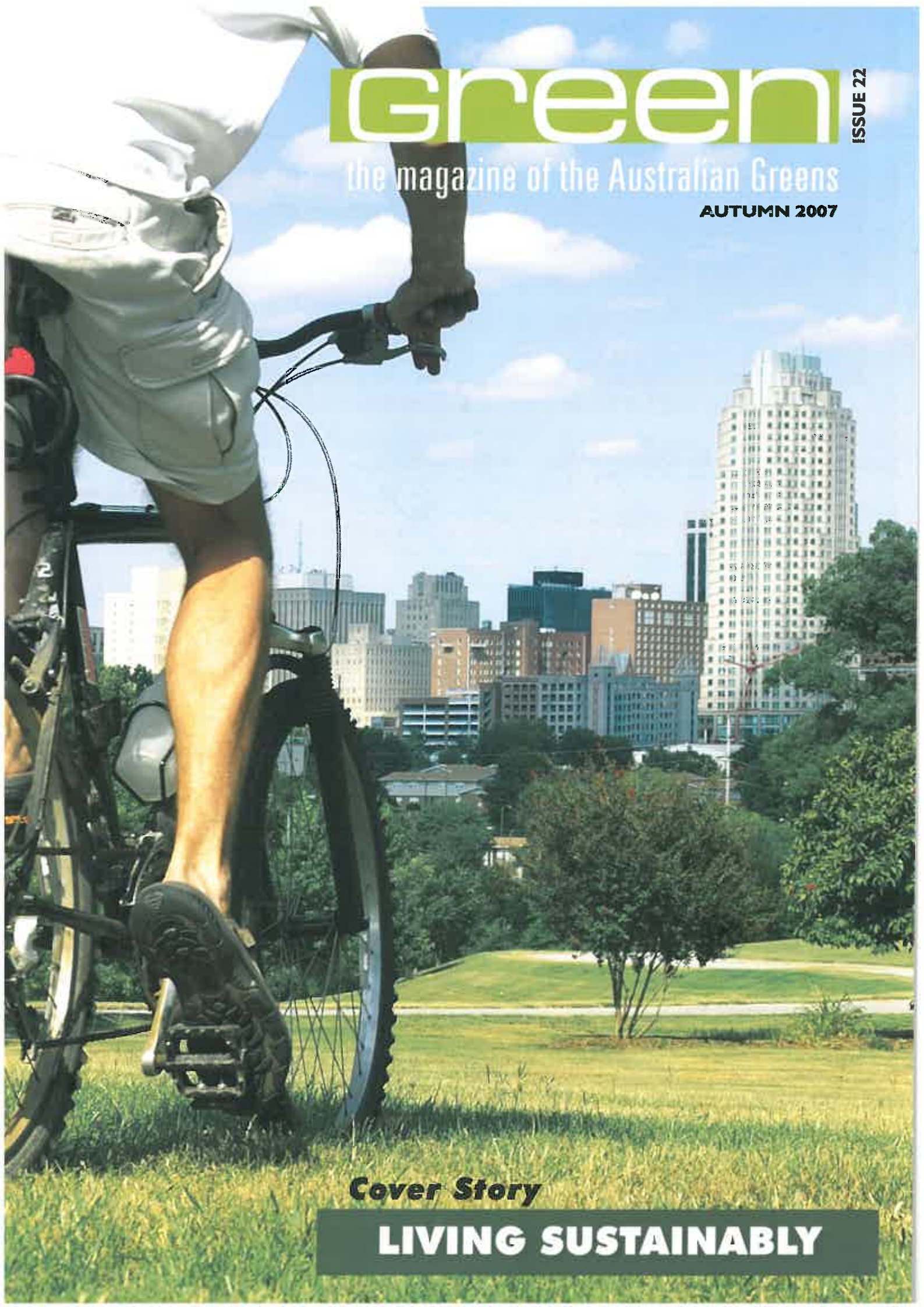

Green

ISSUE 22

the magazine of the Australian Greens

AUTUMN 2007

Cover Story

LIVING SUSTAINABLY

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regular features

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Contact Green Editorial: Drew Hutton and Brian Hoepper greenmag@greens.org.au
Advertising: greenmag@greens.org.au
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editorial

This edition links with the previous two editions on energy and climate change. These were critical of the failure of Australian governments which have presided over many wasted opportunities in areas like energy efficiency and renewable energy. This same period has also seen wasted opportunities in terms of organizing our living patterns and communities along more sustainable lines. There has certainly been no shortage of challenges to the quality of people's lives by ill-considered and unsustainable development projects but the community opposition to these has usually been piecemeal or NIMBY in nature rather than resulting in grassroots action for sustainable forms of living and community development. There are also widespread examples of popular adoption of unsustainable practices. The popularity of cars and air conditioning over the last decade is a testimony to this.

This is likely to change dramatically in the next few years as people everywhere respond to current environmental challenges and realize that only new ways of organising social life and resources can effectively combat global warming. Citizens facing prolonged drought and water shortages begin to realize that the water they use in their homes is connected to and dependent on a finite resource that also underpins the environmental health of their region. They therefore adjust their consumption patterns. In our home city of Brisbane residents are responding to a serious drought and rapidly declining dam levels by making the building and installation of rain water tanks one of the busiest local industries. Likewise, energy efficient practices and technologies are being integrated into people's lifestyles as the consciousness of the need for everyone to do their bit to reduce greenhouse gas emissions takes quantum leaps.

However, this edition of *Green* takes the view that living sustainably has many more benefits than simply responding to environmental threats. The ecological imperative actually provides us with the opportunity to introduce more collectivist, human-centered approaches to living in communities that accords better with meeting human needs than the rampant consumerism that has characterised capitalism in the developed world over the last half-century.

This view is articulated in this edition by John Hillcoat and Brian Hoepper who argue that modern consumerism is not only environmentally irresponsible and socially unjust on a global scale but also undermines those bonds of community solidarity that help make life more meaningful. Peter Cock, a veteran of Australian intentional communities, argues that an alternative mode of living which he and others pioneered in the seventies remains as relevant as ever. John Tracey explains that Indigenous culture can inform the goal of sustainable living even in such an embattled community as Palm Island. Sharon Beder reminds us that living a sustainable lifestyle is not as simple as buying some carbon credits. And three important articles provide practical insights into living more sustainably in everyday life - Kathleen Maltzahn and Andrea Sharam describe local water management in Melbourne, Lori Puster advocates and explains 'energy services' and David Wyatt unveils dramatically more sustainable paper production.

