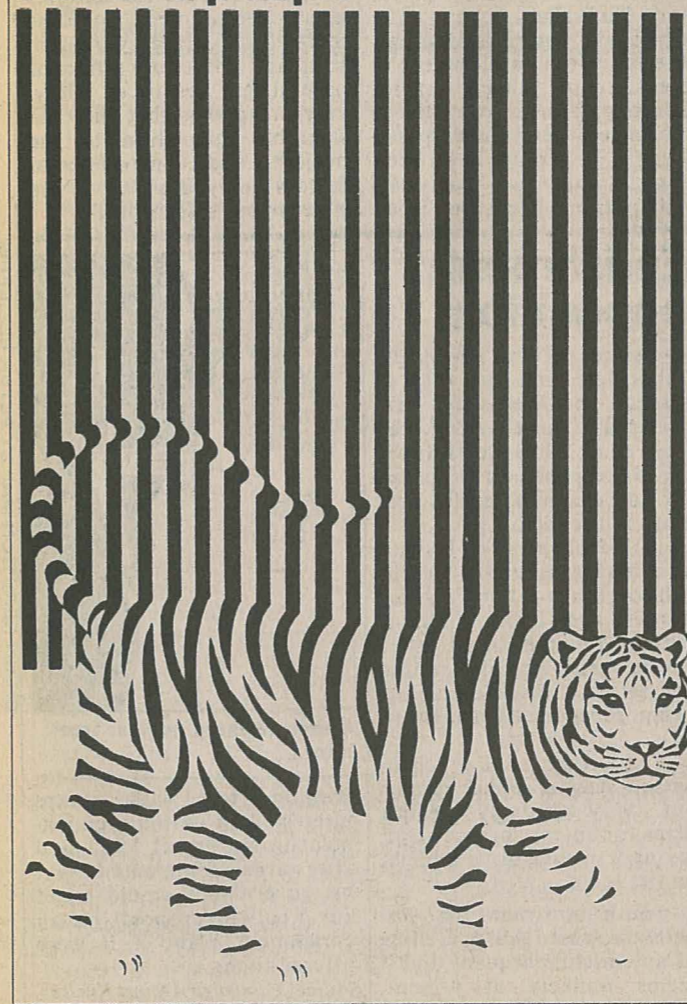
It is uncertain exactly how many workers have been affected by asbestos. One USA estimate is that 13 million workers were 'significantly' exposed between 1940 and 1979. Of those still alive, the death rate from asbestos-related cancer alone is 8500 people each year.

The bankruptcy action has brought lawsuits against the company to a halt and will prevent new ones being brought. So far, 16 500 cases have been filed against Manville but they say that claims could reach 52 000 within a few years.

Manville is a financially healthy company. The bankruptcy action is simply intended to insulate the company against the lawsuits brought by workers suffering from asbestos-related diseases.

Source: *Work Hazards*, December 1982, published by Lidcombe Workers Health Centre.

## Parks vs people



National parks in many developing countries may have successfully protected rare and endangered species of animals and plants, but they often have a harsh effect on the local people.

Chitwan, established in 1973, as Nepal's first national park, has helped to restore depleted populations of tiger, rhinoceros and other animals. At the same time, the park animals have caused loss of human life, livestock and crops. An estimated 30% of the tiger kills in the area are domestic cattle. Between 1978 and 1982 eight people were killed, three by one tigress. Enraged villagers forced the park authorities to shoot the animal to prove they valued human life.

Villagers resent being no longer allowed to graze cattle in the forest, and being prohibited from collecting firewood, honey and other forest produce - particularly as foreign tourists roam freely in the park. Tourism in Chitwan has generated a few new jobs but has pushed up prices, particularly food prices, very sharply. The poor desperately need the park's resources to survive, and conservation has no meaning for them if it does not help their lives.

Source: *Earthscan*, December 1982.



# EARTH NEWS

## Transition

Campaign Against Nuclear Energy, South Australia, have moved office to 291 Morphett Street, Adelaide, SA 5000. Tel: (08) 51 3821.

The Transnational Cooperative (TNC) workers research centre has moved to Floor 9, Teachers Federation Building, 300 Sussex Street, Sydney, NSW 2000. Postal address is GPO Box 161, Sydney, NSW 2000. Tel: (02) 264 3330.

The ACTU Working Women's Centre has moved to ACTU House, 393-397 Swanston Street, Melbourne, Vic 3000. Tel (03) 347 3966.

## Antarctic conflict

Antarctic Treaty nations have just concluded their second round of negotiations to establish an institutional framework for mineral and oil exploitation in Antarctica.

The meeting in Wellington, New Zealand, was mainly concerned with discussions of the conflict between claimant and non-claimant nations over sovereign control of the resources and potential conflict with non-Treaty nations, particularly countries of the Third World.

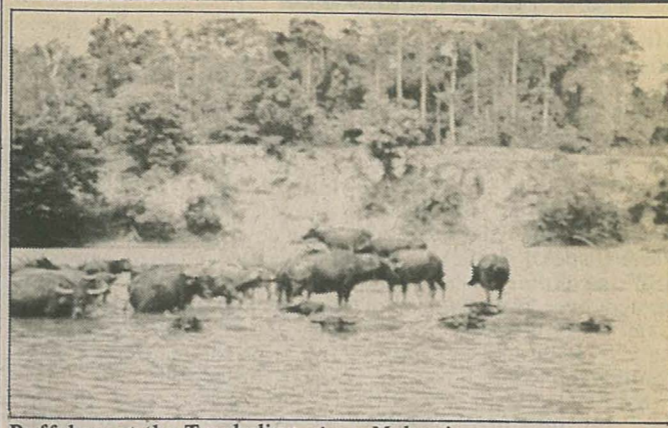
For the environmentalists in Wellington it was clear that there was sufficient evidence that the Antarctic Treaty nations cannot be trusted to protect the Antarctic ecosystem. The only guarantee of this would be in declaring the area a World Park. Such a designation would also have the effects of both resolving the major discord between the parties over sovereignty and appeasing the Third World, who presently see development as benefiting only the rich countries which are party to the Treaty.

## Solar breeder

The world's first photovoltaic 'solar breeder' was recently started up in Frederick, Maryland, USA. The solar panel manufacturing plant uses only the power provided from the solar cells mounted on its roof. The breeder's photovoltaic panels cover 2600 sq m of the 40 degree sloping southern roof of the building. The breeder has no connections to any electric utility.

Officials at the plant say that the cells generate enough electricity to run the manufacturing operations and all its office needs such as lights and typewriters. Heat, stored in batteries, can provide power for four consecutive days without sun. Everything in the facility will operate either directly from the solar cells or from the batteries.

Source: World Information Service on Energy, 10 December 1982.



Buffaloes at the Tembeling river, Malaysia.

## Dam stopped

Malaysian conservationists are delighted over their government's decision to abandon the Tembeling Hydro-electric Project.

As reported in *Chain Reaction* Spring 1982, the dam was first proposed in 1971, but was shelved in 1978 after studies by Soviet and Australian teams. The Tembeling dam was to stimulate industrial development in the state of Pahang, control flooding, and provide a rationale for widespread logging. It would have been constructed in Malaysia's only national park, the Taman

Negara, which is particularly rich in flora and fauna. About 7% of the park would have been flooded, about 70% of the ecologically valuable lowland area, submerging archeological sites and displacing villagers.

Malaysia's Deputy Prime Minister announced that the Tembeling project was dropped because the nation's energy requirements could be met with existing hydro projects and the exploitation of natural gas resources. However, it appears that the considerable opposition to the project, and 'environmental factors', played a part in the government's decision.

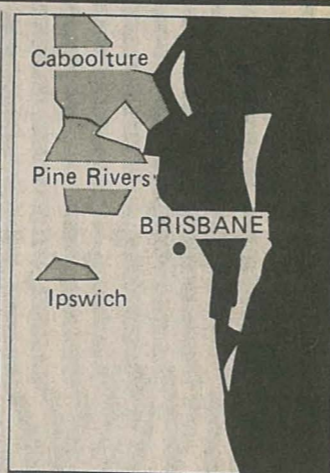
## Enrichment opposition

The shires of Pine Rivers and Caboolture and the City of Ipswich in Queensland have declared themselves nuclear-free zones. The declarations are in response to proposals for a uranium enrichment plant in the region.

The declaration of Ipswich as a nuclear-free city has the full backing of the Ipswich Trades and Labor Council, with all unions being asked to recognise the declaration and refuse to handle uranium being transported through the city.

Caboolture Shire chairperson Alex Barr has spoken out very strongly against plans for an enrichment plant, saying it would place a blight on the town.

South Australia has also been proposed for the siting of an enrichment plant, but it seems unlikely at present. The premier of SA, John



Shires declared nuclear free zones.

Bannon, met with groups interested in uranium enrichment in November 1982, and afterwards commented that his government would reject any finalised proposal for an enrichment plant if it were offered then.

Source: Campaign Against Nuclear Power Newsletter, January 1983.

# BACKSTAGE



RUTH FORD

Melbourne and Sydney collective members at work during the final stages of production. From left: Tim Darling, Linnell Secomb, Richard Shelton, Keith Redgen, Judy MacDougall, Jonathan Goodfield, Trish Luker, Peter Gravier.

## Collectively speaking...

Have you spotted the difference? *Chain Reaction* is now edited and administered by the joint collectives of Melbourne and Sydney. As part of this major change in structure and management practice, weekly collective meetings in Melbourne now make all decisions regarding editorial content and policy, as well as general policy decisions about administration and direction. The Sydney collective, now contributing *Earth News* and *Reviews* copy for each edition as well as other material, is consulted frequently. Joint collective meetings, held after the publication of each issue, discuss and make decisions regarding future content, policies and direction of the magazine. Both collectives are open to all ongoing workers of *Chain Reaction*.

But why did we decide to establish a collective? And, come to think of it, why do so many other political groups choose to work within some form of collective structure? The obvious general answer is that, in theory anyway, collectives allow each member to share in the decision making and the responsibilities of the group. However, in practice that theory (like any other!) needs to be talked about a lot before any attempt is made to apply it. Otherwise the new structure can be just as misunderstood, alienating, and open to manipulation as whatever bad old hierarchic structure came before. So the answer for *Chain Reaction* (to why we formed a collective, how we formed it,

and how it functions now) needs to start by detailing how our previous structure worked.

Prior to CR 30 the collectives were involved in discussion of content and administration but ultimate decision-making power rested with the appointed editors. This type of structure had worked well for over two years, during which time there was a steady increase in the number of people working on the magazine and becoming involved in the collective. Many of the Melbourne collective members had been involved with *Chain Reaction* for a year or more, and the editors had always emphasised the importance of involving as many workers as possible in discussions at our weekly meetings. Consequently we had a group of people who were used to working with each other and who had a good understanding of the overall development and workings of *Chain Reaction*. In a sense it was an obvious next step to allow each collective member to also be involved in making decisions about the magazine they worked for.

That next step took place during the production of CR 29. A serious disagreement arose amongst the collective and the editors concerning the choice of the cover story, and the design of the front cover. The questions which that dispute raised about *Chain Reaction's* editorial content involved every member of the collective, and in

resolving the conflict the idea that each member of the collective should be able to take part in editorial and administrative decisions was discussed and eventually agreed on. We then set about working out how to establish such a collective and how it should function.

The first thing needed was a lot of talking. So we had meetings and more meetings, normal meetings and special meetings, in an attempt to discuss and create an on-going awareness of the form of collective to be used and the difficulties we would need to be aware of in the ways we all worked. We agreed fairly early on to make decisions by a simple majority vote, and that anyone had a right to refuse to do work they disagreed with which had been supported by the rest of the collective. Eventually we came up with a structure to be used to produce CR 30, after which it would be reviewed. Our very first editorial collective was a closed one, with membership limited to those workers prepared to commit themselves to regularly attending meetings. Other workers were always able to attend meetings and take part in discussions, but they were not entitled to a vote.

After CR 30, at the joint collective meeting in Sydney, the review of the collective indicated a need for some change. Although the general concept had worked well, the number in the Melbourne collective was small. Also, the requirement of regular meeting attendance had restricted some workers from being in the collective, when the purpose of the change in structure had been to include all workers in decisions. So we changed the collective once again, to its present form: an editorial and administrative collective open to all ongoing workers of *Chain Reaction*.

Which brings us up to the here and now, and even to what could happen in the future. If the collective is to keep functioning well and to help develop sharing of ideas and responsibilities within *Chain Reaction*, it's going to need at least two things: a continued discussion within the collectives about the structures we use and the ways we work within them, and more people to help us work! So, if anyone out there is interested in working with us at *Chain Reaction*, write, ring, or drop in and we will make you more than welcome! And there is plenty of time to learn the ropes, as we have recently been appointed by Friends of the Earth Australia for a two-year term to edit the magazine collectively. Wish us luck.



# Communications technology DISCONNECTING THE

The introduction of new technology is changing our workplaces, our homes — our social environment. Moves by private enterprise to win control of the new communications systems and information services threaten the viability of existing public services, and will restrict access to those who can afford it. Ariel Couchman looks at some of the new communications technologies, how they will be used and who will benefit.

As we are repeatedly told, we have now entered an era of large-scale technological change. Since the development of the electronic computer in 1946 and its relatively recent miniaturisation onto the silicon chip to create the microprocessor, a vast array of complex computer technology has evolved. These developments have made possible rapid calculation and rapid communication far beyond average human capability. In our everyday lives we regularly come into contact with a range of computerised services — electronic checkouts, computerised library systems, 'handy' banks, etc. We have become acquainted with the black and white striped bars ('bar coding') on all supermarket goods which will eventually enable electronic re-ordering of stock from fully automated computer warehouses via point-of-sale terminals.

As workers we are all too familiar with video display units and word

*Ariel Couchman is a student at Monash University and has a long-term interest in the social effects of new technology.*

processors, the possibilities of fully electronic offices and of electronic mail transfer and newspaper distribution. More recently, microprocessors have been extended to visual and data transmission. Beyond the telephone, the technology has been developed for plugging into the telephone network to gain access to computerised information services, to receive television programs and to transfer letters, bills and money. The talking-screen and programmed-workplace world of the Jetsons no longer seems so remote.

This 'new' technological age has brought with it wild predictions of the effect it will have on humanity. Many people already lament the passing of the personal and erratic human society with the advent of the all-computerised age.

We are invited by some pundits to picture the family home, in which the nuclear family and sexual stereotypes remain wonderfully unaffected by the surrounding changes. Dad is working at

a computer terminal linked to the office. Mum is shopping and keeping medical histories and recipes on her (well, probably his) computer. The children are learning from satellite-broadcast educational programs and entertaining themselves with video games. And they all communicate via electronic mail and pay their bills with electronic cash transfer. So aghast at this picture was one commentator that he concluded, 'Without the need to leave the home, people may resort to electronic communication as their socialising medium — with WHATEVER CONSEQUENCES!'

These examples illustrate a tendency to be simplistic when judging the costs and benefits of the technological age. It is assumed that a technology has inherent qualities which make it either good or bad, an assumption which only encourages a division between anti- and pro-technology extremes. Certainly the sophistication and speed



## PUBLIC

### Who is taking control?

We cannot forget that we live in a society governed by the dynamics of capitalism, which is based on the need to continuously expand and modernise so that profits and security can be maintained. To do this it must be possible to transform labour processes and redistribute labour at will. Many technologies are being introduced to create new markets, to invigorate old ones, and in some instances to increase supervision of work processes and of the workers themselves.

These dynamics can be seen in the emergence of the information technology or 'interconnect' market, resulting from the convergence of two previously distinct commercial areas — computer technology and telecommunications. The interconnect market includes such information services as videotex and teletex. Its emergence has also illustrated the immense pre-planning, lobbying and marketing that is behind a 'spontaneous' technological development. The interconnect market has derived much of its 'newness' from the concept of 'user-pays' in the provision of information services. It is more a marketing exercise, than a technological revolution.

The conflict between Telecom, the major provider and regulator of telecommunications in Australia, and those interested in 'opening it up' to private enterprise, compounded by a general public concern about privacy and access to information, has created an awareness that it does matter how, and by whom, these new technologies are introduced. There have been two recent government inquiries: the

which characterise many microprocessor-based technologies warrant concern that it all may become just too fast and too impersonal to allow widespread access or control. The sheer quantity of information accessible by computers, and the possibility of centralised control of these resources, are well-attested in the use made by military institutions of such technology to dominate the communication system and to maintain surveillance.

However to look only at the inherent qualities of technologies is misleading. It ignores the context in which new technology is introduced. It fails to consider how and why it is being used and for whose benefit. Furthermore most optimistic visions of the technological future assume that everyone will have equal access to the hardware and networks required for the new communications technology. It is naive to believe that technology will remove present inequalities in the distribution of resources and access to information.

The establishment of Prestel in the UK has generated interest around the world in the commercial potential of computer-based information services. Prestel's marketing emphasises the benefits to business.

Australian Broadcasting Tribunal inquiry into cable television and radiated subscription television, and the Davidson Inquiry into telecommunications. The submissions presented at these inquiries showed clearly the intention of the media magnates and business consortia to enter and control the field of interconnect technology without concern for the general public.

The recommendations of both inquiries, though cautious and qualified, virtually gave the go-ahead for the dismantling and deregulating of Telecom. The Broadcasting Tribunal proposed that Telecom not be the common carrier for cable television, while the Davidson inquiry recommended that Telecom be divided into two companies, one to handle all functions relating to the national communication network, and the other to handle the sale, installation and maintenance of terminal equipment. The intention of such restructuring is obviously to facilitate the future disposal of profitable areas of Telecom to the private sector; Telecom and public funds would maintain a considerable subsidisation in the form of basic capital outlay, including the future domestic satellite, while profitable areas would be taken over by 'free enterprise'.

The irony of the Liberal government's attempt to gain credibility by fighting the 'evils' of monopolies like Telecom and by promoting the principle of small government and free markets lies in the composition of the free enterprise forces raring to go. Amongst these is the computer giant IBM Australia, assisted by its USA parent which has had considerable experience in contesting the markets of the world's largest telecommunications company, American Telephone and Telegraph. IBM has been instrumental in creating the business consortia, Business Telecommunications Service Pty Ltd in Australia (BTS) and Satellite Business Systems (SBS) in USA. Both BTS and SBS have vigorously lobbied their respective governments for a reduction of state control of telecommunications to allow private sector involvement.