We would also remind readers that we encourage good-natured debate through our letters page like the response here by Ralph Cooper to Mark Diesendorf's article in *Green #21* . Please feel free to send us your contributions. We would also like to thank those members who send in book reviews.

Drew Hutton and Brian Hoepper

letters to editor

Should the Greens support wind farms?

When environmental vandalism is an issue the Greens always raise strident objections at any whiff of misinformation aimed at them. As a Green, I am no exception. In the last Green magazine, Mark Diesendorf alleged that 'bird kills are rare' (p.9). Bat kills are presumably so extremely rare as not to merit a mention. Is Dr Diesendorf aware of the international outcry against wind farms on the grounds of landscape desecration alone – an outcry that can't be dismissed as just NIMBY interests?

When powerful energy companies weigh in with their consultants, whose reputation and income is derived from shepherding developments through the convoluted appeals process, it is not surprising that the voices of the affected little people are seldom heard. It is not difficult, using expensive senior counsel, for power companies to make challenges by local interest groups so daunting.

Let me present Dr Diesendorf with some inconvenient facts. The Woolnorth wind farm in NE Tasmania kills the endangered Wedge-tailed Eagle regularly, not rarely. The numbers are not huge but this new (and expanding) wind farm is proving lethal, even in its infancy. You don't have to kill many top predators to upset the balance. In Tasmania independent ornithologists are already predicting local extirpation of this eagle. How ironic it is that, in almost every confrontation with the Tasmanian Government, whether logging the Wielangta blue gum forest or the logging of old-growth forests elsewhere in Tasmania, the Greens always proclaim the Wedge-tailed Eagle as a vehicle for conservation policy.

At Woolnorth almost as many bats (Goulds Wattled Bat) are being killed as birds. There is increasing evidence that the pressure gradient near the 300kmph, 45m spinning blades is enough to burst blood vessels of small animals, leaving no sign of external injury. So bats, and perhaps birds, don't have to actually collide to be killed. However, in a wind farm that is presently doubling in size - though small by world standards - how significant at a population level are these kills?

In the USA a Government Report to Congress (Sept 2005) stated that 1000 hawks are killed in Northern California by wind power facilities each year. In the mountains of West Virginia over 2000 bats were killed by one development in a year. Relevant? Yes, because in his article Dr Diesendorf states that by 2040 wind power could supply a massive 20% of Australia's energy! How many modern giant wind turbines would be needed to produce this 20% and where would they be sited? In his calculation of how to achieve a 20% wind power contribution I hope Dr Diesendorf remembers that nowhere in the world does output from turbines ever reach installed capacity. The average output from Germany's largest operator is around 11% of installed capacity. This operator owns over 40% of Germany's wind energy production. It is never 100% and 80% is a rare best (Financial Review 11/04). And what takes up the slack? Conventional thermal power stations on call, inefficiently ticking over to cover base load.

The Australian solution to ramp up efficiency is to develop in high wind energy coastal areas – not exclusively, but overwhelmingly. A press release by the wind energy lobby AUSWEA states that 'To suggest that wind turbines will be installed in a given location simply because it is windy is ludicrous' (Media Release 1/05). What a relief! But wait a minute, why is it that in the forthcoming development in NE Tasmania (Musselroe) of 42 turbines, 11 will be placed in what the lead consultants agreed is a bird sensitive area, and a further 8 within 500m of the coast in the eastern section. The same press release announces that AUSWEA and National Trust are 'working together, so that significant landscapes be identified' and that they are 'together working on a joint Landscape Values Project to develop mutually agreed methodologies for landscape assessment'. Well, that should make Dr Diesendorf's NIMBYS relax and celebrate. A pity though, that this wasn't done before wind farm development got underway. At Musselroe there are two landscape prominences in an otherwise flat landscape. One is a named hill with a trig point. Each has a turbine on it, higher than the hill itself. Both hills overlook a large lagoon where the State's highest ever count of vulnerable Hooded Plovers was made. Perhaps the presence of turbines is a good way of sanitising nearby wetlands of birds so that collision mortalities are not so worrisome.

It may be time for the Greens at a national level to consider how wind farms fit in with the values which the Greens represent. Wind farms are not environmentally neutral. If the Greens are prepared to go through such a long – and worthy – fight to save the forests with all the financial and emotional costs involved, it would be consistent to regard wind farm development with the same scepticism with which they regard the woodchip industry. Both are potent adversaries to the values which I hope we share.

Ralph Cooper

Member Tasmanian Greens
Conservation Officer
Australian Wader Studies Group
(Birds Australia)

Letters to the Editors may be edited for length. They do not necessarily reflect the views of the Australian Greens.

snippets

Slow Food growing

Upset when a McDonald's outlet opened next to the Spanish Steps in Rome twenty years ago, Carlo Petrini launched what is today an international movement with 85 000 members in 130 countries – including Australia. 'Slow Food', is produced respecting the environment and local traditions, promoting and protecting biodiversity and fair and sustainable agriculture. Petrini says the movement, which has a snail as its symbol, is a rebellion against "the virus of fast life, which forces us to eat fast foods."
www.slowfood.com

Bus fares subsidized

The Chinese government will provide a total of 1.3 billion yuan (US$167 million) in 2007 to help Beijing's bus companies reduce fares to only 1 yuan (US$0.13) per ride. Passengers and students using the 'smart card,' an electronic debit card for transportation, will pay even less—only 40 cents (US$0.05) and 20 cents (US$.025), respectively.
www.worldwatch.org/taxonomy/term/53

Ethical banking?

In June 2003, ten banks from seven countries (including Westpac from Australia) announced their adoption of the Equator Principles, a voluntary set of guidelines for managing social and environmental issues related to projects they finance. Following criticism of the guidelines they were revised in late 2006. Even so, financial giants such as Merrill Lynch and Citigroup are under fire from environmental groups and some investors who complain that they still fund power plants and other polluting projects despite adopting the Earth-friendly Equator Principles.
www.equator-principles.com/ and www.banktrack.org

Environmental legacy of the Lebanon conflict

A United Nations Environment Program (UNEP) report has warned that unexploded cluster bombs and factories contaminated with toxic chemicals after last year's conflict between Israel and Hezbollah pose serious environmental risks to Lebanon. The report states that, if the debris is not removed quickly, Lebanon will face major long-term public health hazards, including water supply contamination.
www.unep.org/Documents.Multilingual/Default.asp?DocumentID=498&ArticleID=5499&l=en