BTS originally consisted of eleven companies: they were joined by BHP in 1981. BTS members are:

- IBM Australia
- Amalgamated Wireless Australasia Ltd (AWA)
- Ampol Petroleum Ltd
- Australian Consolidated Industries Ltd (ACI)
- Australian Mutual Provident Society (AMP)
- CRA Ltd
- CSR Ltd
- James Hardie Industries Ltd
- Publishing and Broadcasting Ltd (Kerry Packer)
- The Myer Emporium Ltd
- Thomas Nationwide Transport Ltd (TNT)
- Broken Hill Proprietary Ltd (BHP)



BTS has lobbied for the installation of a domestic communication satellite in Australia. Although feasibility studies conducted by Telecom throughout the 1970s indicated that the cost of a domestic satellite was not justified, and was unnecessary in the light of recent development in their land-based network, the contracts have been signed: the forecast is for a domestic satellite in 1986. The strength of BTS's influence has been shown. Since its successful lobbying, BTS is almost defunct as a consortium, but its members will dominate the services generated by the satellite.

And there are more singular interests at play. The Myer Emporium has expressed interest in the videotex system as a means of electronic shopping and for internal business systems. David Jones wants cable television for specialist services including security systems and electronic games. Communications Facilities Pty Ltd, which includes John Fairfax, David Syme & Co Ltd, Davies Bros, Queensland Press, Standard Telephone and Cables Pty Ltd, and the Herald and Weekly Times Ltd, are interested in using cable for electronic newspapers. The Packer organisation, a member of BTS, is seeking considerable control and lease of the domestic satellite to allow direct broadcast of television to homes nationally, without using Telecom as a carrier for the signal.

Big business' interest lies in the ownership and control of transmission lines to specific markets. Contrary to public relations exercises which claim there will be more extensive communication services if the private sector is involved, the need for commercial viability will ensure that competition only occurs in areas already well-served such as intercapital routes and wealthy middle class suburbs. Private ownership



Examples of Telecom providing services in low profit areas: above, telephone for the disabled; below, a public telephone provided for the Moomba gas pipeline construction party at Whyjonta in New South Wales.

of major networks will greatly impair Telecom's ability to subsidise unprofitable services such as those to rural telephone subscribers.

In the face of threatened cut-backs and the recommendations of the Davidson inquiry there has been a tendency to defend Telecom in the name of public control of communications. This protectiveness should not detract from a critical examination of Telecom's role in introducing new technologies. There has always been a major contradiction between Telecom's claim of acting in the public interest, and its remarkable lack of consultation with its own employees about the introduction of new technology within Telecom.

## What is the technology?

### VIDEOTEX

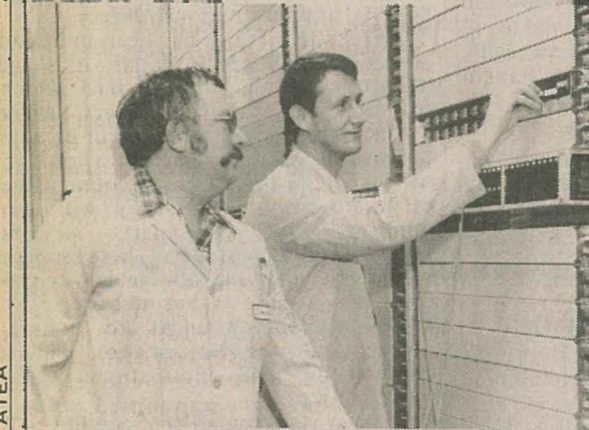
is one of the simpler interconnect technologies, which links computer equipment to the existing voice transmission (telephone to you and me) network. Using a keypad connected through telephone cables to a central computer, a person can view information on a slightly modified television set. The information that could be provided includes advertising, weather, sporting results, news, legal advice and transport timetables. Some systems also enable simple graphics to be transmitted.

Telecom researched videotex in 1980 and proposed that a public videotex service be established, with Telecom providing the computer or information storage system, and inviting advertisers and other information-providers to 'buy space', that is, put information on the computer's data base. Telecom

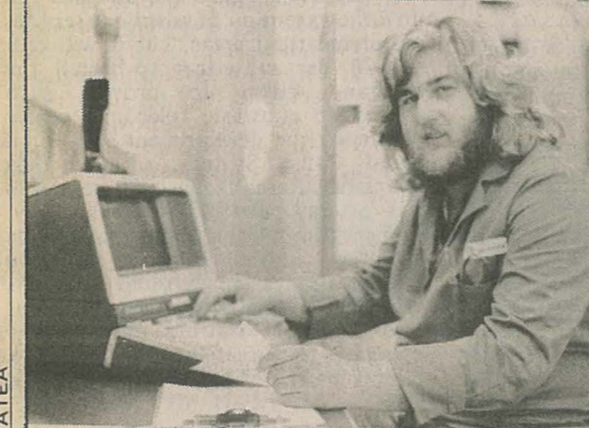
The Australian Telecommunications Employees Association has long battled with Telecom over the introduction of job-cutting telecommunications technology. The effects of the new technology on numbers employed in Telecom exchanges are shown below.



Step by Step exchange: first introduced in 1915. For an average telephone exchange of 10 000 lines, 15 people would be employed.



Crossbar/ARN exchange: Step by Step exchanges began to be replaced with this technology in 1960. An average exchange would employ 7.5 people.



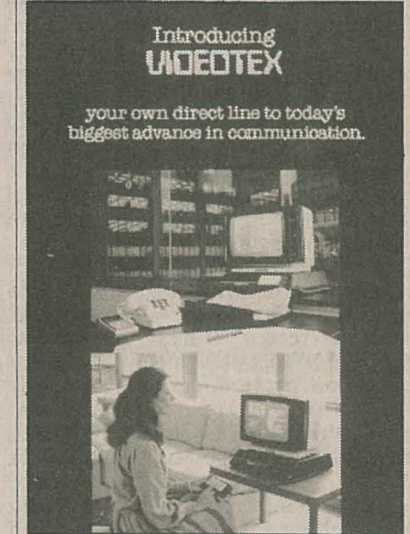
ARE/11 exchange: the components of the Crossbar/ARN exchanges began to be converted to computer in 1978. An average exchange would employ 4 people.



AXE exchange: replaced Step by Step, and all new exchanges introduced since 1980 have been this fully computerised exchange. An average exchange would employ only 0.5 people if Telecom's proposal for centralising control of exchanges goes ahead.

would profit from the lease of the data base, and from the use of the phone network. Information providers would make their dollar by selling information to the consumer. As a person viewed a 'frame' of information they would have been made aware of the cost and charged accordingly.

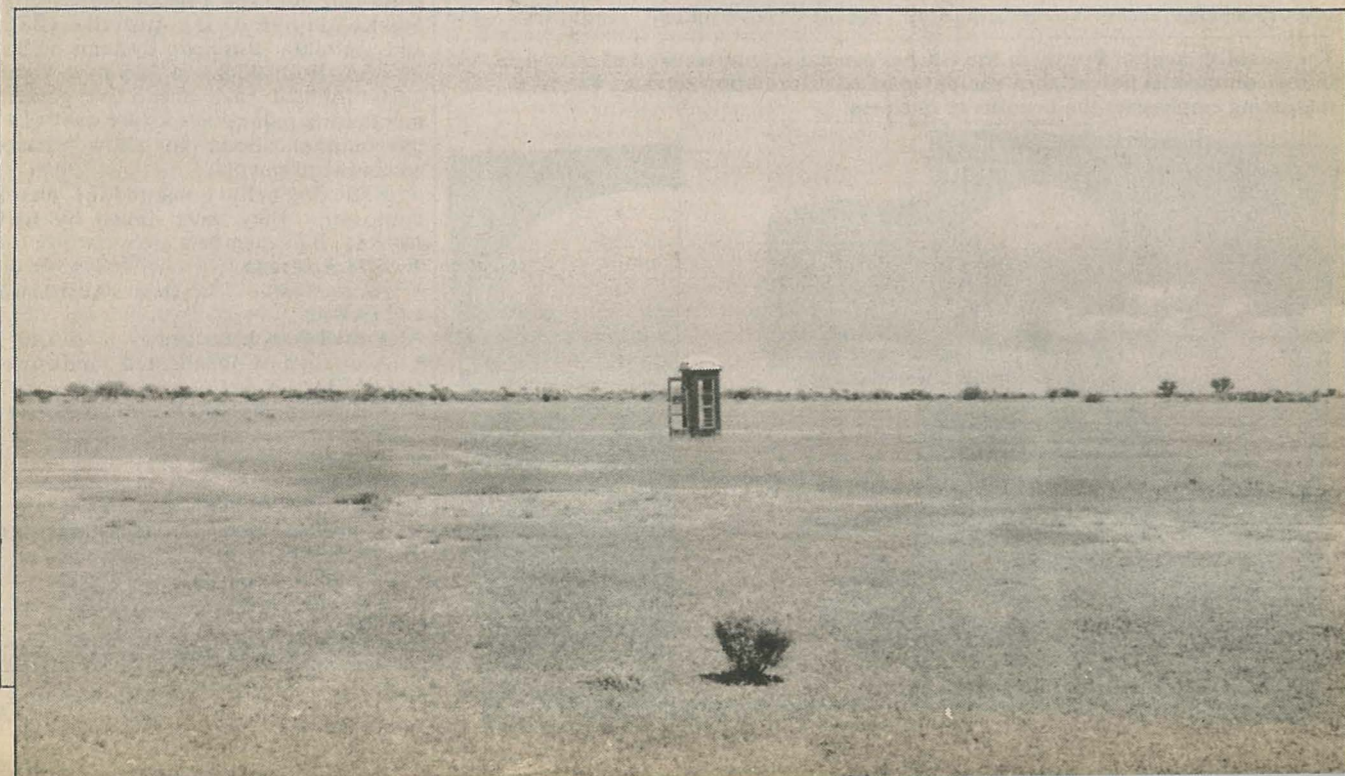
Due to the limited carrying capacity of telephone cables, the inconvenience of not having use of the phone when using videotex, and the high cost of anything more 'intelligent' than a keypad terminal, the interactive (i.e. two-way 'dialogue') capacity of the Telecom proposal was not great. The viewer could book a seat, respond to simple games, buy goods, or search the data base for specific information using 'yes' and 'no' responses - but not much more.



Publicity material for Videotex, Telecom's proposed Australian computer-based information service.

All of Telecom's advertising material emphasised the necessity of this new commodity to modern communication. Videotex was heralded as 'your own direct line to today's biggest advance in communication'. Because of the relatively low establishment and operating costs, Telecom envisaged that access by a variety of community groups and organisations such as citizens advice bureaus would be possible.

However from the start there were no doubts amongst those researching its feasibility that this new service would rely predominantly on businesses to provide and use the information, although it would require wide public use to be commercially viable. Consequently there was little attempt to consult community groups about their needs or to ascertain their views on possible applications, which contrasts sharply with the deliberate concentration on informing and coaxing business interests, and the aggressive marketing and gimmicks used to convince the public that they needed videotex. The ready availability of much of the





information that would be accessible through videotex, in existing media such as newspapers, was ignored. Problems in up-dating and correcting data remained unresolved.

Telecom's proposal was rejected by the then minister for communications, Mr Sinclair, because a public videotex service could be profitably provided by the private sector. Myer Emporium and other corporations interested in videotex see the commercial potential in installing their own cables and restricting access to those who can afford to pay for special services such as electronic shopping.

#### TELETEX

is another interconnect technology whose development has been limited by commercial considerations. Like videotex, teletex produces static 'frames' of information viewed on a slightly modified television set. However the frames of teletex are broadcast as part of a normal television signal, which limits the amount of information available and the speed with which it is received. At present a commercial station in Sydney is experimenting with a teletex news service.

The most publicised potential benefit of teletex is in providing subtitles to television programs for deaf persons. Despite a recent federal government grant to deaf people's organisations for research on captioning, and claims by advocates of videotex and teletex of the immense benefits for deaf persons, there is little likelihood of such a service if left to private interests. In terms of saturation marketing, there are simply not enough deaf people to warrant such a service.

During Telecom's investigation of videotex and teletex there was inadequate consultation with deaf persons on the applications of these technologies, highlighting the narrow parameters of interest and control which determine how such technologies are introduced.

#### CABLE TELEVISION

is like 'normal' broadcast television, except that the program signal is sent through a cable network connected to the viewer's television receiver. It allows the transmission of a large volume of data beyond the capacity of the existing telephone network or the range of direct broadcast. Unlike the more personal and interactive networking used for telephone services, cable television is basically one-way communication. The program signal is fed in at central locations and several channels can be carried on the one cable.

Most commercial interest is in the development of pay-television, a system in which the viewer would pay to see a particular program. Pay-television allows for advertisement-free programs, first-release films and specialised entertainment.

That is the conventional picture of

how cable television would operate. Alternatively there is potential for a cable system to benefit the whole community, not just those who can afford a home connection and pay-television. Community-based terminals located in libraries and schools could provide specialist services such as language programs at a low cost. Cable television also has the potential to make television programming and production more accessible than it is at present.

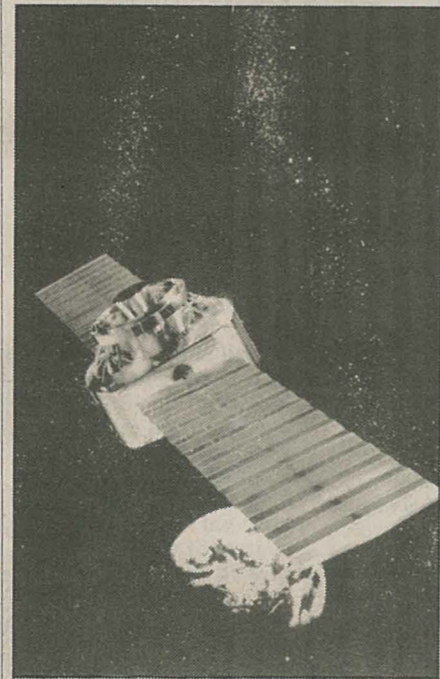
The likely result of a privately owned and controlled cable television system is not only a very limited service - it will only be commercially viable in a few large cities - but a serious threat to the present 'free' broadcasting services. This would mean even less variety for those who cannot afford cable.

As with videotex, cable television will only be commercially viable in already well-served areas. The managing director of David Syme & Co, Ronald MacDonald, recently confirmed this prediction:

There are problems with cable that it will develop to the advantage of the few in areas where a quick pay-off is possible, and then the government will have to step in later with incentives to cable other less attractive areas. (*Communications Australia*, December 1982)

#### SATELLITE COMMUNICATIONS

are assumed by many people to be the inevitable next step in the development of communications. It is forecast that Australia's domestic communications satellite will be in use by 1986 at a cost of \$350m. Contracts have been signed and the majority share strategically offered to AUSSAT, a government statutory body set up to manage the



Canada's domestic communications satellite.

satellite. The other 49% has been left open to private interests. The private share will be most likely in the form of leases of transponder (or broadcasting channel) space.

The satellite's loudest advocates are large corporations and media consortia which are seeking cheap long-distance communications links, and a monopoly over a communication system package without the regulation and restrictive licensing that has up to now characterised most communication systems in the world. Media magnates are interested in reaching markets presently controlled by local and regional television and radio, and in establishing a national news network which would allow instant and centralised news distribution. In addition, most large corporations want cheap connections between their national and international offices.

After the satellite has been built and launched with public funds, it is the private consortia such as BTS which will benefit. Consortia members, having avoided the capital outlay, will be able to have national coverage at a fraction of the capital cost of underground cable or microwave routes. They will also dominate the secondary services generated by the satellite. These services include the carrying of signals received from the satellite to business-users, the provision of equipment to collect, process and store information, video-conferencing and international computer link-ups.

It has been argued the satellite will allow the extension of telephone services to isolated rural areas, but it will cost \$40 000 per subscriber to install the telephony dishes to provide such services. In contrast, Telecom recently announced the development of a Rural Digital Radio System, a much less expensive alternative which combines solar energy and radio technology. Further it should be noted that private enterprise, unlike Telecom, will be under no obligation to service all areas with comprehensive communications networks. Earth stations for transmitting signals to the satellite are unlikely to be built in other than densely populated areas.

Judging from the experience of the USA ATS-6 satellite, there is little likelihood of greater variety or improved technical quality in communications. Existing services will be duplicated or, as in the case of regional television, supplanted. Justifications for the satellite like 'reaching the isolated' or 'providing national coverage' wear very thin.

Although the satellite will offer the communications equivalent of the eight-lane freeway, for the average telephone subscriber and television viewer the likely impact is, as Ian Reinecke, publisher and editor of *Communications Australia*, suggests: the 'wider dissemination of a message of increasingly doubtful value'.

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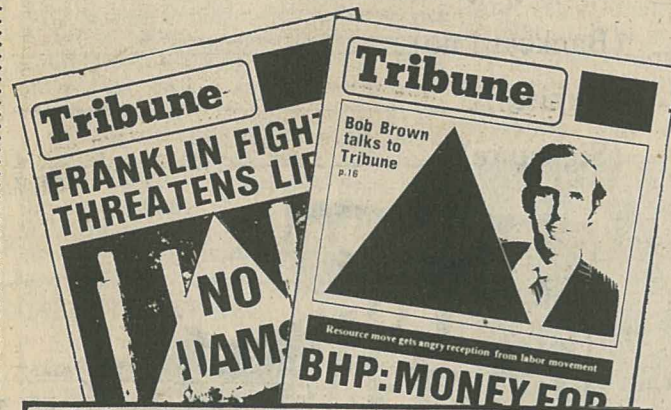
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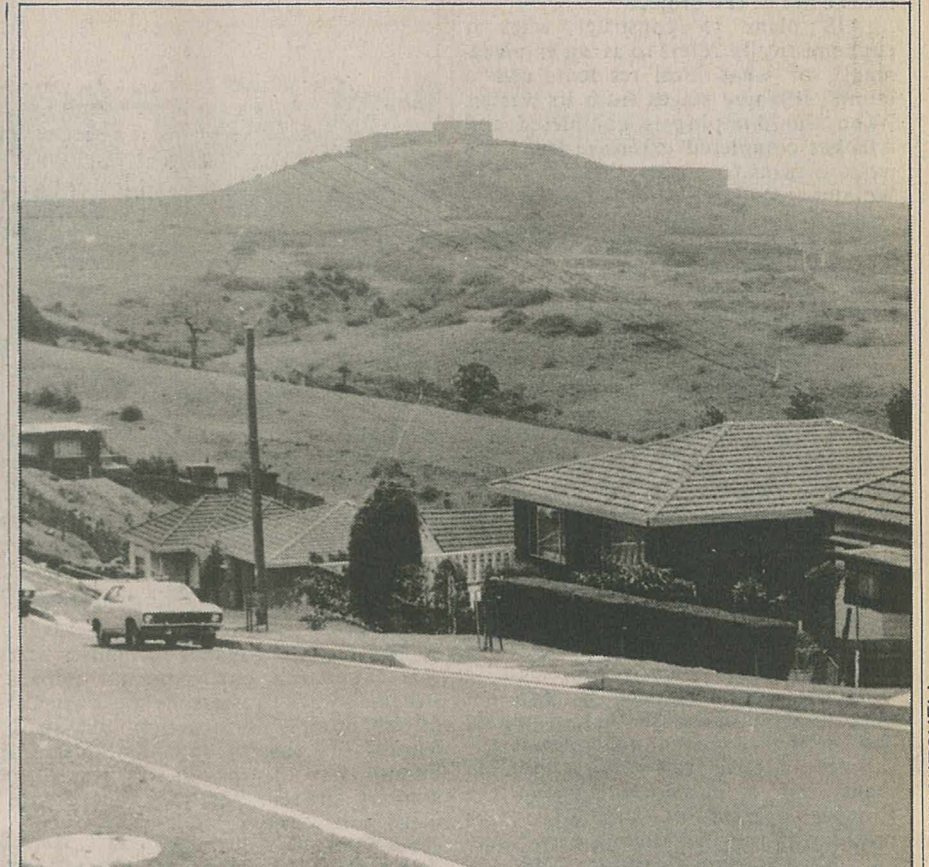
# AIS tells residents to cough up or no jobs

Australian Iron & Steel, a wholly-owned subsidiary of BHP, has been proposing a 7 million tonne coal-waste dump next to the public school in Cringila, a working class suburb in the Port Kembla area of Wollongong. A public inquiry to consider the company's development application was to have commenced on 14 February 1983. However on 28 January AIS asked that the inquiry be deferred for six months so they could look at an alternative at Wongawilli, 15 kilometres from Cringila. While public protest has gained this victory, pressure must be continued to ensure that AIS doesn't simply announce to the inquiry that the Wongawilli site is unsuitable.

In this article, Glenn Mitchell describes the extent of industrial air pollution in Port Kembla and its effects on the respiratory health of residents, and outlines the problems faced in researching this relationship. In particular he looks at how the proposed coal-waste dump would increase the threats to the health of Cringila residents.

Measurements of air pollution deposits taken in the late 1950s clearly established that 'a significant pollution problem' existed in New South Wales.<sup>1</sup> Readings from deposit gauges in the Port Kembla area in particular defined the industrial suburb of Cringila, located on the western side of the AIS complex, as the most polluted area in New South Wales. In 1960 Dr A Bell, Director of the

*Glenn Mitchell is an environmental historian in Wollongong who recently completed a doctoral thesis on the history of industrial pollution at Port Kembla between 1900 and 1970. This article is an updated and edited version of a paper presented to the Sociological Association of Australia and New Zealand Conference in Sydney in August 1982.*



Looking north west to the hillside which will be built up with 7 million tonnes of coalwash and blast furnace wastes, if AIS's proposal goes ahead.

Division of Occupational Health in the NSW Department of Public Health, surveyed 947 residents in East Port Kembla. While Bell found that residents in one area of the surveyed suburb experienced a high incidence of chronic bronchitis, mucoid or mucopurulent sputum, and cough and phlegm compared with residents in the control area, Bell argued that his results were inconclusive. He said, 'It must not be assumed that this investigation has conclusively proved a cause and effect relationship between the prevalence of chronic bronchitis in East Port Kembla and atmospheric pollution.'<sup>2</sup>

Bell's was the first and last survey examining any group of residents in

those suburbs adjacent to the Port Kembla industrial complex.

The 1969 Senate select committee report on air pollution noted that one of the reasons for the lack of conclusive evidence both overseas and in Australia was 'the extreme complexity of the problem'. However, the committee also noted that:

there appears to be a world-wide correlation between high levels of air pollution and a high incidence of a number of diseases. The degree of correlation is certainly sufficient to attribute some cases to pollution. Diseases correlated in this way include bronchitis, pneumonia, pleurisy, asthma, pulmonary emphysema and lung cancer.<sup>3</sup>

GLENN MITCHELL



## Health effects of the Cringila coal dump

► If the proposed Cringila coal-waste dump is established, AIS will dump 7 million tonnes of coalwash wastes, steel slags and blast furnace slags in a valley adjacent to the Cringila Public School. The company estimates that the dumping will take between three and five years; even longer if the company's steel market remains depressed. The dumping of these wastes will require at least 640 truck journeys per day; a minimum of 500 000 truck journeys for the life of the project.<sup>4</sup>

AIS plans to construct what it euphemistically refers to as 'an emplacement', or what local residents call 'a dump', in three stages from its wastes. When the dumping is completed and AIS has completed extensive landscape work it plans to donate the area to the Wollongong City Council and Cringila residents for use as a recreational area. According to a Community Information Service brochure prepared by Wollongong City Council to explain the company's proposal to Cringila residents:

an important aspect of the proposal is that, upon completion, the land will be available to the community for a variety of recreational purposes — playing fields, barbecues, picnic areas, walking trails and cycling tracks.<sup>5</sup>

In the document which accompanied its development application (which is an unofficial environmental impact statement), AIS defines its proposal in the following terms:

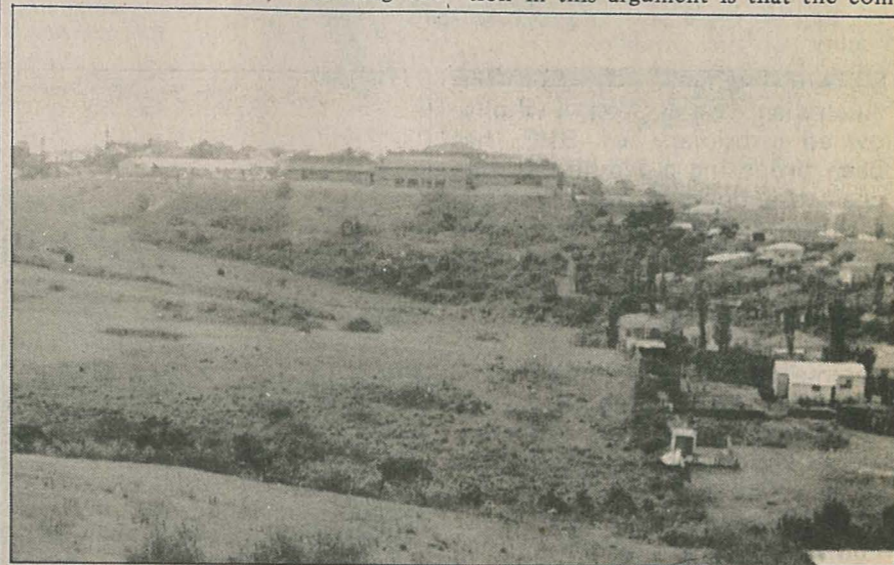
... it is intended to provide yet another community facility by turning a relatively unused portion of land into a valuable mixed recreation facility.<sup>6</sup>

In its public statements, AIS has kept to its proposition that the dump will neither threaten nor despoil the suburb's natural and human environments. At a public meeting in the Cringila community hall and at a meeting of the Wollongong City Council's Environment Committee, an AIS representative made the extravagant claim that 'not one ounce of dust' will fall on a single house in Cringila during the life of the dump's construction. Either residents will witness a technological feat never before performed by AIS or the company has considerably over-stated its position.

Neither AIS's unofficial environmental impact statement nor a report compiled by Wollongong City Council has addressed the hazards to the suburb's respiratory health posed by the construction of the dump. The environmental impact statement refers only to noise hazards and lists noise level measurements carried out, not by an independent testing authority, but by AIS. This document treats air pollution,

its effects and control in less detail than the anticipated noise pollution. In four paragraphs the environmental impact statement dismisses air pollution from major consideration.

AIS proposes, however, to licence the dump as a 'scheduled premise', a procedure usually reserved for premises such as metallurgical works, coke ovens and other industrial plants licensed under the Clean Air Act. This registration as a scheduled premise indicates that AIS expects a considerable amount of dust pollution both during and after the dump's construction. It will also be licensed as a scheduled premise under the Clean Waters Act, indicating the



The proposed site, looking north towards Cringila Public School. The school was built on a 'rehabilitated' coalwash dump; the trees around the playing field are very stunted.

expectation of considerable water pollution also.

The Council's report recognises that the company's environmental impact statement fails to assess the social aspects of the dump's construction. But apart from noting that the effects of dust and odours on the health of residents, workers and children are some of the many concerns expressed by opponents, the report goes no further.

Unlike previous environmental excesses experienced by Cringila residents, they have not accepted this offer by the company to construct a large recreation area. Residents have formed a protest group called the Cringila Coalwash Protest Committee, which numbers among its members: trade unionists, residents, academics, and what one Council alderman called 'rabble-rousing ratbags' from outside the suburb. This coalition of interests opposed to the dump faces a daunting challenge. Not only is there little qualitative medical evidence on the health of Cringila residents, but in addition residents obviously lack the power and influence of 'The Big Australian'.

BHP sees the disposal of coalwash wastes, blast furnace slags and steel

slags as one of the many problems currently facing its AIS steel division. AIS says that if no coal washery discard or steel slags are produced, then 20 000 AIS employees will lose their jobs. The company further argues that this loss of employment would have serious social and economic consequences in the Illawarra region. This argument neatly encapsulates the AIS strategy. The company threatens its workers with unemployment and the people of the region with the burden of this social problem on their conscience should either group oppose the method or place of disposal. The hidden assumption in this argument is that the com-

pany will not be able to operate if this particular site is rejected.

Although AIS has now been forced, by community opposition, to look at an alternative site at Wongawilli, it is possible that this is simply a tactic to defuse the opposition and that the company will inform the inquiry that the Wongawilli site is not economically viable. Interestingly, AIS has previously claimed that no alternative sites were available.

The company threatens unemployment if the dump does not proceed on its terms. It also promises a clean environment during the construction of the dump. Despite the absence of reliable epidemiological evidence, and serious difficulties in the use of available data, there is sufficient circumstantial evidence to dismiss the company's claims of corporate generosity and environmental concern.

First, what validity, if any, can be attached to the company's claims? This is the company which, in its written submission to the NSW Government Inquiry into Occupational Health and Safety (the Williams Inquiry), stated that at AIS 'persons are not only protected from work-induced disease

or injury, but also have access to positive health promotion'. In the light of a report by a former NSW Minister for Health, Mr K Stewart, on coke oven emissions from the AIS plant, which reported that 'the risk to health by induction of cancer was accepted as a reality, without question',<sup>8</sup> one can justifiably question the company's claims regarding any proposal which concerns its employees or nearby residents.

Second, evidence from the company's environmental impact statement shows that fallout of industrial dust pollutants up to 1975 was higher than levels recorded in inner suburbs of Sydney.

Finally, a preliminary analysis of morbidity statistics of Port Kembla Hospital for 1977-79 indicates that residents of Cringila, Lake Heights and Warrawong experience respiratory problems which a coal-waste dump will not improve. In 1977, residents from Cringila and Lake Heights accounted for 15% of all admissions for the pollution-induced or pollution-aggravated problems of acute and chronic sinusitis, chronic bronchitis and emphysema. The suburbs of Warilla, Lake Illawarra South, Barrack Heights and Barrack Point, 8 kilometres to the south of the industrial complex, accounted for 29% of admissions for the same problems. By 1979, a different admission pattern had emerged: Cringila residents accounted for 28% of admissions, while the other suburbs accounted for 13%. Although the actual number of admissions is small, it is the proportion which is important.

## Problems in air pollution research

Harry Rothman, a prominent English zoologist and environmental writer, notes that the concept of toxicity is an extremely difficult one to understand. Moreover, this complexity, he argues 'is often used as a pseudo-scientific cloak behind which governments, industrialists and others shelter in their efforts to avoid legislation which would inhibit their "right" to pollute.'<sup>9</sup> The unravelling of the complex relationship between pollution and health would allow the exposure of those who seek shelter behind 'a pseudo-scientific cloak' and the apportioning of blame to guilty parties. In the specific case of Cringila, researchers confront many problems.

Pre-1977 morbidity statistics for hospitals in the Illawarra region are not on a computer. Researching pre-1977 data involves the examination of inpatient admission cards at the hospitals. Even the use of the statistics on computer is limited because financial restrictions may not permit researchers to adequately use this information.

Even unlimited access to morbidity

information will not provide a complete picture. Without an extensive epidemiological survey of residents in industrial suburbs, a reliable evaluation of respiratory health is difficult. Questions such as: who lived at Cringila, what was their length of residence, where did they move to and why, what was their medical history before leaving Cringila, did respiratory and/or general health change after leaving, and which countries did residents originally come from, need to be asked.

Residents, many of whom feel intimidated by their employers, especially AIS, are often unwilling to make public or private statements to a



Suburban homes on the edge of the proposed dump site. The steel mills, producer of the wastes and the region's major employer, are in the background.

researcher about their work or living conditions. Their reticence is reinforced by BHP's pervasive public relations exercises which stress the company's generosity and good deeds.

The mobility of the suburb's residents adds to the researcher's difficulties. Until recently, residents regarded Cringila as a transitory suburb. People would live in this suburb until they had the means to move on to suburbs with cleaner environments. Wollongong's current economic situation, linked mainly to the problems in BHP's steel division, is starting to preclude residential mobility. Families are now staying permanently in Cringila, and because of the low rents its housing commands, Cringila is attracting many single parent families.

Cringila residents are predominantly of Macedonian, Serbian, Turkish, Greek and Italian birth. Language and cultural differences between residents and researchers can create further barriers to obtaining information.

AIS appears to be in a winning position. It is a large company with

considerable resources to bring against opposition, and it can use its power as the region's largest employer to advantage. The answers to the preceding questions, however, may change the company's position. If there is a respiratory problem in Cringila, and a survey confirms the circumstantial evidence, AIS will not only be looking for an alternative site and/or means of disposal of its industrial waste, it will also be asked to account for its contributions to serious health problems in the local population. More importantly, the complex relationship between industrial pollution and health will be better understood, allowing causes and

responsibilities to be more readily established.

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# Ecology and ideology

By Ariel Kay Salleh

As Keith Redgen reflects in 'Not Just Green', *Chain Reaction* 30, there is an 'underlying logic' which ties together the environmental crisis, our unworkable economy, the continuing oppression of so-called minorities, and the threat of nuclear extinction. But just what this logic is, nobody is sure. An adequate politics of the environment hasn't been worked out yet. The Marxist approach remedies this lack to some extent by looking at the social relations of production. But socialism, like capitalism, remains a 'productivist' system, preoccupied with the transformation of nature by man for man. I agree with Val Plumwood's description: Marxism is still locked into a 'human chauvinism'. An environmental politics demands more than exposing inequities in ownership and in consumption of goods and resources. It demands a thorough-going reappraisal of the **humanity-nature link**. The economic analysis is very necessary, but it is not enough.

The domination and exploitation of nature, of one person by another, and again the domination of woman by man, these are not unrelated phenomena, and all are equally political acts. The psychological condition of such mastery is that whatever is to be dominated must be defined as 'other', and so lose its individuality. It must be turned into an object. The human capacity to objectify nature and other human beings is an extension of the capacity to objectify and control the self. Historically, this ability appeared when humans first learned to sever their direct sensuous experience of the world from their intellectual process. The first act of control was thus exercised over an 'inner nature'. Freud, interestingly enough, suggested this as the point at which patriarchy became established.

The separation of intellectual and sensuous responses was a basis for the Judeo-Christian tradition, and it gave rise, in turn, to a culture which polarises everything it sees. The dualism of wide,

*Ariel Kay Salleh is a lecturer in sociology at the University of Wollongong.*



green, unruly wilderness versus the imposed human order of civilisation is a keystone of this obsessive and repressive thought pattern. The tendency to dichotomise reality as either/or, good/bad, white/black, culture/nature, man/woman has effectively kept woman 'in her place' as subordinate other too. The scientific method, likewise, is premised on a divided sensibility, the removal of observer from field, isolation of fact from value. Finally, the industrial revolution and modern 'rationalised' administrative practices married this fetish for objectivity with technique. A group of sociologists known as the Frankfurt School have described these developments as the rise of **instrumental rationality**. They see the severance from nature as core principle of the contemporary culture of domination. In such a culture, the world is viewed with abstract detachment, it is measured, analysed, taken part and put back together according to human whim. Questions of value are treated as simple unreflective cost-benefit analyses. Instrumental rational societies may be capitalist or socialist. In either system, technocratic compulsion to measurement and control spills over from the productive sphere to saturate the quality of social relations.

Other humans become mere resources, commodities, to be consumed, manipulated, or exchanged. The very notion of 'a social science' is itself an index of this disembodied pragmatism. As Horkheimer and Adorno put it:

As soon as man [sic.] discards his awareness that he himself is natural, the aims for which he keeps himself alive . . . are nullified. (*Dialectic of Enlightenment*, Penguin, London, 1973, p. 54.)

Some argue that the origin of the denial of connectedness with nature lies in the male's recognition of his seemingly marginal role in human procreation; for it is woman-nature's prerogative to 'produce life'. (Is the productivist ethic nothing but one vast compensatory reaction then?) Under patriarchy, women have indeed been confined to nurturing, but the upshot of the exclusion from the 'masculine domain' is that the 'feminine sensibility' remains less brutalised by instrumental practices. Perhaps this is where the ecology and feminist movements could take a long hard look at what each might have to give the other?

Recognition and critical appraisal of the theory of instrumental rationality is urgent if we are to stop the ever-increasing ecological disaster which follows on 'successful' technological intervention in natural processes. Neither the liberal managerial eco-systems approach nor the planned socialist self-managing alternative are adequate responses. Both only restate and reinforce the same ideological assumptions that destroyed the humanity-nature link in the first place. It is not better 'scientific reason', better 'planning', better 'technique' or better 'management' that we want. A genuine environmental politics calls for a radical turn about in cultural attitude: we are part of nature. As Marcuse writes, our deformed and alienated civilisation has:

. . . cut down the life environment of man not only in an ecological but in a very existential sense. It blocks the erotic cathexis . . . it also prevents him from recognising nature as a Subject in its own right . . . (*Counter Revolution and Revolt*, Allen Lane, London, 1972, p. 60.)

There is no avoiding it, ecology is 'not just green', but it is not simply 'red' either. It is political in a way that pushes past present understandings of that word. Existing political alliances and ideologies are fast proving obsolete and irrelevant to this struggle, so that to be partisan is indeed to be self-defeating. An authentic environmental politics will need to be sensitive to the machinations of instrumental rationality in all its forms.