Gun deaths decline

The risk of dying by gunshot has halved since Australia destroyed 700,000 privately owned firearms, according to a new study by academics from the School of Public Health at the University of Sydney. The report was published in December 2006 in the international research journal, Injury Prevention.
http://www.usyd.edu.au/news/84.html?newsstoryid=1502

Narmada Valley update

In January, the Sardar Sarovar Dam in India's Gujarat state was completed. The dam is the centerpiece of the multibillion- dollar Narmada Valley development project. The scheme taps the Narmada, India's fifth-largest river, through a series of dams, reservoirs and canals. Construction of the dam began in 1987, but it soon became the focus of one of the world's longest social and environmental campaigns. Authorities say the development will meet the thirst, irrigation and power needs of millions in the vast, parched regions in the west of the country. The Narmada Bachao Andolan, or Save the Narmada movement, says the dam has displaced 320,000 people - many of them poor tribal farmers who have not been properly resettled on fertile land.
www.narmada.org/

Nano silver risks

There are growing concerns about the toxicity risks that nano silver poses to environmental systems and human health. The US Environmental Protection Authority is moving to introduce the world's first nanotechnology-specific regulations. This means regulating products that contain nano silver including Samsung's 'Nano Silver' washing machine, refrigerator, vacuum cleaner and air conditioner. Samsung has already withdrawn the washing machine from sale in Sweden because of community concern. Friends of the Earth in Germany and Australia are also calling for the withdrawal of Samsung's Nano Silver range from sale until peer-reviewed studies can demonstrate its safety. Note: Chain Reaction Issue 97 is entitled: 'Size Does Matter - Nanotechnology: Big Questions about a Small Science'.
http://www.foe.org.au/nc/nc_nanotech.htm

Electric car trial

The West Australian Government has announced a trial of 50 ZEV-lite cars (zero emission vehicles) – the first government in Australia to do so. These electric vehicles have gained 'chic' status in London in recent years. Capable of around 70kmh, and with a range of 100km between charging, they have proved themselves capable and economical urban commuters. One possible hitch for WA– the federal government is yet to issue import certificates. Watch this space!
http://perth.indymedia.org/?action=newswire&parentview=46332

snippets

Biofuel problems

Iinvestment in fuel ethanol distilleries in the USA has increased dramatically since the late-2005 oil price hikes. But the quantity of grain that will be needed has been vastly understated, according to Lester R. Brown, President of the Earth Policy Institute. 'Farmers, feeders, food processors, ethanol investors, and grain-importing countries are basing decisions on incomplete data', he said in an article published in January. He says we 'desperately need a strategy to deal with the emerging food-fuel battle …. [and] need to make sure that in trying to solve one problem - our dependence on imported oil - we do not create a far more serious one: chaos in the world food economy'.
www.earthpolicy.org/Updates/2007/Update63.htm

Neighbourhood Renewal

Neighbourhood renewal programs are bringing together the resources and ideas of residents, governments, businesses and community groups to tackle disadvantage in areas with concentrations of public housing. The Wendouree West Community Renewal, on Ballarat's outskirts, is just one successful example. It's based in the

Wendouree West athletes' village that was built (using imported European kit homes) at the 1956 Olympics rowing venue. A centerpiece of the renewal is a community-operated supermarket.
http://www.wendoureewest.com/

Sustainable farming

A new study indicates that sustainable farming, including organic farming, can help eliminate poverty for farmers living in the world's poorest countries. The research, carried out by international scientists over four years, found an average 79% increase in crop yields for farmers who use sustainable methods. The study, published in 2006 in Environmental Science and Technology (Vol. 40 No.4), examined over 280 projects in 57 developing nations.
http://www.organicconsumers.org/articles/article_4036.cfm.

Buy Nothing Day

On 'Buy Nothing Day' last November, a group known as the 'Space Hijackers' caused chaos in London's Nike Town and HMV by wandering around the stores wearing t-shirts emblazoned 'Everything is half price!' and looking helpful.
The aim of 'Buy Nothing Day' is to get people to think about their consumerist habits and the social and environmental consequences of our globally exploitative, throwaway lifestyles, and to suggest alternative things we can do with our time and money.
www.adbusters.org/bnd

Car sharing

Car sharing now exists in 600 cities on four continents with about 350,000 people using 11,000 vehicles. So says Susan Shaheen, a UC Berkeley research scientist who tracks car sharing projects worldwide. In Australia car sharing is growing with three commercial car share groups currently operating successfully - GoGet and Flexicar (Melbourne and Sydney) and Charterdrive (Sydney). Each of these businesses has received financial support from government to set up.
http://www.urbanecology.org.au/topics/carsharing.html and http://www.travelsmart.gov.au/links/index.html

Climate change update

Friends of the Earth (FOE) Australia released a new report in January that examines recent climate science and warns of catastrophic climate change unless more dramatic steps are taken to reduce emissions. 'Avoiding Catastrophe: Recent Science and New Data on Global Warming', was prepared by the Carbon Equity Project. It surveys climate data released by scientists in the last year. The report paints a starker picture of the threat of climate change than the United Nations Inter-Governmental Panel on Climate Change (IPCC) report. 'Even current proposals for significantly reducing emissions, such as those in the Stern Report, may not be enough to prevent catastrophe,' said David Spratt, author of the report.
www.carbonequity.info & www.foe.org.au

Cronyism in Iraq

Rajiv Chandrasekaran's new book 'Imperial Life in the Emerald City: Inside Iraq's Green Zone' reveals an extraordinary tale of cronyism and incompetence in post-invasion Iraq. The author describes how the intended reconstruction of Iraq fell into the hands of the 'loyal and the willing' instead of the 'best and the brightest'. The US administration awarded key jobs to loyal Republican staffers from Capitol Hill, including an incompetent 24-year-old appointed to establish the Baghdad stock exchange – with disastrous results. Incredibly, job applicants were quizzed on their voting records and their stance on abortion while vital qualities – such as fluency in Arabic or experience in post-conflict situations - were ignored. Chandrasekaran describes the sorry story of how the bungled process eroded any goodwill initially established when the US-led coalition overthrew Saddam Hussein. Google the book's title to locate online reviews and interviews with the author.

This aspirational life

the challenge to make meaning

JOHN HILLCOAT AND BRIAN HOEPPER

Last Christmas, the festive season again delivered a deluge of advertising to Australians. The spirit of Christmas came gift-wrapped with tags inscribed 'bigger', 'faster' and 'more luxurious'. Lovable Saint Nick carried a sack to gladden the heart of all 'aspirationals'.