**Author's Note:** I give a more detailed treatment of these issues in two articles published in the *ANZ Journal of Sociology*: 'Of Portnoy's Complaint and feminist problematics' (Vol 17, 1981) and 'Nature in trouble' (Vol 18, 1982). See also 'Contribution to the critique of political epistemology', to be published in *Thesis II* later this year.

# Breast milk A SOURCE OF MORE THAN NUTRITION

An increasingly serious, but neglected, aspect of environmental pollution is the accumulation of toxic chemicals in mothers' milk and the consequent risks to breastfed infants. **Rosemary Nichols** looks at research in Australia and overseas.

The proportion of mothers in the USA who breastfed at the time of hospital discharge increased from 25% in 1974 to 53% in 1976. In Sweden in the mid-1970s the percentage was 70%; in Canada in 1978, 35%; in Australia in 1982 it was 80% with 50% still feeding at 3 months. The benefits of breastfeeding are becoming more widely appreciated. For the 'underdeveloped' and poorer nations it has always been important; in Indonesia, mothers' milk has been described as a major national resource. Campaigns have been waged against the inappropriate marketing of infant formulas.

Breast milk is the only food an infant needs in its first 4 to 6 months of life. Apart from considerations of cleanliness, convenience and cost, the benefits of breastfeeding include the nutritional, anti-infective and hypo-allergenic attributes of the mother's milk. Attempts to produce a complete synthetic product are unlikely to succeed. Known biochemical and physiological differences exist between breast milk and synthetic products - and probably many are yet to be discovered - which may have 'long-term, albeit subtle, consequences on infant development'. It has been said that the use of milk substitutes is one of the largest uncontrolled experiments performed on humanity.

We may be conducting a vastly more frightening experiment by exposing our bodies to synthetic organic compounds such as pesticides and many industrially-

*Rosemary Nichols trained as a nurse and is presently a member of the Toxic and Hazardous Chemicals Committee of the Total Environment Centre, Sydney. While living in Malaysia and Papua New Guinea, she was exposed to many pesticides and herbicides. She breastfed her daughter for three years.*

used chemicals, previously unknown to living things in the millions of years of evolution.

The thalidomide tragedy intensified concern for the possible effect on the developing foetus of the wrong substance at the wrong time. The increasing popularity of breastfeeding in the 'developed' nations at a time of widespread use of prescribed, over-the-counter and illicit drugs has focused attention on this route to ingestion by the still developing infant. By comparison the extent of exposure through human milk contamination by environmental pollutants is barely appreciated.

A great part of the problem lies in the nature of the original exposure of the mother. Milk contamination by drugs and social toxins such as alcohol and nicotine can be largely controlled by the individual. Environmental pollutants are in the air we breathe, the water we drink, the food we eat, and even the clothes we wear. Where such contamination becomes widespread and unavoidable, issuing from a multitude of sources, we are subject to ambient exposure. Under such conditions advising pregnant and lactating women to avoid contamination is ridiculous. This form of contamination, says A E Olszyna-Marzys of the Institute of Nutrition in Guatemala, can only be reduced by the concerted action of the entire society affected.

Guatemala has had cause for concern. The highest values for 1973 of breast milk contamination by DDT were recorded there. It was estimated that infants were fed, daily, between 6 and 270 times the maximum amount of DDT considered to be acceptable by the World Health Organisation (WHO).

The most regularly and extensively reported human milk contaminants belong to the chlorinated hydrocarbon group of chemicals. These include the organochlorine pesticides - DDT, dieldrin, heptachlor, lindane (BHC); the industrial polychlorinated biphenyls (PCBs); and the fungicide hexachlorobenzene (HCB). Others include the organo-mercury compounds such as methyl mercury; and cadmium and lead. The most toxic synthetic chemical, dioxin, the contaminant of 2,4,5-T in

'Agent Orange', is an organochlorine compound. It does not appear to have been tested as a breast milk contaminant.

The complete list of environmental agents detected in human milk is only a small proportion of the total number to which humans are exposed. Testing procedures have been a problem in the past, but the failure to relate sick breastfed infants to the mother's exposure to an environmental toxin has also been claimed as a factor.

DDT is perhaps the best known environmental contaminant. The controversy that followed its initial extensive use, as its hazardous properties were realised, served to make it the standard example in explaining environmental pollution. The phenomenon of global pollution was understood when DDT was detected in as isolated a place as the Antarctic, far from the sites of original application. Highly fat-soluble and poorly biodegradable, DDT and similar contaminants accumulate and remain in the food chain for a long time. Humans, at the end of the food chain, may be exposed to high levels of accumulation from diverse sources as well as from direct exposure. Infants at their mothers' breasts are at the extreme end of a food chain.

The nature of milk itself also plays a role in this contamination story. Because it is relatively high in fat and has an acidity higher than blood plasma, fat-soluble and alkaline compounds will concentrate in it. Breastfeeding can, in this way, provide an early and concentrated source of unwanted chemicals. The body burden of young infants may rapidly approach or exceed the body burden of their mothers. By way of illustration, Japanese studies have found that the blood level of PCBs in infants may, with the ingestion of contaminated milk, reach six times the blood level of the mother.

In fact, lactation has been found to be the only route by which appreciable amounts of some of these compounds are excreted. Mother's milk could become so foul as to be undrinkable. The proud proclamation, 'I WAS A BREAST-FED BABY', to be found on the T-shirt of many a contented con-



sumer, could come to have a different meaning altogether. At what stage toxic levels are reached, for both adult and infant, is highly unpredictable. The long-term and chronic effects of these compounds are poorly understood. The particular effect on the immature systems of young infants have simply not been investigated.

Organochlorine insecticide contamination of human milk reached unusually high levels in Japan and Central America in the early 1970s. In Central America much blame was placed on the 'massive, indiscriminate and ever-increasing spraying of cotton fields'. In Guatemala, DDT levels were 25 to 30 times the average levels found in the USA, England, Sweden, Norway and Portugal, and these countries still had levels of human milk contamination above the WHO maximum for cow's milk. High levels reported from West Germany have prompted a newspaper to comment 'If mother's milk were covered by the pure food laws it would be banned for human consumption.'

A survey of 45 samples, conducted in Sydney in 1972, found concentrations of DDT and other commonly known chlorinated pesticides 'within the ranges found overseas'. This statement is on a par with the question 'How long is a piece of string?' but it is not exactly reassuring in the light of the foregoing information. A 1973 Queensland survey found that extensive use of DDT in the tobacco-growing area of Mareeba had raised human milk contamination in the area to far higher levels than the already high contamination found in samples from urban Brisbane. Similarly high results were recorded for a rural area in Victoria, Shepparton in 1970. Although levels in other rural and urban areas in this Victorian survey remained, again, 'on a par with those detected overseas', this still meant that the mean levels of total DDT exceeded the WHO limit for cow's milk.

It would be hard to imagine that similar results would not have been detectable in human milk in rural areas of NSW. In 1972-1976, fish and wildlife in the cotton-growing Namoi district were reported to contain levels of DDT which were among the highest in the world.

DDT is the one pesticide in common use which Australian authorities have taken steps to control. This is a useless exercise while the use of other, perhaps more hazardous, compounds in the organochlorine group are still being used, possibly in increasing amounts. Banned or restricted in many other countries, many of these pesticides are freely available in Australia. Anybody can buy them for such diverse purposes as large-scale agricultural spraying on the one hand and killing cockroaches in the kitchen cupboard on the other.

Some organochlorines are known to cause cancer and birth defects, and



ELIZABETH HONEY

to affect reproduction in test animals. Of particular concern is the spread of dieldrin in the environment, to the extent that in many regions of the world dieldrin can be detected in all breast milk, as is the case with DDT. In the USA, where dieldrin in human milk has been described as 'ubiquitous', continued sampling has not shown a decline in residue levels, despite an Environmental Protection Agency (EPA) restriction on dieldrin in 1974. Dieldrin is now banned in the USA.

The Queensland study also reported abnormally high dieldrin concentration in human milk. With dieldrin, however, no significant differences were found between levels in rural and urban samples. From this finding can only be drawn the alarming conclusion that exposure in both areas resulted from dietary intake and domestic use, as the authors of the report claim. Extensive agricultural spraying occurs in neither area.

The dramatic effects of large quantities of acute poisoning of infants through breast milk is well illustrated by an incident that occurred in eastern

Turkey in 1965. A shipment of wheat for sowing, treated with the fungicide HCB, was delayed past planting time. 'Unintentionally' diverted to replace stores of edible wheat, it poisoned more than 4000 people. The milk of mothers who were nursing infants became sufficiently contaminated to cause skin disorders (*pembe yara* - pink sore) and deaths among the children.

HCB, a fungicide not used in food production, should not be in the food chain at all. Yet all 67 samples of two surveys in Victoria in 1970 contained HCB. The conclusion was that improper channelling of HCB-treated seed into the local poultry and stock food industries occurred following 'a series of severe reductions in wheat acreage during the worldwide wheat over-production in the past decade'. Do you wonder what is happening with the present wheat shortage? HCB was also found in all samples in the Queensland, Sydney and Perth studies of the early 1970s.

The only published survey in Australia that appears to have tested for PCBs was the one conducted in Sydney in 1972.

The researchers found no contamination in 45 samples of milk and suggested that the food chain was not contaminated. It is hard to imagine we are so pure. PCBs have been detected in fish in Sydney's Botany Bay. Although it is hoped that the Clean Waters Act might control the situation, this cannot be assumed.

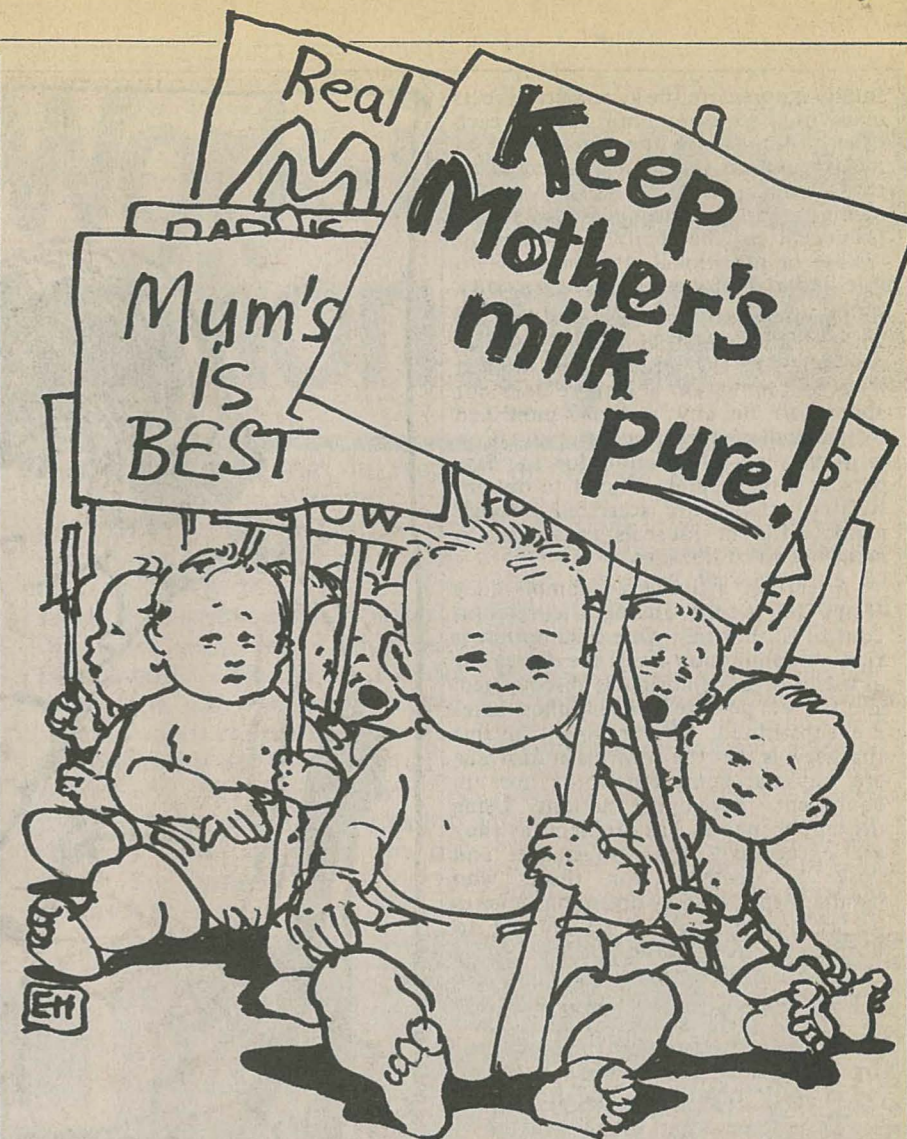
PCBs are used in a wide variety of industrial processes, and studies of human milk and adipose tissue have shown human exposure to be widespread in the USA. This is regarded as the result of uncontrolled disposal and leakage of industrial fluids into rivers and coastal waters. The dumping of industrial fluids into land-fills has also been implicated. In Sweden, the effects of organochlorine pesticide controls were called into question by elevated PCB levels, in 1974, in human milk. The contamination came from consumption of fish from the Baltic Sea where industrial waste had been discarded. Considering the dismal history of industrial waste disposal in Australia, 45 PCB-free milk samples do not provide much comfort.

Do we have to wait for the extreme situation before action is taken? We should learn from the experience in the USA state of Michigan, where half of mothers have PCB milk levels nearly equal to, or above, the Food and Drug Administration (FDA) tolerance for cow's milk. Their babies reach high body burdens of 1-2 parts per million after nine months of nursing. Although doctors in Michigan can find no clear indication that these levels pose significant health hazards to the infant, they are concerned because of the known toxicity of the compound.

Women have already had to bear the brunt of the 'solution'. Duties of the pregnant or lactating mother now include reducing or eliminating their consumption of fish from PCB-contaminated waters and avoiding 'excessive' weight reduction, as this might mobilise chemicals stored in fat tissues.

Telling mothers not to breastfeed their babies is still regarded by Michigan Public Health authorities as a rather harsh measure. What appears to them to be a more acceptable 'solution' is a reduction in the duration of breastfeeding for those mothers with the nastiest milk. If you appear to be in this high risk category, you wait from 2 to 6 weeks for your milk to be tested. If the tests reveal an elevated PCB level in milk fat, or if the milk contains a lower milk fat PCB level but a very high fat content, then you will be given advice on how to poison your baby less.

The hazard from these breast milk contaminants is more than rising levels of acutely toxic substances. A baby may even be poisoned while the mother remains apparently healthy. An example was a case of obstructive jaundice in a very young baby whose mother's milk



ELIZABETH HONEY

was found to be contaminated with the dry-cleaning solvent tetrachloroethylene.

The toxicity of a substance depends on many factors. Route of exposure is one. Dieldrin is five times more toxic than DDT if swallowed. It can also be absorbed through the skin and is then forty times more toxic. Under normal circumstances it appears that acute toxicity could not be provided through breast milk contamination as at a certain level the body is able to excrete dieldrin to maintain a level of dynamic equilibrium. The long-term effects of such exposure are another question.

The National Health and Medical Research Council (NHMRC) have established recommended tolerances for pesticide residues in or on a food. These tolerances do not represent toxicological levels but take into consideration the average level of exposure that might be expected during a lifetime. They do not take into consideration unusual levels of exposure such as might result from deliberate use of a compound on a farm. Another route of extraordinary exposure is through breast milk. A breastfed baby may

receive a daily intake not only in excess of recommended levels but higher than its mother's daily intake. This occurs not only through the mechanism of concentration in fat but also through the different excretory controls to which the different and combined contaminants are subject. For example, not only is DDT excreted at higher levels through human milk than through cow's milk, it is also excreted at a rate higher than the daily intake of the mother.

The calculated average daily intake of total DDT, dieldrin and HCB residues by breastfed babies in the 1973 Queensland survey was found to exceed both NHMRC tolerances for cow's milk and the relevant acceptable daily intakes recommended by WHO. This situation requires careful monitoring.

Recommended daily intakes can't really take the long-term effects on adults or neonates into account because the effect on the former is little understood and on the latter not at all. Almost no research and only a few epidemiological studies have been done in this area. Other factors almost



totally ignored are the synergistic effects many of these compounds have on each other, for instance the metabolism of dieldrin within the body is affected by the presence of DDT. Similarly many common drugs and possibly toxins produced in the body at times of disease or nutritional stress may play a role in metabolising these contaminants.

There appears to be little interest within the medical profession in Australia in the problem of human milk contamination and there does not appear to be any material published by Australian doctors on the situation in Australia. Information for the layperson is sparse and difficult to obtain. Related articles are scattered through many different journals in almost as many specialist libraries.

A certain attitude of complacency seems to prevail among the relevant control authorities. One assumption is that contamination levels are decreasing as use of organochlorines is 'discouraged' and the less persistent organophosphates are substituted. The argument against that view is that the controls in Australia are abysmal compared with those in equivalent 'developed' nations. Using organophosphates has problems as they are exceedingly toxic substances and pose a dilemma for those who handle them. Nor may organophosphates be as non-residual as we are led to believe. Although the authors of a report from Western Australia had the grace to admit that a larger sample was in order, their statement that their survey tended to 'support the thesis that organochlorine residue levels are decreasing in Western Australia and other parts of the world' is irresponsible. With restrictions on these compounds so recent, long-term studies had not been done.

Overseas evidence shows that although environmental substrate levels may be decreasing in some regions this does not hold true for human body burdens or breast milk excretion. Independent surveys of human milk must be carried out to obtain a true picture. Human blood and adipose tissue levels will not suffice except for the odd compound such as dieldrin. When reviewing the pesticide situation in Australia authorities must consider the exposure of the breastfed baby as their base line for initiating controls. The average daily intake of an adult male as assessed from market basket surveys is not acceptable.

The only other direction to take would be to discourage or limit breastfeeding. That is an imposition women must fight. Our health authorities will not do it for us. Apparently they see the situation as 'a difficult problem for those who are responsible for advising mothers on the feeding of their newborn babies'. Others, such as A.I. Dugdale from the Department of Child Health in Queensland, express their



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ELIZABETH HONEY

attitudes towards breastfeeding as follows:

breastfeeding and breast milk developed as a compromise which... promoted maximal survival of mother and infant under... prehistoric conditions. Today, however, we place emphasis on growth and development of the brain as being crucial in social survival and well-being in our competitive society.

This comment was published as correspondence in the *Medical Journal of Australia*. Apparently this learned gentleman is not convinced that breast milk provides proper nutrition.

Of immediate concern is that many infants are being subjected to unknown risks from chemical contamination of breast milk. It may be that certain groups, such as rural mothers, are more exposed to environmental pollution than others. The certain conclusion is that we are all overexposed, and

especially the next generation.