With Christmas over, the seductive messages about the good life did not disappear. And with the federal election looming, politicians of the major parties will take up the slogans. For aspirational values lie at the heart of the vision they promote.

Because aspirational goals involve the relentless growth of production, acquisition and consumption, they are fairly easy targets for green critique. Aspirational lifestyles leave oversized ecological footprints stamped across the planet. In environmental terms, living aspirationally seems incompatible with living sustainably.

But let's allow ourselves a brief flight of fancy. Let's imagine that aspirational material dreams could be met without compromising environmental sustainability. Could people then live 'the good life' and 'live sustainably'?

Looking behind the glitter

Advertisers equate the consumer lifestyle with cherished notions of happiness, security and fulfillment. And let's be clear – there is no nobility in poverty. Material sufficiency is central to human survival and personal dignity. But the current obsession with material acquisition in societies like Australia's has outstripped valid concerns about survival - or even about living modestly and comfortably. In so doing, it has produced a paradox. Instead of living well, many live with increasing levels of 'dis-ease'.

Along with environmental damage, the most obvious symptoms of dis-ease are increasingly acknowledged. They include widespread stress, depression, and pandemic-scale obesity. Mostly, the symptoms are given band-aid treatments. The deeper causes remain undiagnosed and untreated.

A commodified sense of the world

Aspirational consumption rests on a commodified sense of the world. Increasingly, aspects of human existence that should never be commodified are being reduced to inappropriate material measures.

For example, many people seem to describe and measure their own identity and worth in material terms. Popular advertising both reflects and encourages this - the Seiko ad that proclaims 'It's not your car. It's not your friends. It's not your job. It's your watch that tells most about who you are' is a telling but not unusual example.

Similar material criteria are often applied when people engage with others. A startling study by Barbara Pocock and Jane Clarke (Can't Buy Me Love, Australia Institute 2004) revealed that Australian teenagers live 'within a powerful force field of competitive consumption' and that 'the costs of falling behind are seen to be high – teasing, not fitting in, feeling bad, failing socially' (p.xi). Targetting adults, luxury car-maker Maserati exploited the same 'force field' with its ad cleverly captioned 'Have your life flash before other people's eyes'.

A crisis of meaning making

However, measuring worth and identity through material possessions is a tragically flawed way of making sense of the world, particularly as the urge to make meaning out of life is a central human need. Decades ago, Erich Fromm alerted us to the folly of this in his To Have or To Be. More recently, Cushman and others have described the 'empty self' – the sense of unfulfilment that returns after the 'fleeting sense of satisfaction' produced by so-called 'retail therapy'. For many, the remedy – paradoxically unsatisfying – is to plunge into a further cycle of acquisition. And thus a deep human yearning remains unfulfilled. As Clive Hamilton and Richard Denniss noted in Affluenza, 'people who construct their identity from what they consume basically don't know who they are'.

Social sustainability

If lack of meaning is commonplace in a culture then loneliness, depression, anxiety and destructiveness become widespread – another prescient observation by Fromm. Relationships within communities and societies suffer. Social sustainability is threatened.

Social sustainability is threatened further by the closely related influences of our fast paced lifestyles and the culture of overwork that many people embrace to pay for aspirational ways of life. Again, Pocock and Clarke's study explored some related dimensions of this – parental exhaustion, children's resentment and time-poor relationships. They described guilt-ridden parents compensating their children with material goods. Workplaces can also be sites where unhealthy levels of individualism and competitiveness can prevail - mirroring the 'competitive force field' of consumption mentioned above. In a recent 'Modern Dilemma' column in *The Weekend Australian,* 'humanist' Ruth Ostrow gave the following advice to a worker expressing qualms about sacking junior staff – 'Grow up. … If you want to leave the ranks of drone monkeys and join planet of the apes then you have to learn how to beat your breast, take power, and make tough, unpleasant and often unkind decisions.'

According to British author Oliver James, there are parallel cultural effects, with Sydney the most extreme Australian example. Researching his book (also titled *Affluenza*), he found middle-class, aspirational Sydney the 'most vacuous of cities … packed with career-obsessed workaholics' obsessively pursuing money, possessions and status.

And there are wider consequences. Many imported products that define Australians' 'standard of living' emerge from exploitative and unhealthy workplaces in China, South-East Asia and Latin America. As Rowan Callick described with exquisite timing in the *Weekend Australian Magazine* just before Christmas, there is 'Trouble in Toyland'.

None of the above is particularly new. There were, indeed, biblical injunctions against love of money. And Wordsworth lamented two centuries ago that 'The world is too much with us; late and soon/ Getting and spending, we lay waste our powers'. What is new is the scale of the 'getting and spending' and the intensity of the unsustainability it has spawned in terms of human health and well-being, social relationships, global injustice and environmental damage.

So where to …?

For some – including some Greens - the solution lies in a strawbale cottage on acreage, sustained materially and emotionally by a bountiful garden, satisfying craft production and engagement in a vibrant and civil local community. And these can certainly answer the deep-seated desire for meaning making. But it's certainly not a feasible model for all seven billion people on earth.

What might emerge is a different kind of 'aspirational' thinking

The Greens can, however, promote and work for more attainable goals. Particularly in countries like Australia, there is a need to raise the issue of 'meaning making' in public debate and popular discourse. This does not involve a blanket condemnation of those popular targets of old Leftist critique – individualism, competitiveness and materialism. But it does involve questioning their extreme roles in current aspirational thought and practice. Australians can be gently prompted to reflect on their own lives, to probe the deep wells of dissatisfaction reported in research. What might emerge is a different kind of 'aspirational' thinking – aspiring to meaningful work, material security, convivial relationships and sustainable environmental practices. Along the way it will mean reining in the excesses of commodified lifestyles and individualistic practices. And resuscitating some neglected dimensions of our lives – meaningful recreation, quiet contemplation and a deep sense of spirit. The challenges are personal, cultural and institutional. In the following articles in this edition of Green, a range of authors takes up some of those challenges.

John Hillcoat explored meaning making and ecological practice in his doctoral thesis. He is active in community building at Mt Glorious near Brisbane. Brian Hoepper is co-editor of Green magazine.

Australian teenagers live 'within a powerful force field of competitive consumption'

Sustainable development and the Palm Island Aboriginal community

JOHN TRACEY

Sustainable development in the affluent world is primarily about replacing and upgrading dysfunctional systems with new ecologically appropriate systems.
However, for the global poor, including Aboriginal Australia, sustainability is about developing essential systems such as housing, energy, water, sewage, transport and food production where inadequate or no systems presently exist.

The Australian sustainability movement has focused on sustainable housing, organic local food production and decentralised electricity generation in mainstream Australian communities. The agenda that is intended to tone down the excesses of affluent society is also the solution to the immediate needs of Aboriginal communities. Appropriate secure housing, good nutrition and healthy lifestyle options, are not ends in themselves but they are basic pre-requisites for successful participation in any education, work, health, business, sport, culture and especially in welfare and healing programs aimed at family violence, mental health and addiction.

The Palm Island Aboriginal community is the largest Aboriginal community in Australia. Its history is more brutal and
repressive than most Aboriginal reserves as it was a penal colony where 'trouble makers' from the other reserves were taken. It was also where many children of the stolen generation were taken to grow up without their families in the Palm Island dormitory. During the mission times residents of Palm Island were forced to work for under award wages, much of which was withheld by the government. The island has abundant natural resources including fertile soil and was largely self sufficient in food and even exported some produce to Townsville during the oppressive mission times.

Housing and town planning on Palm Island developed in an ad hoc manner to accommodate the needs of the mission (including surveillance of the community) as well as to minimise infrastructure development such as water, electricity, sewerage, and roads. Houses were built very close to each other in grids similar to inner urban workers' cottages.

There is a severe housing crisis on Palm Island with a population of over three thousand living in approximately 300 houses, some with up to 27 people living in them. Most of the houses are designed for nuclear families and are over crowded. With the exception of some vegetables grown through a work for the dole project, all the food on Palm Island is imported from the mainland with inflated prices to cover transport costs. Most people on Palm Island are receiving Centrelink benefits and cannot afford much good fresh food. Others struggle with addiction and their family's diet suffers to fuel the addiction. No domestic violence programs, health, education, employment

or any other kind of programs will work on Palm Island if the program's participants cannot enjoy a secure home and proper nutrition. Yet this is the present circumstance of most Palm Islanders.

Sustainable housing is very relevant to the Palm Island housing shortage as present kit or home built housing options can be built on Palm Island, (or any remote community) for considerably less than what the state government is currently paying for conventional public housing on Palm Island. (All present housing stock on Palm Island is public housing.) Decentralised water collection, sewage disposal and electricity generation allow for cheaper housing developments as there is no need to extend mains water sewer and power systems, reducing overheads considerably.

But the essential benefit of sustainable housing and infrastructure in Aboriginal communities is it allows for positive and productive connections between human society (including housing developments) and the surrounding environment and ecosystems. For a start, the reduction of toxicity in sustainable housing will protect the environment but more importantly it allows humans to directly interact with the ecosystems – to live in the environment rather than to protect and visit it.

Palm Island has been sensationally described in the media as a 'dysfunctional' community and even as 'the most violent place in the world outside of a war zone'. Palm Island certainly has its problems but these are mostly the result of completely inadequate service delivery by the state government and a history of colonial oppression. The community also has much leadership potential, dynamic social networks, a reviving cultural awareness and, being in a beautiful part of the world close to urban centres, has the potential for economic development. The blending of indigenous culture with green concepts of sustainable architecture, technology and planning could make Palm Island a model community. There is an awareness of these issues among people in the community and a strong desire to see it happen.

John Tracey is the editor of "Paradigm OZ" a blogazine about Australian culture and politics (paradigmoz.wordpress.com). He is a writer, researcher and music manager and presently co-ordinator of "Gunya 21 Link Tank" working with members of the Palm Island community to improve housing options.

'That there should be a massive housing problem in an affluent society is surely an immense and intolerable paradox.'

E.F. Schumacher

Palm Islanders dancing on Survival Day 2007

adapting to climate change

Think about sustainability in the city and often what comes to mind are eco-chic homes with state-of-the-art solar panels and recycled timber. It's the sort of picture that we're more and more likely to see in the pages of *Home Beautiful* or *Better Homes and Gardens.*

What we're less likely to see is discussions about drains, but this is as crucial an issue as energy use or where you source your materials. It might not be as glamorous as designer green homes, but, importantly, it's something individuals and their local governments can have a lot of control over.

It's one of the areas where we see climate change at play. Melbourne is already experiencing an increase in the intensity of rainstorms. Rain is falling in short but extremely heavy bursts. The combination of climate change and loss of permeable gardens is causing flooding where it did not previously occur and is increasing the frequency and severity in areas where it did.

While this is a problem of climate change, part of the problem is also affluenza. Back in the 1950s houses were smaller and paved areas fewer than today. That meant more rain soaked into the ground than it does today.

There are lots of reasons, including the health of people and the environment, why stormwater is something people need to think about. Stormwater picks up untreated effluent from illegal connections and from the emergency overflows out of the formal sewerage network, making our rivers – that in the past were oases on hot days – unswimmable. Stormwater flows out of the rivers into the bay, dumping toxins and sediment into the sea. As well, many of metropolitan Melbourne's creeks have been severely damaged by the erosive effects of unnatural volume and speed of waterflows.

Places like Queensland have always had to deal with the torrential rain that Melbourne, courtesy of climate change, is now learning to live with. In tropical regions, the sheer volume of water makes it impossible to send water underground via pipes and drains. Instead, it is permitted to go where it would naturally go, via 'overland flows'. What this means is creeks and ephemeral creeks (creeks that do not always run) have been allowed to remain as water courses and housing has to stay a certain distance back.

In Melbourne creeks have traditionally been covered over, concreted up and turned into drains. We've looked to engineering to address stormwater. But now, as the volume of water hammering down during summer storms is increasing, our old systems just aren't working. It's time to think about planning for sustainability, rather than building it.

The solution is having a catchment management plan that is specifically intended to mitigate the impacts of climate change. This would mean a mixture of public and private actions. Local government would need to use its planning powers and potentially its capacity to make local laws to address those issues. One of the difficulties is that much of this means regulating what happens on private land and also requires, at least in Victoria, the state to not over-ride local decisions. (In Victoria the state government can – and does – over-ride local planning decisions, including those that ensure better results for the environment). Another difficulty is that it will require significant investment.

At an individual level, there are two very concrete actions people can take - installing a rain water tank and increasing the permeability of their land.

At times of drought, water tanks tend to be discussed as a way of collecting water for consumption, but they also have another important function. They delay the release of water into the storm water system. By acting as a kind of small-scale dam they release water gradually over time, rather than in the big dump it comes down as. Swales – shallow ditches that hold water temporarily – do the same thing.

at the local level

ANDREA SHARAM AND KATHLEEN MALTZAHN

Increasing permeability is essentially about increasing the opportunity for water to soak into the ground rather than running off. You can do this through getting rid of the concrete and building up rather than out (so land is not covered by buildings).