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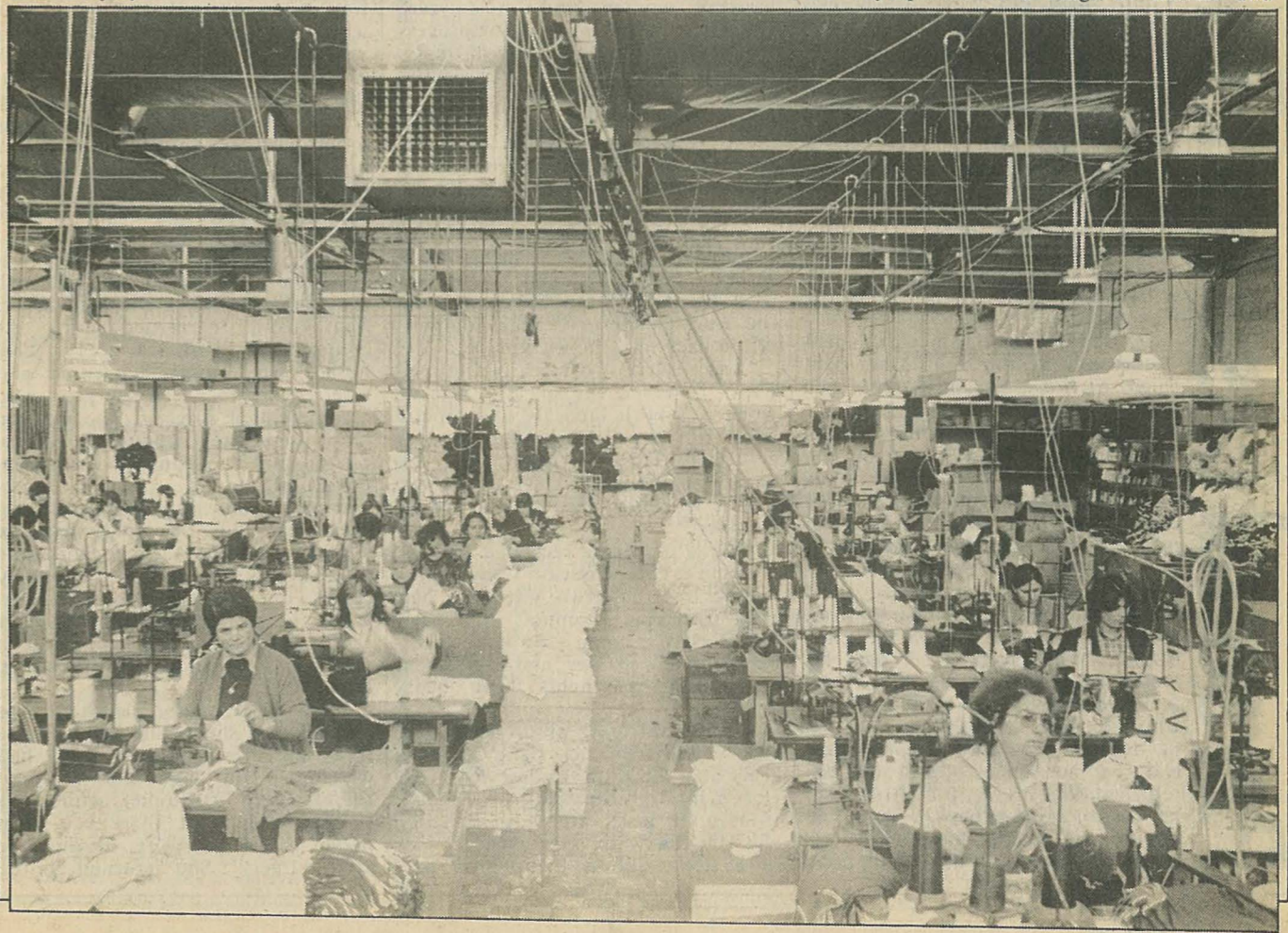
# Work-induced repetition injuries

Repetition Injury has in recent years reached alarming proportions in some sections of the workforce, particularly among process and clerical workers. Thousands of Australians have been put off work and many have been permanently crippled by the disorder, the vast majority of them women and migrants. Yet repetition injury has been ignored or denied by management and by much of the medical profession. Workers have been left to discover the hazards of work for themselves - as a result of injury.

What then is repetition injury? And how can it be prevented? This report was compiled by Sharon Callahan, with assistance from Lorraine Powell and Anne King, both of whom suffer from repetition injuries.

Many workers are employed to perform monotonous, repetitive tasks which at first appear quite unlikely to produce strain and injury. It is only over a period of time that workers become aware of aches and pains - usually in the fingers, hands and arms - which may progressively worsen, and ultimately make it impossible for the sufferer to continue working. These aches and pains are the symptoms of a range of muscle and

Women workers in a Holeproof factory in Melbourne. Payment of clothing industry workers by piece rates is just one factor that ensures constant pressure to work faster and further increase the risk of injury.



ACTU WORKING WOMEN'S CENTRE/VIVIENNE MEHES



tendon injuries termed Repetition Injury (RI), the best known of which is tenosynovitis.

RI is caused by continuous hand and body movements which require either sustained pressure or rapidly repeated pressure movements, for example, gripping a pair of pliers many hundreds of times in one day. It must be emphasised that RI is caused by the repetitive nature of the movements required by the work process. It is aggravated by a number of related factors such as inappropriate placement of work in relation to the worker, inappropriate tools and seating, the speed of the production line (which is often increased further under the lure of incentive and bonus systems), lack of job rotation, and inadequate rest breaks.

All people doing repetitive work, for instance process workers, typists, and machine operators of all sorts, are at risk of contracting RI. By far the greatest number of injuries occurs among process workers, especially in the electronics, electrical goods and food processing industries. Other workers such as cleaners, particularly those using poorly designed equipment, are also at risk. Because the types of work likely to

produce RI are usually done by women, it is almost exclusively a woman's complaint. One-third of new compensation cases amongst women are for RI. Amongst men the figure is one-thirtieth. Exactly how many workers suffer from RI is still unknown. It is impossible to obtain statistics on the number of industrial injuries occurring in Australia because official records are kept only of those for which compensation is paid.

Management and many medical practitioners regard RI with great suspicion. Despite its frequency RI is still regarded by many as a 'fashionable' disease which has only come into prominence through recent publicity given to it by the media and unions. However, the problem is not new, it has been known to occur for a very long while. It has only recently become an issue because in the past management has either ignored or denied the problem, and sufferers have been relatively powerless to take action. Moreover it is only recently that RI has reached epidemic proportions. The main reason for this is the increasing specialisation of tasks and the introduction of new technology which has encouraged

that trend. Also the current high unemployment means that workers who notice the symptoms developing are less likely to find other jobs.

When symptoms do first appear many remain silent either because they doubt they would be believed - workers and particularly migrants and women have little credibility with management - or because they fear losing their job if they go off sick. However, as long as the sufferer remains at work, the symptoms will worsen. In many instances the condition deteriorates until pain and swelling are so extreme that the sufferer is unable to continue work. Many workers leave the workforce at this point. Others take sick leave, or even their holidays, because they do not know about workers' compensation or because they are not able to find a doctor who recognises the problem as work-induced.

It is usually management policy to deny all responsibility for the injury. Workers are told that they are suffering from arthritis, that they are inherently unsuited to the type of work, or simply that they are too old!

By this stage the sufferer is probably

which put a considerable strain on her arms. She was able to stay at work for two days only.

Most of Ana's workmates were migrant women and most were operating machinery or doing process work which put them at risk of RI. The situation was aggravated by the shoddy tools and materials with which they had to work. Management repeatedly rejected workers' requests that equipment be upgraded or that workplace design be altered. Consequently the RI cases from this particular factory numbered in the hundreds. Finally management agreed to set up a special process line with lighter tasks to bring many of the workers then receiving compensation back into the workplace.

Ana returned to work in October 1981; however, the so-called lighter work was both intricate and repetitive, and unrealistic production targets were set. Ana again went off work in January 1982 and was unable to return. She was sacked in October.

She is currently receiving weekly workers' compensation payments. In the less than two years she has been receiving 'compo', the payments have come through three insurance companies, and with each change the payments have been delayed.

Ana is suffering at present from tenosynovitis in her right leg and arm, and ganglion in her left leg. Her symptoms are not improving. Household tasks are very difficult and she can walk only with the aid of a stick. She is living in a flat

three flights up and is often unable to go out.

kay

Kay is a young Australian woman who began working in the banking industry in 1975. In March 1979 she started work as a machinist but the machining work was not continual as she was also supervising other workers. In September 1979 her workplace was reorganised and her machining work increased. By June 1980 Kay had begun to have pain and cramps in her hands.

In September 1980 she was switched to a clerical job, but with the change of work the pain in her right hand intensified until she could barely write. A doctor diagnosed carpal tunnel syndrome, and referred her to a neurosurgeon who recommended surgery. The surgeon recognised the condition as job-related and the bank granted compensation.

Kay continued working until the operation. She was told that she would be off work for a short time after surgery but would be completely cured. Immediately after the operation the pain all through her right arm was intense. The neurosurgeon was sceptical; her GP gave her pain killers.

Five weeks later her hand was twisted and she could barely move it or her arm, and scar tissue had developed on her hand. Physiotherapy gave little relief, while tests showed only that there had been nerve damage 'before, during, or after surgery'. She returned to the

well and truly caught up in a 'medical merry-go-round'. Doctors generally have very little training in, or knowledge of, occupational health. Tenosynovitis, for example, rates one mention in medical-school texts - a passing reference to De Quervain's tenosynovitis which is not the tenosynovitis rife in industry. Medical practitioners usually come from a class background very different to that of most workers. Not only are they unprepared to diagnose and treat the complaint, they are often unsympathetic to the problems of workers and totally ignorant of the physical realities of the workplace. Nor does the credibility of working women and migrants rate very highly with male professionals. This problem is compounded by the fact that there are often no visible symptoms for RI. Many women have heard their complaints dismissed as female 'neurosis' or 'hysteria'. It has even been argued that RI is no more than an emotional problem of women. The belief that it is 'all in the mind' is so entrenched that insurance company doctors have referred women making compensation claims to psychiatrists! Even if a GP does recognise there is something physically wrong,

there is still a good chance that the condition will be misdiagnosed. It is not uncommon for sufferers to be told that their problem is arthritis, neuralgia, or fracture of ganglion.

The first treatment given to the majority of patients, even before rest, is tablets, and many workers attempt to continue working using painkillers. The result of this is a major secondary problem of workers falling into a pattern of daily use of drugs, especially analgesics. Workers report management encouraging drugs as a 'cure' for com-

It is easy for doctors to differentiate between these two conditions if a proper history is taken and if the doctor is aware of the obvious signs which accompany tenosynovitis and muscle strain. A simple nerve conduction test can sometimes be used to indicate whether surgery should be carried out. Lidcombe Workers' Health Centre found that only nine out of nineteen patients who had undergone surgery had had the test. Only one of the nineteen had been cured. This was the only patient with simple carpal tunnel syndrome. Thirteen

neurosurgeon who was uninterested and implied that her condition was psychological.

After several months' rest Kay was told that she could return to work though she could expect some pain because she had not worked for so long. She did return and persevered for two weeks before pain forced her to leave.

At this point Kay finally saw a doctor who diagnosed tenosynovitis. She began attending a pain management clinic, and was given anti-inflammatory and pain relief drugs as well as instruction in meditation and relaxation techniques. Pain persisted and in February 1982 she was given acupuncture for several weeks though this seemed only to aggravate the condition. Kay next saw an insurance company doctor who found tenosynovitis, muscle strain, tennis elbow and tendonitis in both her arms. This doctor advised her that she would be unable to return to work in the bank and was unlikely to work again.

Kay had been receiving workers' compensation throughout this period and she now went to court hoping to be awarded regular payments for as long as she was out of work. Once in court however her barrister opted for a settlement against his client's will. Nevertheless Kay accepted the settlement after her barrister told her that she could pursue her claim through common law. This has proved false and Kay has been left with a settlement of \$12 500 only. Her symptoms persist and her injury gives her almost no chance of gaining employment.



Process line work can mean thousands of repetitive movements in a day. When the painful symptoms of repetitive injury appear many sufferers remain silent in fear of losing their jobs if they complain.

plaints; some factories have an aspirin or analgesic dispenser on the factory floor. Often subsequent chronic pain, disturbed sleep, and loss of hand or arm use is compounded by depression and family and marital strains, which in turn lead to anti-depressants, sedatives and tranquillisers.

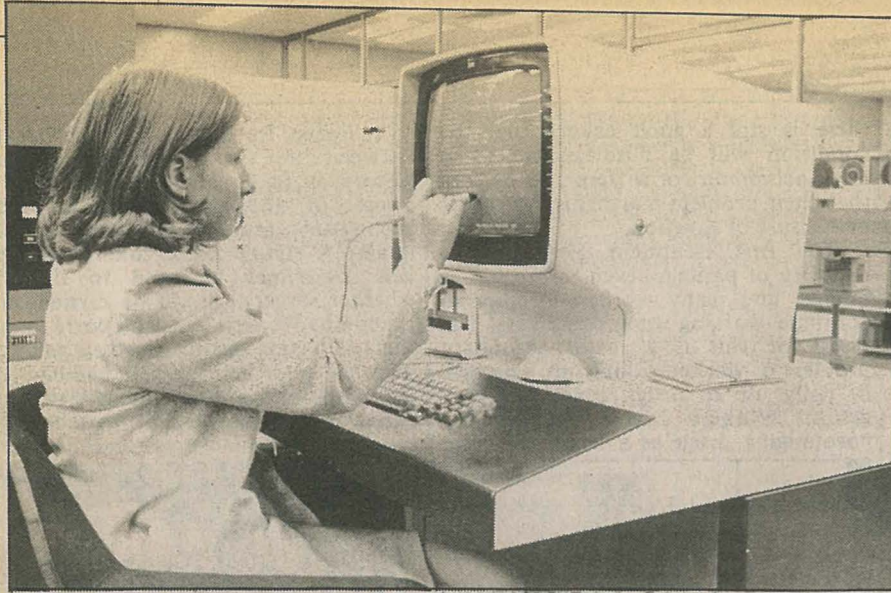
Treatments given for RI apart from medication include rest, support (sling), plaster, ultrasound, acupuncture, cortisone injections, other physiotherapy, and surgery. The effectiveness of these treatments in relieving pain varies from individual to individual and there is no certain cure. Some treatments, particularly ultrasound and physiotherapy, are painful in themselves. Cortisone can cause pain and swelling and has side-effects which are not yet fully understood.

Many specialists are quick to encourage surgery as 'instant relief'. Surgery is in fact an appropriate treatment for only one condition, simple carpal tunnel syndrome. However, where carpal tunnel syndrome is secondary to tenosynovitis, surgery is at best useless and at worst disastrous.

patients believed themselves worse off after the operation and eleven thought themselves permanently crippled. Furthermore it seems that a number of patients had gone through with the operation because they feared that the insurance company would claim that they were malingerers and discontinue workers' compensation payments.

But it is not only doctors who do not understand RI. Health workers in general have failed to come to terms with the problem. In one case a physiotherapist suggested to a woman with tenosynovitis contracted through her work as a typist that typing with a manual typewriter would be therapeutic. Another woman visited a clinic and was asked to circle true or false to 566 questions when she was unable to write without pain. Patients complain that little attempt is made to explain their condition or treatments to them. Nor do their experiences or opinions seem to count. It is interesting to note that, despite the many treatments prescribed, patients at Lidcombe rated the two most beneficial treatments as 'rest' and 'none at all'.





The new technology has its dangers. Among them repetitive strain injury.

Yet even medical recognition that one is suffering from RI can mean a great deal. At the least it means being able to produce a medical certificate to prevent an immediate sacking, and the chance to claim for workers' compensation. Theoretically any worker injured at work is automatically entitled to compensation. In practice this is not true. Individual workers find themselves at odds with hostile companies conniving with powerful insurance companies both determined to deny liability.

Companies have used private investigators to follow, photograph and visit workers in their homes to gather evidence or simply to intimidate. In court some workers may ruin their case by statements such as 'I can't do anything at all' only to have insurance company lawyers produce photographs to prove the contrary simply because some people, especially women with families, will try to do as much as possible despite the pain. Yet such evidence cannot prove that these tasks do not cause pain or that the sufferer is able to return to earning. Barristers have also raised the sexual or psychiatric history of workers in order to have the complaint dismissed as 'emotional'. Injured workers are often under such stress that they can be persuaded to accept settlements well below what is possible.

RI means not only pain and loss of job but also the impossibility of returning to the only work at which the sufferer is experienced. For many it also means almost total disruption to daily life. It means that simple tasks such as cooking, shopping, gardening, dressing and cleaning teeth cause great pain. Most hobbies and sports must be abandoned. Even social life becomes difficult; eating out, dancing or even mingling in a crowd can be ordeals. Being unable to perform simple everyday tasks can eventually result in mental stress and depression.

In the case of married women the

injury means that husband and children must take over household duties, but when this goes on for months or years strains in the family relationships may appear. There may be pressure from husbands and children to continue with household duties. Marital problems and marriage breakdowns do occur and there can also be tensions with friends.

There are also the economic burdens. People doing unskilled jobs are usually working as an economic imperative. The loss of this income is a serious blow to families as well as to individuals. People whose spouses work cannot receive sickness benefits.

Despite the rising number of compensation cases nothing is being done to stop this production of invalids. Governments have made no specific legislation to cover RI, and government factory inspectors are typically male and have social and economic interests far closer to management than to working women. Management is usually given advance notification of inspection and workers report 'clean ups' in preparation, for example, slowing down the process line. If there were laws to prevent employers setting up the work processes which induce RI, and if inspectors were sympathetic and adequately trained, the cause of much suffering could be eliminated.

Work-induced RI is completely preventable through sound work practices including job rotation, slowed process lines, properly designed tools and seating, the removal of the bonus system, and adequate rest breaks. However the attitude of management, courts and governments has tended to be 'blame the victim'. As with other occupational injuries, worker apathy and carelessness are regarded as the causes. Thus it is left to employers to voluntarily regulate and eliminate hazards from their workplaces. There are no legal obligations to do so nor penalties for not doing so. This approach is remarkable for its naivety. It is

generally not in the financial interests of employers to provide healthy and safe workplaces or to maintain well-informed and well-trained workforces. Specialisation of the work process enhances efficiency, at least as far as company profit is concerned, and in times of high unemployment it is easy for employers to replace injured workers, especially in jobs where little or no training is required.

Employers have in many cases invested millions of dollars in setting up a system which is most profit-efficient. In some areas — for example data processing — the system is part of a national or even a global network. In such industries employers are scarcely keen to reorganise work processes for the sake of the health of a few hundred workers.