Planning for adapting storm water systems for climate change means neighbours are going to have to address the impacts that they make on their downstream neighbours. The problem is, people at the top of catchments don't directly experience the negative impacts of what they do, so they don't have

> The solution is having a catchment management plan that is specifically intended to mitigate the impacts of climate change.

the same incentive to change their behaviour as the people downstream who are being flooded: which is where government comes in.

There are two obvious mechanisms that councils have available. One is to encourage – or require – individuals to increase permeability and install water tanks. Manningham Council, for example, last year looked at how it could use local laws to make tanks mandatory, and Yarra council is currently exploring this. The Manningham law (which was not adopted) recommended a staged process that initially required tanks in new homes, later in renovations or alterations over a specific amount, and finally in all buildings.

The second mechanism is for councils to introduce a local special charge scheme that can pay for the most efficacious measures in the right places (for example along an old creek bed). This would turn it into a collective responsibility.

There are two other areas (at least) councils can play a role in.

One is, like individuals, to increase the permeability of cities and to better process storm water. Yarra Council, for example, is currently looking at creating a wetland in Edinburgh Gardens, one of the city's heritage parks. As well as providing irrigation to the gardens, this will stop run-off and treat stormwater before it runs into the river.

The second area is in purchasing land. Some land can never be protected from flooding. People here are stuck – they can't sell out because property values have been pushed down by the fact that they can be flooded, and because houses that can or have been damaged by flood become uninsurable. One option is for councils to buy this land. To market-oriented governments, the idea of bailing out people is anathema, but with climate change, lack of attention to transitioning is a recipe for economic (and environmental) disaster. Acting early will be important.

Local communities are already responding. In Moreland, residents in some local streets subject to flooding are getting together with council and the water authority to explore the mixture of public and personal actions that can be taken to act locally to adapt to climate change.

These communities are our pioneers. They are in the frontline of the negative impacts of climate change and they are set to become the strongest advocates for recognising the inconvenient truths about climate change.

Andrea Sharam and Kathleen Maltzahn are Greens councillors at Moreland and Yarra Councils (respectively) in Melbourne's inner Northern suburbs.

Why Buy?

The case for energy services

LORI PUSTER

Einstein gave us an equation describing how matter equals energy. Of course, we normally use this equation to calculate the potential energy which can be unleashed from matter. But it is equally true in the opposite direction: matter = 'leashed' energy, and when formed by human hands, usually a whopping great amount of it. And so, to significantly reduce our individual and collective consumption of energy, we have to reduce our individual and collective consumption of 'matter.'

The case of the car

The most energy efficient automobile still represents huge amounts of energy expended in its manufacturing process. Every material thing contains embedded energy. In plants the process is fairly simple - their energy comes primarily from the sun and they convert it into themselves. In the case of a car, the energy comes primarily from fossil fuel, which runs the machinery that digs the ore, smelts the metals, casts and stamps, and machines, and assembles, and transports every bit of it every step of the way to its final destination. Not to mention all of the plastic parts processed from petroleum and similarly worked and transported. All that before you even put a litre of petrol in the tank!

No matter how efficient we make cars, the greatest reduction in energy use will come from making fewer of them in the first place.

For far too long, a combination of cheap energy (and cheap foreign labour) has enabled people in the western world to purchase goods more cheaply than services. Why hire someone to do odd-jobs around the house when the tools to do-it-yourself will cost less, and you get to keep the cool tools? Why go to the grocer everyday when the fridge will keep food in your kitchen? Why go to the laundromat when there's your very own clothes washer in the laundry room? Houses themselves expanded to make room for all of our stuff. An economy dependent on continual expansion and mired in a production model also manufactured the need for each and every one of us to own one (or more) of nearly everything - a car (or two, or three) and a whole host of appliances and tools in every household. Ever increasing consumption was an economic winner, at least for some, and expressly encouraged by government policies. Of course, within businesses, such duplication is unnecessary and wasteful and continually weeded out.

As a result of our personal goods, especially our personal transportation, we've become spread further apart and more rampantly independent than ever before. Energy efficient new housing developments and redevelopments can draw people back inwards and cluster them around the kind of local services that eliminate most car travel, and the need for individual clothes washers and refrigerators and similar appliances. But what about now, and what about the rest of us in the 'burbs and beyond'?

Energy services

Product-service systems, also referred to as energy services, focus on the needs and desires that material goods facilitate. You don't really want a car (and who would given purchase price, and the cost of insurance and maintenance?), you want to get from one place to another. You don't want a clothes washer, you want clean clothes.

Nor do you really want a fridge. You want your food not to spoil - and your ice cream frozen or your beer cold. To accomplish this currently, approximately 8 million Australian households own roughly 8 million refrigerators. Even using the specifications from my 350 litre fridge - which is smaller and newer than average - that adds up to 600,000 tonnes of material – consisting of 300,000 tonnes of iron and iron alloys, 240,000 tonnes of plastic, 12,000 tonnes of copper and 6,000 of aluminum, etc. plus 'shipping and handling'.

Car share programmes already exist in some cities. Apartment complexes have shared laundry facilities. Urbanites living in bed-sits buy food daily from a local store or restaurant. These are existing models for meeting needs and desires without undue duplication. In less populous areas, the logistics are harder to work out, and still less financially viable, but not for long. The cost of manufacturing will continue to climb with the cost of fossil fuel. This alone will determine a reduction in the number of products people buy. But, in order to reduce greenhouse gases, we have to get ahead of the economic curve. Or better yet, get our governments to eliminate the subsidies that make items cost far less than their real value, which in a sane world would have to include the cost of environmental damage and remediation, and the proper disposal and recycling of materials. If we had to pay the true price of what we buy, sharing the cost of items would become a lot more attractive.

The power drill

Let's turn to less weighty and more immediately shareable items. The power drill is a good example. .The average household power drill gets used only a few minutes a year and less than twenty minutes in its lifetime. You don't really need a drill, you need a hole made or a screw driven in. If your neighbor had a drill you could borrow - and if power drills were not so ridiculously cheap, and if it wasn't embarrassing to not own your own in our conspicuous consumption culture (especially for guys) - you'd be happy to use his, or hers. Tool libraries are an obvious answer.

For less money than we collectively spend on a hundred drills,
a hundred households can purchase a whole workshop worth of tools.

Yes, the logistics of housing, maintenance, etc. have to be worked out, but who wouldn't rather have ready access to just the right tool (or even a completely outfitted work-shop) than to have to make do with the one you've got, or purchase another for equally limited use? Sure sharing has its problems, like the guy who keeps busting things, but one way of dealing with irresponsible individuals is by rewarding good behavior. The person who returns tools clean and in good nick gets reduced rates etc. Doing right by the whole group earns prestige points that translate into actual monetary savings.

Embedded energy is also a good guide at the other end of the scale. One item not worth sharing is a nuclear power plant - despite the potential of the atom that Einstein discovered. If you add up the amount of fossil fuels embedded in all of the mining, manufacturing and transporting of materials in the ten plus years it takes to build a nuclear reactor and containment facilities (fuels that that will be increasingly hard and more costly to come by) and then add in the cost of mining and disposing of the uranium, and the eventual decommissioning of the reactor, nuclear returns hardly any more energy than it takes in. But more importantly, once we've picked the 'low hanging fruit' of limited high-grade ores, other methods of uranium extraction, such as sea water extraction, would create a negative energy balance - on a scale of three to one.

It's easy to feel trapped by the systems, infrastructure and paradigms that resulted from the 'age of oil', but we're not. And we won't win over many people if we seem to be pitting the negative-sounding 'less' against the positive-sounding 'more'. That's why we need to shift the focus from having less things to gaining more access. It's certainly more appealing … and it's even true. Energy services can provide more people with more access to what we need and want than most of us can afford through individual ownership. 'You are what you access, not what you own' – now that's the kind of sexy that sells.

Lori Puster is the self-confessed tool junkie in her family, and is glad to lend them out.

THE DAY THE Franklin Was Saved

THE DAY THE Franklin Was Saved

GREG BUCKMAN

I've never lived a day since quite like the first of July 1983 - the day the Franklin River was saved.

On that day the High Court handed down its decision on the validity of federal legislation that might save the river. The night before snow had fallen on Mount Wellington behind Hobart; its gentleness and innocence contrasted with the extreme angst felt by everyone in the campaign. It seemed fairly certain the constitution gave the federal government the power to over-rule the Tasmanian government on the issue – the use of similar powers had been upheld in the High Court's earlier Koowarta decision on Aboriginal affairs. But no-one knew how the court would fall on the Franklin case. One of the judges, William Deane, hadn't been involved in the Koowarta decision and was a wildcard. The angst was heightened by quiet indications from the Hawke government that they would walk away from the issue if the High Court decided against us. We were on the edge of an enormous precipice. Bob Brown summed up the feeling of many when he said he'd either be back in jail or on top of the world after the decision.

Nervously we crowded around the radio at the Hobart headquarters of the Tasmanian Wilderness Society (TWS) waiting for the mid-morning news. On came Queensland premier Joh Bjelke-Petersen, who had backed Tasmania's right to flood the Franklin. He said 'It is a black day for Australia' and we knew we had clinched it. The Franklin could flow free. The High Court backed us 4 to 3. Deane had swung it (and went on to become one of Australia's best governor-generals). The TWS building became a scrum of hugs, kisses, spilt drinks, camera crews, scattered food and jammed telephone lines. Bob phoned in from Brisbane (where the decision was handed down) to be greeted with non-stop love. The carpet was soon soaked and the building filled with a thick atmosphere of intense joy and release. It was unreal. We didn't know what had happened. I still don't fully understand it.

The campaign to save the Franklin stretched back to October 1979 when the Hydro-Electric Commission had tabled its proposal for the river. Between October 1979 and July 1983 there had been rallies, door knock campaigns, by-election campaigns, countless meetings, no end of money worries, heaps of lobbying and, of course, the blockade. Early on it had been expected the blockade of dam construction work might attract a few hundred. But in the end nearly 3000 took part. Every morning the blockaders in the 'up river camp' (it became a regular bush-town amongst the forests of the Gordon River) donned swimmers and wet suits after breakfast and waited for the radio message that more dam-building equipment was coming up. The blockaders formed a chain in their rubber rafts to thwart the barges. Police tried to break them up. As the barges got near everyone tensed up and blockaders would shout and squeal. When the barges broke through there was an incredible din amidst a fast-moving melee. In the end the blockade only slowed the dam work a bit. But it was made for media and was pivotal in making all Australians aware of the Franklin's plight.

The thing I most learnt from the Franklin campaign is that you don't need to know where a campaign is heading to know it's worth fighting. In 1982 the ardently pro-dam Robin Gray had been elected premier of Tasmania and the federal Labor Party under Bill Hayden didn't look like they were up to knocking Prime Minister Malcolm Fraser off. But there we were just a year later celebrating this sweetest of victories. I often feel today's fight to save the world from global warming might go the same way (and might have started to already).

Meanwhile, the snow kept falling on Mt Wellington, oblivious to the madness of the humans living below it.

Greg Buckman was assistant national finance manager of the Tasmanian Wilderness Society in the later stages of the Franklin campaign. He was variously treasurer and deputy treasurer of the Australian Greens between 1999 and 2006 and was one of the founding editors of *Green* magazine.

CARBON OFFSETS ARE

SHARON BEDER

The idea of carbon offsets is to provide funds for projects that reduce greenhouse gases and impose a cost on those generating them but it is doubtful that they contribute to long-term sustainability.

The Joint Implementation (JI) of the Kyoto Protocol allows countries to offset their excess emissions by paying for emissions reductions or carbon sinks in other countries which have agreed to the Protocol. The Clean Development Mechanism (CDM) allows countries to offset their excess emissions by paying for emissions reductions or carbon sinks in developing nations. They can be created by projects that absorb carbon dioxide or reduce greenhouse gas emissions. These include tree plantations, renewable energy generation projects, landfill gas extraction and the closing down of old, dirty plants. The emissions reductions are supposed to be additional to what would otherwise have occurred.

Carbon offsets are not confined to nations that have signed up to the Kyoto Protocol. They can be used with any emissions trading scheme. Businesses can also invest in projects to offset their emissions and businesses in nations like Australia that have not signed can still sell carbon offsets to nations or corporations that need them to meet Kyoto obligations. There are also schemes where individuals can pay for offsets in an effort to make some of their activities 'carbon neutral'.

In 2004 107 million metric tonnes of carbon offsets were being traded, up 38 per cent on the year before. Sixty percent of these were bought by European buyers and just over 20 percent by Japanese buyers. Almost 70 percent were bought by private buyers as opposed to governments. They sell for between $3 and $7 per tonne of CO2 equivalent, much less than the price in emissions trading systems. The emissions reductions were mainly generated in China, India, Brazil and Chile.