Workers with RI face years of pain and financial loss, and some sustain permanent damage. It is certainly permanent in the sense that they can never return to similar work and no employer would knowingly employ them anyway. Occupational health and safety arrangements are hopelessly inadequate to deal with the problem. Immediate measures for combating RI include:

- making RI a notifiable disease so that action may be taken against processes which induce RI;
- training inspectors to recognise dangerous work conditions and giving them power to enforce preventative measures;
- making information on hazards and workers' compensation available to all workers;
- taking criminal action against employers responsible for RI-inducing practices, or for sacking workers on compensation; and
- establishing a fair workers' compensation system under which workers are compensated automatically and for as long as necessary.

In Sweden workers are obliged by legislation to form health and safety committees. These committees have powers of inspection, access to information, the right to stop unsafe and unhealthy work processes and to be involved in job planning and workplace design. There is also government research into hazards funded by a levy on employers. Similar legislative arrangements are supported by the ACTU policy on occupational health and safety.

Behind any such policy and legislative changes lies the one essential recognition: that worker health and safety must come before profits and production, and in the case of RI in particular, that injuries to women workers merit attention no matter how invisible the complaint. As one woman put it, 'The issue is firstly that we are women and secondly that we are women with tenosynovitis'.

# Martial power

By Wistula Zelen

Martial law was declared in Poland in December 1981. Thousands of activists and workers were rounded up and imprisoned in concentration camps across the country. Only one month later, in January 1982, the martial law regime decided to commence a nuclear power program with a target of 25 000 megawatts (MW) generating capacity by the year 2000. Although the announcement of the program may have been coincidental with the declaration of martial law, people in Poland would have been expected to strongly oppose the implementation of such an ambitious nuclear program, leading to further public protests which the Polish authorities could not countenance.

The Polish people would question the need for nuclear power. Poland is well endowed with anthracite, brown coal, peat and oil, and some of these energy resources are regularly exported to Russia. Before the imposition of martial law, there was an incredibly strong peace and anti-bomb movement in Poland which would have seen nuclear reactors as key targets in a nuclear war. Since the end of World War II, Polish streets have been adorned with peace slogans, some of them official Party propaganda formulated from popular demands, others posted by workers in the community. People in Poland develop an understanding of the effects of radiation at a very early age from their civil defence training in pre-school and from their later schooling. Children know that the biological effects are impossible to escape.

Poland has similar coal resources to New South Wales, and would be crazy to embark on a high capital cost adventure into nuclear power. It would add to the country's huge billion dollar loan repayments and do little to address the problem of drastic food shortages within Poland. The Polish authorities, preoccupied with the need to pay interest on massive international loans, are desperately trying to get the nation back to the workplace to produce goods for export. Farm produce and manufactured goods are exported directly to the West and to the USSR for re-export. Large installations such as electricity

Worker at Ewa nuclear research reactor in Poland.

generation plants are usually constructed with labour imported from Japan, Britain and the USA, which further adds to the country's debt.

Poland's previous nuclear experience has been limited. Ewa, a small research reactor installed 25 years ago for Soviet and Polish nuclear science research at the Nuclear Research Institute at Swierk, has been used for experimentation and for the production of radioactive isotopes for industry and medicine. The Ewa reactor suffered ageing problems similar to those of the Hifar reactor at Lucas Heights near Sydney, and had to be modernised to try to deal with increasing dangers. The experience gained during Ewa's construction and upgrading was used in the construction of a second and more powerful reactor, Maria, and in modernisation of similar reactors in East Germany and Hungary. The Australian Atomic Energy Commission's 1981 annual report indicates that Poland had only one nuclear power plant under construction in 1980-81, of capacity 410 MW. This is probably a reference to Maria.

The 25 000 MW installed capacity by the year 2000 has been qualified by 'specialists':

... the present economic crisis should not deter us [Poland] from installing at least 15 000 megawatts in nuclear power plants. The social effort in this respect, spread over the next 18 years, seems to be a must. (*Panorama Poland*, September 1982)

This lower estimate of installed capacity, if realised, would still be more than those of the present atomic energy programs of Spain and the United Kingdom, and slightly less than Canada's. Poland's neighbour, East Germany, has five operational reactors with 1715 MW total installed capacity and another eight under construction with a planned combined capacity of 3280 MW.

The first of the proposed nuclear power plants is to be constructed

beside Lake Zarnowiec, a small glacial lake 5 km from the northernmost tip of Poland, and linked to the already polluted Baltic Sea by a river channel. The area is low-lying marsh and peatland surrounded by extensive agricultural land which could be affected by planned and accidental discharges of radioactive wastes from the reactor. And Lake Zarnowiec is only 60 km north-west of the Gdansk dockyards. These dockyards have been, and continue to be, the scene of numerous workers' revolts, marches and political gatherings. The docks will receive shipments of reactor parts over the next decade. However, on 14 October 1982 the Gdansk dockyards were declared a 'military establishment'. Workers who go on strike or do not turn up for work face severe penalties, from long jail sentences for 'insubordination', to death for 'desertion'.

Poland's experience and that of other countries with already established nuclear programs, should warn the worldwide anti-nuclear movement to prepare for further legal restrictions intended to silence their opposition. The multinational nuclear industry still has a lot of hardware to clear out of its warehouses before it goes to ground. We need to be forever vigilant.



As *Chain Reaction* goes to press, conservationists are waiting for the gazettal by the NSW parliament of the NSW government's October 1982 decision to proclaim 90 000 hectares of rainforest as national park. Jenny Quealy reports on the employment implications of this decision and dispels the timber industry's claim that jobs will be lost.

On Tuesday 26 October 1982 the NSW Rainforest Cabinet Committee came to a decision about the fate of the state's remaining rainforests. This decision entailed dedicating 90 000 hectares of forest as national parks, with the National Parks and Wildlife Service of NSW to undertake caretaker responsibilities. The state government also allocated an initial \$1 million subsidy to the timber industry to promote development of technology for handling alternative timbers and to assist affected companies during the transition period. This will ensure that no jobs are lost as a result of the establishment of the parks.

The NSW government must be congratulated for encouraging environmentally sound employment at a time when there is enormous pressure from the timber industry and the NSW Labour Council with their 'jobs before trendy issues' stand. The timber industry and the Forestry Commission say their position is 'unsure' and 'up in the air' as a result of the decision. Despite assurances from cabinet that alternative supplies of timber are available for the established mills (see table 1), the industry is still claiming that jobs will be lost. A Labour Council spokesperson, Peter Spann, told *Chain Reaction* that after June 1983, when quotas are to be reassessed, employment in the industry will be 'shot to pieces'. This is false and misleading in the extreme. As the National Parks and Wildlife Service (NPWS) newsletter has stated, there are enough rainforest timber quotas from the areas to be declared national park, with timber supplies from other areas, to keep the industry in full operation while mills are converted to take the alternative hardwood timbers. This will keep the industry buoyant and jobs intact.

The rainforest policy has averted the collapse of that section of the timber industry which relies on rainforest timbers, and is a positive step in the current situation of high unemployment. If the Forestry Commission's proposed quotas had continued under the Indigenous Forest Policy (1976) of phasing out rainforest logging, the

Jenny Quealy is a member of the Chain Reaction collective in Sydney and has worked on forestry issues with the Total Environment Centre and Friends of the Earth for several years.

# NSW Rainforest Saved

situation for workers would have been grim indeed. As table 2 shows, quotas would eventually 'run out' creating a situation where the mills either closed and jobs were lost, or would need to be converted to take alternative timber supplies.

Contrary to the timber industry's opinion that conservationists were out to close mills and cut employment, conservationists recognised that the industry needed to have a serious look at what would happen when quotas were filled and timber was no longer available. A pamphlet prepared by the Total Environment Centre highlights the concern for the jobs issue:

Employment in the timber industry on the North Coast is declining yearly due to rationalisation encouraged by the Commission and the declining resource. If no action is taken then by 1986 almost 300 out of the 487 jobs in the logging and processing of rainforest timbers will be lost. Adoption of the proposals would enable the Government to secure these jobs on a long-term basis.

Conservationists have been consistently concerned about the employment situation and the alternatives proposed have largely been taken up by Wran's policy. This demonstrates that, as Milo Dunphy, director of the Total Environment Centre, stated, 'Conservationists

see consideration of employment as a key factor in sound environmental planning and believe the provision of employment is compatible with the preservation of the environment.'

There are six major rainforest areas identified by the cabinet committee. Table 1 lists each region and the area proposed for protection as national park.

The cabinet committee based their findings for Washpool and Hastings on a report by Forest Technical Services Pty Ltd (FORTECH), a Canberra-based company of forestry consultants who have worked on projects for the World Bank, the United Nations, and twelve overseas countries. This group's work is obviously respected and their standing high, despite attempts by the forestry industry to damn them. In a press statement from the Forest Products Associations (FPA) on 28 October 1982, executive director, Keith Jordan, said, 'the Department of Environment and Planning appears to have placed complete reliance on the FORTECH report, a document the industry considers to have been based on incorrect assumptions.' It was an obvious blow for the Forestry Commission that the



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Table 1

AREAS TO BE PROCLAIMED NATIONAL PARK, SHOWING MILLS AFFECTED, QUOTAS, AND ALTERNATIVE TIMBER SUPPLIES

Rainforest area	Proposed gazettal	Mill involved	Quotas and sources of future timber supplies
Border Ranges	30 000 ha extension to present Border Ranges National Park	Munro and Lever's plywood mill at Grevillia near Kyogle	Sufficient rainforest timber to supply quota till late 1980s. Thereafter plantation hoop and bunya pine will provide continuing supplies.
Nightcap	Goonimbar State Forest (3197 ha) and part of Whian Whian State Forest (975 ha) plus three adjoining plots of Crown Land will be reserved as Nightcap National Park	Standard Sawmilling Co at Murwillumbah	Logging within the proposed park will not recommence. Alternative timber supplies from outside the park will be available until early 1984.
Washpool	35 000 ha will be reserved as Washpool National Park, and additions will be made to the Dorrigo National Park	Big River Timbers Pty Ltd veneer mill at Grafton	Quota for Big River Timber will be halved to 25 300 cubic metres. An eight-year transition period has been suggested to change the mill to take a non-rainforest resource base.
Black Scrub	6000 ha in the western section of the Bellinger River State Forest will be included in the New England National Park	The Forestry Commission has withdrawn its proposal to log the Black Scrub area due to economic and environmental problems; no local mills will be affected as none rely on timber resources from this area	
Hastings	15 000 ha of the Mount Boss, Mount Seaview and Doyles River State Forests will be added to the Werrikimbe National Park and Mount Seaview Nature Reserve	Hancock Bros and Veneer Timber Products	Mills to be supplied limited rainforest resources equivalent to present rate of cut till mid-1984 from alternative areas as identified by FORTECH. The Forestry Commission will then arrange for these mills to adjust to non-rainforest timbers.
Barrington Tops	No decision finalised. There are presently no general-purpose rainforest logging operations allowed. Relevant government departments to report on additions and boundaries.		

Source: Peter Prineas, 'The Rainforest Decision - A question of finding the logs', *National Parks Journal*, Vol 26 No 6, Dec/Jan 1982/3, p 8. 'Rainforests - A momentous decision', *Parks & Wildlife News*, Vol 1 No 1, Summer 1983, p 1.



Logging in the Hastings area, mid North Coast, NSW.

Table 2

EMPLOYMENT IN RAINFOREST LOGGING AND MILLING IN NSW

Mill	Number employed	Expected date of exhaustion of millable trees
Munro and Lever (Kyogle)	95	1996
Standard Sawmilling (Murwillumbah)	47	1986
Robb and Brown (Urbenville)	11	1993
Bruce Roper (Armidale)	30	1982
Big River Timbers (Grafton)	90	1992
Cemac Oxley (Wauchope)	151	1986
Hancock Bros (Wauchope)	31	1986
Veneer and Timber Products (Wauchope)	32	1986

Source: *Jobs and Rainforest*, pamphlet published by the Total Environment Centre.



# NSW Rainforest Saved



30 ► committee relied on FORTECH's report rather than on Commission reports which have tended to be more favourable to the timber industry's views.

One area under heavy dispute, Washpool, was not given total national park status. The area is in Don Day's electorate of Clarence. Day was a member of the committee. The original quota available to the logging industry was 52 000 cubic metres; this was reduced to 25 300 cubic metres, to be logged by Big River Timbers Pty Ltd. This compromise appears to have been a political concession to Day, keeping his seat relatively safe.

There is also some dispute over the Hastings and Barrington Tops areas, with the timber industry pressing for a change of boundaries in the former region. Boundary changes would, however, upset the ecological value of having a total catchment preserved and would be detrimental to the idea and practice of rainforest conservation as identified by the committee. The Barrington Tops area still has to be discussed in cabinet

before any decisions are made on its fate. Mr Falconer from the Forestry Commission told *Chain Reaction* that there will be a two-to-three-month period to thrash out these details.

The fight for rainforest conservation in NSW has been long and bitter. Much mud has been slung, especially since the decision was announced. The timber industry has branded conservationists and concerned individuals with many unwarranted names and attributes. For example, Mr MacGregor-Skinner of Standard Sawmills, in a press release dated 27 October 1982, said: 'the Government should have made a decision which supports the timber industry . . . instead of locking up the forests at the whim of a small violent non-contributing uninformed minority.'

Barrie Unsworth of the NSW Labour Council contributed to this side of the struggle with a somewhat amusing relay of stories in the *Sydney Morning Herald* on the type of cars owned by conservationists, and with his statements to Wran before the decision was formulated classifying conservationists as the

'new, middle, Volvo class'. The search was on for a conservationist with a Volvo — none was found. (Interestingly Unsworth drives a large Ford limousine, and lives at Turramurra.)

Besides the mudslinging, the industry has been using misleading terms to describe the changeover of rainforest areas to national park status. The use of terms in press releases such as 'locked up', implying that these areas will be under lock and key and therefore inaccessible to the public, is an example.

Other press statements indicate that the industry is trying its hardest to confuse the public and exert pressure on the government for changes to the policy. In one statement dated 27 October 1982 Jordan (FPA) states: 'it is now even more obvious that Mr Wran has fallen for the propaganda put out by the preservationist movement', and goes on to dispute the government's assurances of alternative timbers, calling them 'mythical'. Jordan continues, very provocatively, 'nor is it necessarily the final Cabinet decision [as] industry experience with the Border Ranges shows that Cabinet decisions can be overturned . . .'

It is obvious from these statements that the industry may try to stall the gazettal of the proposed national parks, to procure more concessions for their own profitability. Conservationists must be wary of the animosity of the timber industry and continue to applaud and support the government's decision.

Conservationists throughout Australia strongly support the Wran government's decision on rainforests. This feeling was witnessed by Joan Staples of the North Coast Environment Council at a national forestry activists meeting in Melbourne late last year, where the general consensus was that NSW has achieved the major forestry victory in Australia.

The Australian Conservation Foundation in its newsletter of December 1982 commented, 'ACF believes the NSW decision sets a new standard of ecological responsibility in Australia. It calls on the governments of other states containing rainforest to follow suit.'

The NSW government's decision is particularly significant in recognising the importance of employment as a key factor in environmental planning. If the gazettal passes through parliament without alterations to the October decision it will have been a major victory for environment groups.

**Contact:** More information may be obtained from Total Environment Centre, 18 Argyle St, Sydney, NSW 2000. Tel: (02) 27 4717; National Parks and Wildlife Service, GPO Box 2666, Sydney, NSW 2001. Tel: (02) 27 7971; National Parks Association, 399 Pitt St, Sydney, NSW 2000. Tel: (02) 264 7994.

**Action:** Letters of support and congratulations can be sent to the Premier and the Rainforest Cabinet Committee, c/- Parliament House, Macquarie St, Sydney, NSW 2000.

GARRY WERREN

## REVIEWS

### Film

**Greetings from Wollongong.** Produced by Steel City Pictures Collective, directed by Mary Callaghan, 35 mm, colour, 40 minutes. Available from Film Exchange, Tel: (02) 33 5360.

It is sadly appropriate that Wollongong is referred to as the 'Leisure Coast' — for thousands of teenagers living in the region, there are few alternatives to the imposed idleness of unemployment.

Just over a year ago, about 200 people attended the Vista Theatre in Wollongong to witness the end result of a unique community project — a 40-minute film called *Greetings From Wollongong* which portrays the lives of some of these teenagers. It tells the story of two unemployed teenage girls, Debbie and Gina, 'who are growing up in a coastal town, and their less-than-satisfactory relationships with boys. Debbie is a single parent, Gina is the Australian-born daughter of an Italian family. Both live at home in blue-collar Cringila, a suburb of Wollongong surrounded by steelworks, with a large migrant population suffering greatly from Australian Iron and Steel's massive retrenchments.

The film's style lies somewhere between fiction and documentary. It has no distinct plot, climax or resolution. A day in the lives of the two girls is depicted, and this is a catalyst for a documentary, a series of images and events which independently examine issues associated with unemployment.

There are many pressures which make being unemployed worse, and which are contrary to the needs of people living on very limited incomes. Perhaps the most profound of these pressures comes from advertising and the popular media, which imply that consumerism is part of normal living. But people on the dole don't have the means to be good consumers. This polarity is nicely demonstrated in the film by an opening shot featuring a soft drink advertisement. Suddenly the filmed sequence cuts to animation, still featuring the same billboard. Across the bottom of the ad comes a line of jingles and clichés. The young models are replaced with photos of Gina, Debbie and two friends, Steve and Hickey. The words read: 'unemployment in the 80s . . . the real thing . . .



From the film *Greetings from Wollongong*.

*Greetings From Wollongong*.

'The reason I wanted to be involved in the film,' said 19-year-old Tina Waller, who plays Debbie, 'was to let people know what it's like to be unemployed. The film can't offer any suggestions to improve the situation. I don't think anyone really can — but at least people should try to understand what it's like.'

'I know what it's like to be unemployed and female in this city — it's a dead end', lamented 20-year-old Lorraine Palamara, who plays Gina. 'Unlike most cities, Wollongong centres around the steelworks and related industries, which even in better times offered few opportunities for women. Now the whole industry is winding down.'

Tina agreed, 'It seems so much harder for girls to get decent work anywhere, not just in Wollongong. Guys at least can usually find casual labouring jobs, but girls seem to require far more skills and qualifications. Even if you do have the skills, chances are that when you apply for a vacancy there are dozens of other equally qualified girls going for the same job.'

Another burden for unemployed girls, according to Tina, is being deprived of many commodities girls are expected to have. 'I don't think being female is a handicap — I enjoy being a girl. But these days girls are under pressure to have lots of nice clothes and jewellery, not to mention an array of cosmetics. These are luxuries you simply can't

afford on the dole.'

Another issue the film deals with is migrant unemployment. 'For some migrant kids, unemployment can be a real problem', says Lorraine. 'Apart from language problems, many of these kids come from families where the work ethic is particularly strong, and it's very difficult when these expectations can't be met.'

*Greetings From Wollongong* was written and directed by Mary Callaghan, and was produced by the Steel City Pictures Collective. Filmed with a budget of about \$45 000, it was made with assistance from the Women's Film Fund, the Australian Film Commission and the Department of Youth and Community Services.

Apart from Geoff Morell and Gordon Streek, most of the actors were unemployed with no previous acting experience. Nonetheless, the quality of performances is extremely high. The film also has an impressive soundtrack, with songs from Mental as Anything, Sekret Sekret, Johnny Burnaway and a Wollongong band, Sunday Painters.

Despite its overall success, when *Greetings from Wollongong* was shown to a private audience of local community, union and civic representatives last September, the result was — astonishingly — threats of action to prevent its distribution. Retailers objected to one scene which showed a store manager harassing a female employee. They claimed the store could be identified by



## REVIEWS

the uniforms worn by characters in the film. Local journalist and town identity Ethel Hoskins Hayton MBE commented that 'anyone who saw the film would give Wollongong a wide berth'. The Lord Mayor, Frank Arkell, made a rather puzzling statement that 'just because a child has buck teeth, you don't have to point it out to him'.

Yet there was also a reaction in favour of the film. Wollongong Positive Action Committee member Sid Long said that at least the film had a positive approach to the problem. *Greetings From Wollongong* 'was a product of which any city could be proud,' Mr Long said. He said the Positive Action Committee had been formed to counter 'knockers' in the community.

The person perhaps most startled by the criticism was director Mary Callaghan:

At first I was astonished - I couldn't believe anyone could be offended by the film. We had three objectives when we made the film - we didn't want it to be patronising, negative, or offensive.

I think some people may have been upset because they thought I was a Sydney filmmaker trying to give their town a bad name. The fact is I was born and raised in Wollongong. Having spent 17 years there, I feel very deeply for the region and its current problems. That's precisely why I made the film - I was very concerned with the quality of life in Wollongong, especially for those who have been affected by the recession. I was particularly interested in the effect unemployment had on people - how a force beyond their control instilled a notion of failure among youth; how it affects migrants with a strong work ethic.

Steel City Pictures was formed two years before we started filming. It was a mammoth project designed to involve as many people as possible: to find out as much about the issues as we could. We didn't want to make just another hard luck story with talking heads. Instead the film is very constructive - it shows development within peer groups against negativity. The making of *Greetings From Wollongong* was a successful community exercise. It involved people who otherwise would probably never have had the opportunity to make a film. This is their film. They're proud of it. You don't spend years on a project and then have it stopped.

Chris Donnelly

\*Portions of this article appeared in the *Illawarra Mercury* on 22 January 1982 and 8 October 1982.

Chris Donnelly is a journalist on the *Illawarra Mercury* and lives in Wollongong.

**Burning an Illusion.** Directed by Menelik Shabazz, 16 and 35 mm, colour, 107 minutes. Available for rent or sale from Sydney Filmmakers Co-operative, Tel: (02) 33 0721

*Burning an Illusion* is a realistic, unsentimental and moving portrayal of the way in which racism affects the day-to-day existence of black people in Britain today. It is Barbadian-born Menelik Shabazz's first feature film. Issues of racism, women's oppression and class struggle have been incorporated in the narrative of the film.

The lead role is played excellently by Cassie McFarlane, who, as Pat, strikes up a relationship with Del, played by Victor Romero. Pat, a receptionist, responds to being black in a hostile white society by trying to adopt the values of the dominant society - with a little help from Barbara Cartland. Del, on the other hand, is much more aware of his status in society. He moves in with Pat after a quarrel with his father and then loses his job because of standing up to a racist foreman. This event brings to the surface their differing world views. Bitter fights follow - Del is frustrated by his unemployment and the powerlessness which ensues from it, and resorts to physical aggression. Pat ultimately kicks him out of her flat and life, but later takes him back again.

On a night out at a club Del gets arrested, badly beaten by the police and given an unusually severe sentence. From this point on the film expands beyond the personal relationship to the wider context of societal pressures. Pat's naivety is shattered as she encounters the brutality and callousness of the police and prison officials. For the first time she comes to terms with herself as a person of African descent in British society. Del for his part begins to see Pat and their relationship in a different light. Conditions in prison only make him more militant. The changes they undergo are thorough but at all times believable, as their experiences serve as a catalyst for their transformations.

A very interesting and indeed for me an instantly recognisable aspect of the film is the way in which the women deal with problems with their men and the system. They display a quiet assertiveness and determination. On one hand they refuse to tolerate male chauvinistic behaviour - even the long-suffering Sonia (Beverley Martin) finally gives Chamberlain (Malcolm Fredericks) the boot. On the other hand they realise that black women and black men are oppressed by both white women and men.

The photography is excellent. And Shabazz has matched actor and character perfectly: Victor Romero is a perfect foil for Cassie McFarlane. He very capably executes the task of moving



From the film *Burning an Illusion*.

from being charming and gentle to being sexist, intense and militant, and finally supportive.

Whilst the film is set in Britain its relevance is almost universal. Shabazz has succeeded in making a film that deals with explosive issues in a truthful and sensitive manner. The beautiful African costumes and hairdos lend their own visual charm to the film.

Christine Donts-Quanta

Christine Donts-Quanta works with the South Africa Support Campaign in Sydney.

## Books

**Nunawading Energy Study** by the Conservation of Urban Energy Group, Conservation Council of Victoria, Melbourne, 1982, 108 pages, \$3 (soft cover). **Towards a Sustainable Energy Future for Victoria: an Energy Efficient Scenario** by B E Manton, Australian Conservation Foundation, Melbourne, 1982, 188 pages, \$16 (soft cover).

Victoria has been fortunate in having a history of research, writing, and campaigns around broad energy policies and energy investments, particularly SEC stations such as Newport and the Driffield proposal. These two recent reports build on this tradition. They are major contributions from the environment movement to new energy policy for Victoria (and they give encouragement to the other states).

The *Nunawading Energy Study* is the outcome of two years work by the CUE group, a devoted collective whose aim is to develop and test urban and transport planning strategies which meet the real needs of people for employment, recreation, entertainment and social interaction, while reducing energy requirements.

In 1978 the CUE group put together the seminal work *Seeds for Change*. Their study of Nunawading, an outer Melbourne suburb, attempts to apply the principles

of that earlier book to planning in one municipality, at the invitation of the local council. They propose a substantial improvement and reorganisation of public transport combined with a redistribution of community services: a local bus stop becomes a neighbourhood house and milk bar; the railway station, to which buses feed, becomes the heart of a revived local shopping and service centre.

This strategy attacks directly the predominance of the private car, the growth of giant car-based shopping centres, and the continued urban sprawl. It proposes in their place more medium-density housing development and the restriction of growth to the points at which public transport is available: neighbourhood, local and district centres, and the central business district.

The energy implications of the study are as dramatic as its political implications. Applying its 'cluster and connect' principles of planning would enable people to be better off both socially and financially - by some \$35 a week for average household - while saving nearly 70% of the transport fuels consumed by trips to work, shopping, education, recreation or holidays.

By contrast, the ACF's *An Energy Efficiency Scenario* covers more familiar territory. Nevertheless its lessons are just as important. It sets out to estimate just how much energy could be saved through a rigorous energy conservation program in Victoria.

Energy conservation is one of those issues on which everyone agrees but few take very seriously. The results of the ACF study, however, suggest that energy savings are potentially as important an energy 'source' as oil or gas. Annual energy savings after twenty years would be as great as present total consumption by Victorian industry if the state government adopted the sort of policies recommended. Economic growth could continue on no more energy than currently used, and renewable energy sources would be able to substantially reduce our demands for fossil fuels.

By comparison with the CUE study, the political premises of the ACF study - like its technical assumptions - seem conservative. Unfortunately, this does not mean its conclusions will be readily accepted. The barriers to any comprehensive conservation program are considerable. Both CUE and the ACF project are now turning attention to the political obstacles which stand in the way of a sustainable energy future for Victoria.

Don Siemon

A summary of the results of the ACF study is available for the cost of postage from ACF, 672B Glenferrie Rd, Hawthorn, Vic 3122.

Don Siemon works on Victorian energy issues for the Australian Conservation Foundation.

**The Nuclear Environment** by Les Dalton, Friends of the Earth and Movement Against Uranium Mining, Melbourne, 1983. Available in March 1983 from Friends of the Earth, 366 Smith St, Collingwood, Vic 3066, or Movement Against Uranium Mining, Environment Centre, 285 Little Lonsdale St, Melbourne, Vic 3000, for \$6.00 plus \$1.00 postage.

When I was first asked to review this book, I was a bit intrigued. Another book on uranium mining and nuclear power in Australia! I mean, hasn't it all been said before? You know, *Red Light for Yellowcake*, *Ground for Concern*, the Ranger Inquiry reports and the FOE/MAUM responses to them, two books on Maralinga, ... it's all been pretty well documented.

Well, frankly, if you've read some of those and kept up with the most important stories which have surfaced in the last few years, you won't learn much that's new by reading *The Nuclear Environment*. In fact, you might be quite bored by it. On the other hand, if you're a school teacher looking for a good reference book for yourself and your students, it's a quite excellent publication. It covers all related matters and is right up-to-date, inexpensive and very clearly written.

The book's thirteen chapters look at all aspects of the nuclear industry, starting with the Greek philosopher, Democritus (who, 2000 years ago, proposed, but was unable to prove, that everything in nature is made up of atoms). It takes us through the various stages of the discovery of radioactivity and development of the bomb, uranium mining, enrichment, reactor operation, waste disposal, the impact of radiation on health and the environment, and the alternatives.

The four chapters on the alternatives to the nuclear society make it clear that the debate is not just about which energy sources will be the safest or the most efficient. It is also very much concerned with the social implications of energy systems. A nuclear society is certain to be more centralised, and more likely to restrict personal liberty than is a solar society based on small-scale technology and a thrifty approach to energy use.

Of course, all this has been said before. But to my knowledge, it hasn't ever been explained so clearly all in the one place. Also, the frequent use of graphics, quotations and the occasional map, helps greatly to explain the text and to hold the reader's interest.

On top of this, the book has the advantage of being up-to-date. Events of the last few years, such as the revelations about the 1981 leak at the Ranger mine, the continuing failure to find a solution to the waste problem, and the rows over the use of radioactive



Illustration from *The Nuclear Environment*: fish swim around dumped barrel of radioactive waste.

tailings at Port Pirie and Byron Bay, are all well covered. On the international scene, we learn, for example, that plans have recently been revealed in the UK for special bomb shelters to ensure the survival of the technocratic, bureaucratic and military elites.

The compilation of the book has obviously involved a copious number of person-hours. There has been admirable attention to detail, and a lot of effort has been made to grab and hold the reader's interest.

After a slow start, the issue of uranium and nuclear power is now firmly embedded in the curricula of most secondary schools. If this book is well marketed it should find its way on to quite a few library shelves. Although the price at \$6.00 is already rather low, a small discount for bulk purchases by schools could help it to become a best seller in the field.

Neil Barrett

Neil Barrett works for Environment Audio-Visuals and has worked with Friends of the Earth on anti-uranium campaigns.

**Exiles at Home: Australian Women Writers 1925-1945** by Drusilla Modjeska, Sirius, Melbourne, 1981, 283 pages \$19.95 (hard cover). **Sugar Heaven** by Jean Devanny, Redback Press, Melbourne, 1936, reprinted 1982, 317 pages, \$8.95 (paperback).

According to Norman Mailer, 'the one thing a writer has to have is balls'. After reading Drusilla Modjeska's book on Australian women writers of the twenties and thirties one is more likely to conclude that guts were essential rather than other parts of the anatomy. The women she writes about had to be pretty determined. Generally they had a struggle to support themselves and fulfill obligations to their families; most of them had to contend with the predominant view that their writing was



## REVIEWS

really only a hobby, not to be taken seriously.

Today, following decades of neglect, writers such as Miles Franklin and Jean Devanny, Kylie Tennant and M Barnard Eldershaw are being rediscovered and reprinted. Drusilla Modjeska places these women writers in their social context. Economic recession and unemployment, political crisis and international tensions were exposing the deep cracks in the social system. While the women often wrote about their personal conflicts, about sexuality, marriage, domesticity, they could not ignore the world around them. Some, such as the literary critic, Nettie Palmer, found their liberal-nationalist politics inadequate, yet remained tied to individualism and a belief in the value of a cultural elite. Others such as Katherine Susannah Prichard and Jean Devanny joined the Communist Party and became committed to fundamental social change. While this gave them a milieu and a social analysis, it also brought problems, in an increasingly bureaucratic and male-dominated organisation.

In spite of political differences these women were part of a developing literary tradition. Their novels are feminist, or have prominent women characters. They were concerned with contributing to a domestic 'progressive and assertive national literature', in contrast to the works produced by expatriates.

For anyone interested in these themes, or in the period between the wars, this book is essential reading. You don't have to have read all the novels it deals with; Modjeska is concerned with relating the writers to each other and the period rather than with detailed discussion of individual books. In fact, her work could be used as an initial survey of reading in the area.

I have criticisms of course. While discussing the conflicts and dilemmas the writers faced, Modjeska maintains a non-committal detachment which I find irritating. For instance she shows us the disadvantages and advantages of joining the Communist Party, but does not give us her own views. She constantly refers to the social context and yet ignores a major aspect of the social environment of the times, the mass struggles around unemployment and wages and the participation of women in these struggles.

To see that side we have to turn to one of the novelists. Jean Devanny was a New Zealander who came to Australia in 1929 in time to experience the

## EXILES AT HOME

Drusilla Modjeska



Australian Women Writers 1925-1945

struggles and strife engendered by the economic crisis of the thirties. No diffident observer of life, she threw herself passionately into the fray, and as a member of the Communist Party was much in demand as a speaker at strikes and demonstrations. At the same time she managed to write fourteen novels.

With Devanny there was no question of studied objectivity or demure femininity. 'Words at express speed . . . a tongue like an axe in a wood-chopping contest. She never minded how the chips flew, so long as she penetrated to the heart and brain.'

The novel *Sugar Heaven* is set against the background of the North Queensland sugar workers' strike of 1935. The issue was the burning of the cane before cutting, necessary because of the rats which carried a form of the plague. The strike confronted a united front of the big employers, the corrupt Australian Workers' Union and the bureaucratised ALP government. The strike was militant and determined, but was eventually defeated, largely, according to Devanny, because the leaders failed to involve the wives sufficiently.

The central figures in the novel are two women. Dulcie, recently married to Hefty, a cane cutter, is initially a narrow-minded, inhibited young woman who opposes strikes and has fixed ideas about life. During the course of the strike she undergoes a complex transformation. She develops into a leader of the women, into a person with initiative and confidence.

'She felt herself changing, not subtly nor delicately, but violently, in leaps.'

A contrast is Eileen, Hefty's ex-wife, now married to Hefty's brother Bill. With a developed political understand-

ing, Eileen faces a different conflict. Her extra-marital affair with an Italian worker is frowned upon.

'Women must be above suspicion to get into the Party.'

Eileen's dilemma is never really satisfactorily resolved and this is largely because it was a reflection of Jean Devanny's own running battle in the Party over the right of women to freedom of sexual expression.

In this and in other ways, *Sugar Heaven* reveals the conflicts in Devanny's life. Always torn between political activity and writing, she was unable to give her novels the reworking they needed. As her daughter later said:

It is a fact you can't work your guts out . . . organising peace conferences, speaking on street corners, travelling the country speaking and raising funds, fighting police, pamphleteering . . . And do your best writing at the same time.

*Sugar Heaven* shows the effect of this in its unfinished quality. But it also gains from its author's personal involvement. Jean Devanny is still remembered in the region for her role in the struggle which was 'not a struggle for wages but for life'.

*Sugar Heaven* is one of the most important socialist realist novels in Australia. It is almost alone in dealing with the question of the organisation and mobilisation of women in the working class movement. *Exiles at Home* should be read for its contribution to an understanding of Australian literature. But *Sugar Heaven* is a contribution to the struggle for 'a free and joyous life to which humanity as a whole has a right.'

Janey Stone

Janey Stone is active in the women's and socialist movements and has published articles on women in the depression in Hecate.

**Resource Manual for a Living Revolution**, alias, **The Monster Manual** by Virginia Coover, Ellen Deacon, Charles Esser and Christopher Moore. Published by Movement for a New Society, Philadelphia, USA, 1978, 351 pages, approximately \$11 (soft cover). Available from the Melbourne Non-violent Action Training Collective (Groundswell Victoria), 4 Chambers St, Brunswick, Vic 3056.

The campaign to save the Franklin River in Tasmania's South West has brought large numbers of people into contact with the tactics of non-violent action as a means of changing government policy. Non-violent action, or at least the use of peaceful demonstrations to express disapproval of the current social order, is not new to Australia. What is interesting about the present use of non-violent action is that people are discovering that it involves far more than the 'passive resistance' many have believed it amounts to.

The *Resource Manual for a Living Revolution* will soon disabuse anyone of the notion that non-violent action involves no more than sitting in front of bulldozers. For a start, the *Manual* is long and extensively cross-referenced. The index shows that it is a comprehensive and detailed guide for groups involved in campaigns for social change.

The *Manual* encourages the reader to examine and develop a theory and strategy for social change by analysing the existing social order and its historical context. Such an approach allows the activist to understand the theoretical basis for a particular campaign, rather than relying on an elite for direction. One defect of the book is that this section, while its intent is excellent, is very short and it is necessary to go to the other publications listed in the *Manual* for further resources for analysis and the history of non-violent action.

The sections of the *Manual* most immediately accessible are those dealing with working in groups. While an understanding of non-violent theory is essential, it is the aspects of group cohesion, decision making and facilitation of meetings which have received most attention in the non-violent action training conducted for the blockade in the South West. The *Manual* is, in fact, the principal source of material and exercises for these training workshops, and the Tasmanian Wilderness Society's *Blockade Manual* draws heavily on it.

Central to the non-violent action campaign is the use of consensus decision making. The *Manual* makes clear that this is not simply a negative process — a failure to vote — but is a very clear and structured method of coming to a decision which ensures the participation and 'best thinking' of everyone in the group. Detailed notes and exercises are given in the *Manual*, together with very thorough guidelines for meetings and an organisational structure which relies on and encourages leadership by the whole group rather than an individual or clique.

Although the *Manual* provides an excellent starting point for anyone wishing to understand the basics of non-violent action, it is best used as a practical handbook for training in non-violent action. In this context, it provides the most complete and useful approach to organising a campaign which I am aware of. The *Manual* is designed to be used by groups of all types, from large environmental, political or peace organisations, to small neighbourhood support groups. Anyone involved in analysis, self-help or activist groups will find many useful starting points in the *Manual*.

Paul Baker

Paul Baker is the project officer for the Australian Conservation Foundation's Resources, Industry and Employment Committee and has been active in the Melbourne Non-Violent Action Training Collective.

**The Prison Struggle: Changing Australia's Penal System**, by George Zdenkowski and David Brown, Pelican, 1982, 464 pages, \$14.95 (soft cover).

*PRISONS ARE THE CRIME* reads one piece of graffiti in an inner suburb of Sydney. If graffiti can be seen as a kind of social barometer then this indicates a fairly radical shift in attitudes to imprisonment — at least in certain sections of the Australian community.

George Zdenkowski and David Brown, of the Law Faculty of the University of NSW, offer a radical critique of the Australian penal system by focusing on events in NSW over the last decade, particularly the Nagle royal commission into NSW prisons conducted in 1978. They set these events within an analysis of the prison in late capitalist society, with reference to Marx and to Michel Foucault, a French historian. Foucault's book *Discipline and Punish* has been the spearhead of a fundamental reappraisal of all social institutions, from schools and hospitals to barracks, factories and reformatories, along what he calls the 'carceral continuum', to the prison.

The first four chapters will provide students of law, politics, history and sociology with a broad-ranging analysis of some of the central debates of the 'new criminology'. The authors go on to examine NSW prisons in the last decade, tracing the rise of the recent wave of opposition to prisons back to the Bathurst Jail bashings of October 1970, and the explosive Bathurst riots of 1974, which precipitated the call for a royal commission.

The participants in the struggle — the prisoners and prison groups, the prison officers and police, the lawyers and judges, the radical action groups and the more conservative welfare organisations, the media, the political parties and the trade unions — are identified and placed in a social and political context as the royal commission is finally conceded, executed, and eventually, it seems, buried.

The documentation of this large central section of the book is excellent, bringing together much material that has never been published before or was previously accessible only in small-circulation journals and newspapers. The thoughtful analysis with which this material is presented calls into question many of the notions generally expressed about, for example, equality before the law, by describing clear examples of double standards of justice as they have been applied to prisoners, prison officers and the police.

In the book, prison activist Bernie Mathews is quoted as saying:

Prison is the end of the road. An overcrowded garbage can that society carefully chooses to ignore. For most of us behind these walls, the

## THE PRISON STRUGGLE

Changing Australia's Penal System



George Zdenkowski and David Brown

road to prison has been a steady procession of boy's homes and reformatories . . . The juvenile justice system is a timeless machine that sucks children in at one end with the seal of judicial responsibility, and spews them out again on their 18th birthdays to become the endless flotsam and jetsam that continually float through the NSW penal system.

The authors accept that knowledge or consciousness of past prison struggles is a social force that generates resistance and change. In this spirit they offer their book itself as an act of intervention. 'Without such a history' they write, 'without such a consciousness, progressive political struggle is easily cast adrift in a sea of single instances'.

George Zdenkowski and David Brown have thrown out a challenging analysis of prisons to the establishment. The debate that they have initiated should be taken seriously, for the issues they raise are central to the future directions in Australian society.

Irina Dunn

Irina Dunn is a freelance journalist who was editor of Inprint, the NSW prisoners' newspaper.

**Another Way of Telling** by John Berger and Jean Mohr, Pantheon Books, New York, 1982, 300 pages, \$12.95 (soft cover).

Political activists, and all those concerned with presenting information to an audience unfamiliar with the implications of that information, must always consider how the method of presentation affects how the information is interpreted. Often the 'way of telling' works against the intended message.

We live in a society where the visual image is seen as being more important than the message it contains. When



## REVIEWS

choosing images for publication, how often are photographs chosen merely because they are aesthetically pleasing, to attract people to the article they illustrate? This is a question that writers, designers and readers must ask themselves if any publication is to be understood in depth.

Too often visual images – be they photographs or other graphics – are used in the same way as in advertising, to subliminally affect readers. Very rarely are we encouraged to examine an image to discover something new about an issue. Usually the illustrations just reinforce our existing ideas and experiences. If you see a photograph of demonstrators for a cause you support, it only reinforces the idea that the cause is just. It must be – other people agree with you. And if you don't support the cause, the demonstrators are naive, misguided or just a nuisance.

The placement of visual images is often carefully organised to make recognition of a specific publication easier. *The Age*, a Melbourne daily, usually runs its lead story on the top left-hand columns on page one and balances it with a photograph on the right-hand side of the page. *Chain Reaction* has a house style as well, the aim of which is to produce an homogeneous appearance. What readers can recognise easily is reassuring and perhaps not conducive to encouraging the close examination which may bring about a change in their understanding.

This commentary is perhaps not quite a review of *Another Way of Telling* but more an attempt to look at some of the issues it raises. The book attempts to develop a theory of how photography works both on and with its viewer, with particular reference to the narrative a photograph seems to produce. Once the beginnings of this theory have been established, there is a lengthy photographic essay that is not an illustration for the text, but is a self-contained attempt to show how photographs can be used consciously.

I believe the issues the book raises are highly political, and extremely relevant to any movement dedicated to changing existing social value systems. There has been a continuing debate about the function and practice of photography, and the use of imagery and its political implications. For those interested in following up these ideas I recommend *Another Way of Telling*.

Rick Mitchell

Rick Mitchell is an unemployed non-academic thinker.

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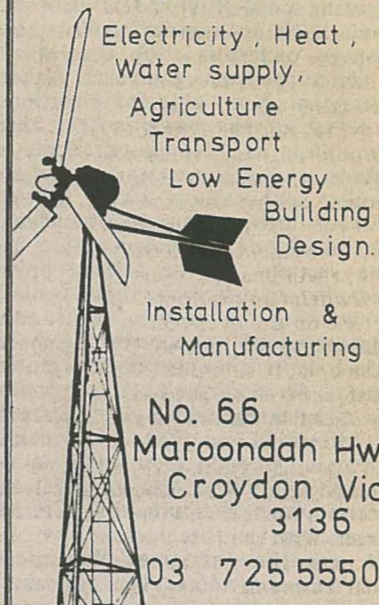
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### Chain Reaction

## ACTIVIST CONTACTS

The 1983/84 Activist Contacts listing will appear in the next edition of *Chain Reaction*.

The listing includes groups active on issues such as energy, resources, environment, labour, land rights, peace, women's liberation, and gay rights.

If you'd like to be listed, send us your group's name, address and telephone numbers by 8 April 1983.

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

4 generated. The power has been earmarked for an uranium enrichment facility of the centrifuge type, a prototype of which has been developed in co-operation with South African and Japanese technologists at Lucas Heights, Sydney. Recent Tasmanian security legislation overcomes the inevitable democratic hurdles to such a project, while the imminent showdown at the dam site under the nuclear industry's ubiquitous law-and-order catchcry will prove reassuring to the foreign corporations and banks which have been approached to provide capital and expertise.

The combination of high unemployment and available power will in a few years overwhelm any rational debate on the intrinsic desirability of a nuclear Tasmania. It would be, I trust, supererogatory to point out that a uranium enrichment facility, while providing Australia with its own nuclear option, would be a certain nuclear and terrorist target. With the new dam, Tasmania goes nuclear. Is that what Tasmania wants? Is it giving our kids a fair go?

Peter Rout  
Savage River, Tas

### World Bike Ride

I have spent the last three months riding my bicycle around Japan in a group with seven other people from Australia. We are the Japan contingent of the World Bike Ride for Peace, Disarmament and a Nuclear Free Future. This ride began from Canberra in March 1982 with 45 riders who travelled by bicycle up the coast and across Australia to Darwin by July, carrying the message of Peace and Disarmament and protesting against Australia's contribution to the nuclear industry – the mining and export of its 20% share of the western world's uranium deposits.

Two members of the Bike Ride arrived in Japan in time for the Hiroshima and Nagasaki Day Remembrances on August 6 – 9 and attended the world conference against atomic and hydrogen bombs, held at that time. Eight members have cycled from Hokkaido in the North to Hiroshima. We will soon be

joined by two more riders from Australia and will complete the Japanese segment of the ride in Nagasaki.

Our Japanese travels have shown us a strong peace movement throughout Japanese society – not surprising in a country where so many people live with the Hiroshima/Nagasaki experiences as an everyday memory. We visited a hospital for bomb victims today, where the people we spoke to repeatedly expressed the wish that we tell the people of Australia and everywhere we travel, that they never want anyone anywhere to go through the hell they have known since those August days in 1945.

These last weeks we have ridden through this same country, over mountains and valleys and along spectacular coastlines – dotted all too regularly with looming concrete monsters – the 24 nuclear power plants constructed in Japan, supplying 15% of the electricity which helps maintain this country's high standard of living. It has appalled us to find that the same people who work ardently against nuclear

weapons proliferation are often relatively ignorant about nuclear reactors and their enormous hazards. They have a poor record on the accident register here, as everywhere.

We have heard of teenagers being employed to work in areas of high radiation in the reactors and of the 'power plant gypsies' who go from one reactor to another doing dirty work with little safety equipment, and of course, no medical records are kept on them. Japan has over 200 000 drums of radioactive wastes it wants to dump in the Pacific Ocean.

Our Australian uranium is helping to fuel Japan's nuclear power plants. The Australian uranium mining industry is in criminal compliance with the warmongers and merchants who are bent on destroying this planet.

The people of the Bike Ride will soon travel further, in New Zealand, China, Russia and to Europe, to the Peace Conference in Berlin in May 1983. From under the shadow of these reactors we urge you to help stop this

madness now – demand an end to the mining of uranium in Australia, and let us work together for a nuclear-free world, so that we might all survive.

Miranda Wheeler  
*World Bike Ride for Peace,  
Disarmament and a Nuclear  
Free Future.*  
Tokyo, Japan

### Nuclear war

\*Many of your features are excellently researched, and presented in a lucid, readable and balanced manner. The article on Antarctic pollution stands out in my memory, and before me as I write is the article by Beatty, Perinotto and Tarlo on Tasmanian dams and economy. So you can well

'The USA has displayed a continued will to power in the post-war period which has found expression globally in nuclear

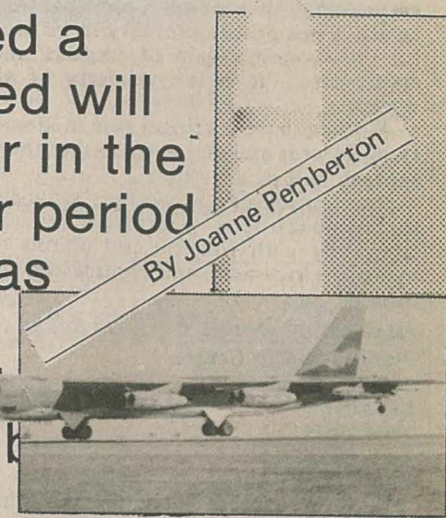
imagine my disappointment on reading that sackful of clichés written (or rather, parroted) by Pemberton! So flagrant is her use of technical terms (eg 'reactionary') as value-judgements or emotive flags instead of descriptions, that I was reminded of a Spartacist comic.

Objectivity and personal commitment are not enemies; often a sense of rationally controlled passion is the most convincing part of an advocate's case. Apparently such discipline is too much like hard work for Pemberton; or perhaps, like me after reading her ravings, she was not sure what she was driving at except to 'maintain the rage'. One thing is certain; she offered no program for changing an unsatisfactory state of affairs, so intent was she to prove Uncle Sam

## LETTERS

responsible for all the evils of the world.

There is a great deal of truth in her belief that the USA is guilty of subversion and economic repression. But only an idiot expects a program of hate, accusations, and counter-terror could do anything except add paranoia to greed and arrogance, resulting in yet more manic oppression. Aggressors have



rarely turned back because they were unpopular!

A more practical and creative response is to attempt to convince the Americans that it is not in their best interests to carry out or support such practices.

R Springett  
Denistone, NSW

\*These letters have been edited for space reasons.

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.



## ACTION GUIDE

### Workers health contacts

#### WORKERS HEALTH CENTRES:

Workers Health Centres operate on the following basic principles:

- All workers have the right to work which is not hazardous to their health
- Prevention of work hazards is the only way to good health in the workplace
- Information about occupational health is not private property to be used for the economic gain of 'experts' and employers - it is the property of all workers
- Workers have a critical role in identifying hazards and acting to correct them through industrial action.

The centres support workers' struggles for non-hazardous workplaces by collaborating with workers and unions to identify, document and eliminate work hazards.

#### New South Wales

**Workers Health Centre**  
27 John St  
Lidcombe  
NSW 2141  
Tel: (02) 646 3233

The NSW centre is funded from a variety of sources including the state government, unions, private donations and medical income. It operates as a collective, with no official positions. All workers receive equal pay and have an equal voice in decision making.

The centre provides information on workers' health and safety, publishes pamphlets in a number of languages - Arabic, English, Greek, Spanish, Serbo-Croatian and Turkish - and also produces the magazine, *Work Hazards*. It acts as a meeting place for activist groups - there are currently groups working in four languages on the issue of repetitive injuries. The centre also conducts workplace inspections and arranges for representatives to speak at public meetings.

#### Queensland

**Queensland Workers Health Centre**  
5th Floor Trades Hall  
Edward St  
Brisbane  
Qld 4000  
Tel: (07) 221 5199

The Queensland centre was established

in 1981 with the support of the Queensland Trades and Labor Council and is funded entirely by contributions from unions and individuals. It answers requests for information about work hazards from unions and workers, and a library is available to workers who want to do their own research. The centre works with unions and workers to set up health and safety committees (both on the job and in unions) to formulate policies and to launch campaigns around specific work hazards, such as asbestos. It publishes the magazine *Hazards*.

#### Victoria

**Workers Health Centre**  
Trades Hall  
54 Victoria St  
Carlton South  
Vic 3053  
PO Box 93  
Carlton South  
Vic 3053  
Tel: (03) 662 3926

The Victorian centre is funded exclusively by unions and has one full-time worker, who answers queries related to workers' health and acts as an advisor on appropriate action. She also conducts on-site inspections of workplaces and compiles reports on specific work hazards which are published in languages appropriate to the industry.

#### South Australia

**Working Women's Centre**  
31 Gilbert Place  
Adelaide  
SA 5000  
Tel: (08) 212 3722

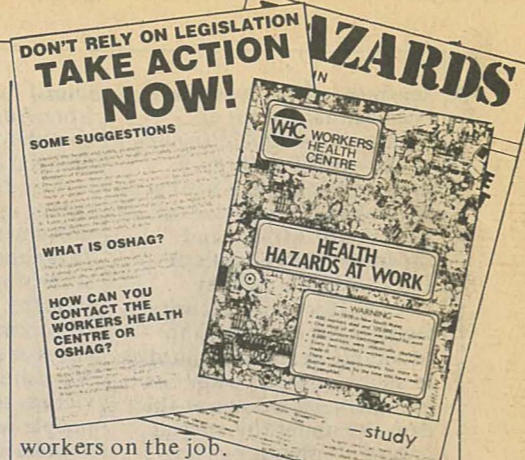
The centre works specifically on issues related to women workers' rights and acts as a referral centre for health and legal resources. In particular, it works in conjunction with the Adelaide Women's Community Health Centre and some official government channels. There are three full-time workers at the centre who individually handle specific areas, and who work in conjunction with a management committee. Leaflets are produced on particular issues, including a 'Workers Compensation Kit' and an 'Unfair Dismissal Kit'.

#### WORKERS HEALTH ACTION GROUPS

##### New South Wales

**Occupational Safety and Health Action Group (OSHAG)**  
Contact: Kaylene Chamberlain  
(02) 357 3378  
or Angelo Kalafatis (02) 698 9988  
**Workers Health Centre**  
Lidcombe

OSHAG is a group of rank-and-file trade unionists and trade union officials who are actively concerned with improving workplaces. The members see the only effective improvement to health and safety in workplaces coming as a result of involvement of unions and



workers on the job.

#### Victoria

**Workers Health Action Group (WHAG)**  
PO Box 271  
Carlton South  
Vic 3053  
Tel: (03) 662 1333

WHAG is a group of trade unionists, activists and academics who are concerned with the issue of workers health. The group organises general shop-stewards' courses, which involve aspects of workers health.

#### South Australia

**Occupational Health Action Group (OHAG)**  
31 Gilbert Place  
Adelaide  
SA 5000  
Tel: (08) 212 3722

OHAG is a group of health, research and industrial workers in South Australia. They are currently working specifically on the issues of repetition injuries and workers compensation legislation.

#### OTHER GROUPS

**Occupational Health and Safety Unit**  
Trades Hall  
PO Box 93  
Carlton South  
Vic 3053  
Tel: (03) 662 3511

The OHS unit was established in 1981, and although it is funded by the Victorian Trades Hall Council, it acts on a national basis in association with the Australian Council of Trade Unions. The unit recommends the following specific policies to be adopted by unions:

- the appointment of workers' safety representatives who shall be accountable to the union;
  - the elimination of workplace hazards or dangers, and refusal to accept payment for adopting hazardous or unsafe working practices;
  - training of union officials and health and safety representatives in occupational health and safety, through the Trade Union Training Authority;
  - negotiation of health and safety agreements with companies where there is inadequate legislation.
- The Unit also publishes a 'Health and Safety Bulletin'.

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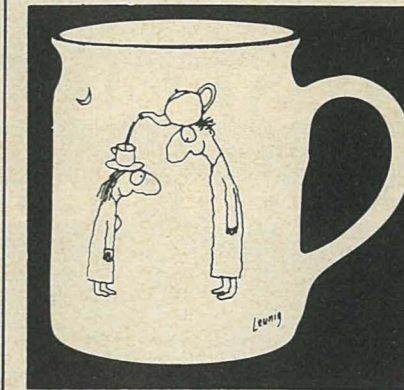
for information write to Dr R. Jones,  
Centre for Environmental Studies,  
University of Tasmania, GPO Box 252C,  
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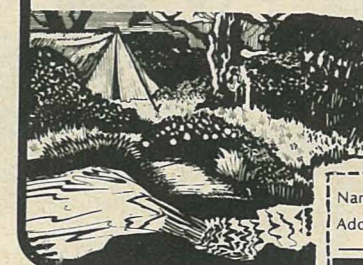
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