However there are many questions about how effectively carbon offset schemes reduce greenhouse gases in the long-term. It is up to those claiming carbon credits to explain how they are reducing greenhouse gas emissions and why these reductions would not have occurred without their investment. This means the carbon offsets can be rather debatable and often would have occurred anyway. An example is the Esti Dam in Panama which was more than half complete when the Dutch government applied for 3.5 Mt of CDM credits for it.

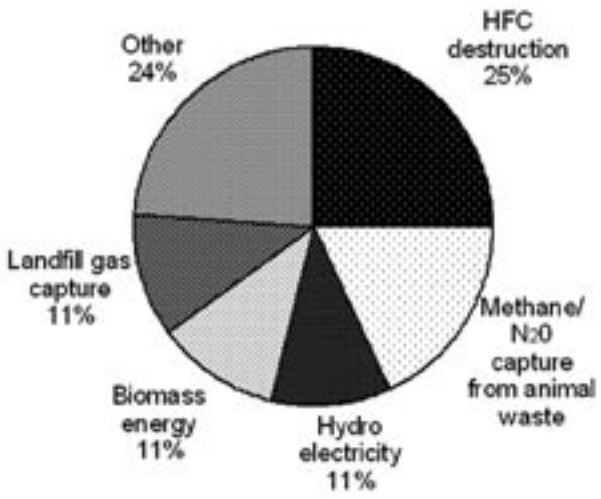
A company can argue that a gas-fired power plant it is investing in is reducing carbon emissions because otherwise a coal-fired power plant would have been built. There is no onus on the company to prove the coal plant would have been built nor that the gas-fired plant would not have been built without the carbon credits. Nor does it matter that a wind farm would have reduced CO2 emissions far more. Using the credits gained with 'imagined' reductions, the company can increase its emissions back home. However the benefit to the environment is doubtful.

The CDM mechanism also provides a disincentive for governments in poor countries to introduce environmental policies and projects in case CDM projects might no longer be seen as additional to what would normally have happened. This means that government policies that would have reduced global greenhouse gas emissions are substituted for by project financing that avoids corresponding emission reductions in affluent nations so there is no global benefit.

The CDM also provides an incentive for industrial facilities to be designed without pollution controls so that they present an attractive emission reduction opportunity. For example, future land fill dumps may be designed without methane capture in the hope that foreign investors looking for credits will be attracted to pay for it. There are even cases where credits have been claimed for complying with environmental laws in the host nation on the basis that the laws would not otherwise have been enforced.

CDM projects favour cheap methods of reducing carbon emissions rather than renewable energy projects in developing countries. One of the easiest ways to earn carbon reduction credits is to pump methane out of a waste dump. This is because renewable energy is more expensive for investors, even though it offers more benefits to the local community and the nation. This has caused the CDM to be referred to as the 'Cheap Development Mechanism'. Most emission reductions are earned by reducing greenhouse gases other than CO2 (see figure below).

Source of Emission Reduction Credits, 2004-5



HFC is a refrigerant and a greenhouse gas
Source: 'State and Trends of the Carbon Market 2005', International Emissions Trading Association, Washington DC, May 2005, http://carbonfinance.org/docs/CarbonMarketStudy2005.pdf, p. 3.

NOT SUSTAINABLE

Various technologies of contested environmental benefit are being promoted as offering carbon offsets. For example, the CDM provides an incentive for the construction of nuclear power plants in developing nations, particularly China, despite the known hazards associated with operating nuclear plants and storing nuclear waste. It is estimated that carbon credits could reduce the construction costs of such plants by 10-40%.

The use of tree plantations as carbon offsets is also problematic. Firstly there is no accepted method for calculating how much carbon is temporarily taken up by growing trees. Such trees may release their carbon early as a result of fires, disease or illegal logging but the necessary long-term monitoring is often not carried out.

In many situations plantations are not sustainable. They can create 'green deserts' because they are so water intensive. Generally plantations are made up of single species, such as eucalyptus or pine, that grow quickly, have high fibre yield and can be easily logged. They suck up all the water in an area leaving wells dry, and the land around desiccated and unable to support crops. The trees are planted in rows of trees of the same age and species that require heavy use of agri-chemicals, including fertilisers, chemical weeding, and herbicides that pollute remaining waterways. Such plantations reduce soil fertility, increase erosion and compaction of the soil, and increase the risk of fire. In addition they may lead to a loss of biodiversity because in many nations they are monocultures of non-native species and because their densely packed uniform rows do not provide the variations of form and structure found in a forest.

Of most concern, however is the fact that carbon offsets enable very polluting or dirty industries to continue to emit carbon in return for dubious and often temporary gains elsewhere that may have occurred anyway. Instead of making effective changes to their own production processes these industries can take advantage of the cheap and often unsustainable reductions and sinks that are available in poor nations. For individuals it is a way to pay to take the guilt out of excessive and mindless consumerism. A sustainable lifestyle is not so easily attained.

For a more detailed discussion that considers the equity and other dimensions of carbon offsets see Sharon Beder, *Environmental Principles and Policies*, UNSW Press, 2006. Sharon is a qualified professional engineer and worked in this field until a career shift into researching and teaching environmental politics. She has held a number of appointments at Australian universities over the past two decades -- most recently as professor in the School of Social Sciences, Media and Communication at the University of Wollongong.

Green alternatives to Pulp Fiction

Pulp and paper industries have cut a destructive and polluting swathe through many pristine areas of the planet over many years. Papyrus Paper originated in ancient Egypt as a craft process in which paper was hand made from the papyrus reeds of the Nile Valley. Australia also has vast areas of related reeds within Kakadu National Park. When the paper making process was industrialized in Europe and North America trees were substituted for the papyrus reeds and the manual craft process was scaled up by pulping woodchips with chemical and physical processes that required large quantities of water and energy and produced large volumes of toxic effluent.

DAVID WYATT

In the early days of industrial paper making forests and fresh water were regarded as limitless resources. As the demand for paper and packaging products increased old growth forests were consumed at an alarming pace. Recycling (or more accurately downcycling) and plantation forests have made some impact but the demand continues to grow. Tragically, unique old growth rainforests are still being destroyed in Australia and elsewhere to produce woodchips that are pulped to produce often low value paper products. Pulp mills, with all the associated environmental problems, are being forced to close in developed countries such as Canada and are being moved to countries with lower environmental standards.

The ongoing conflict in Tasmania combines needless destruction of old growth forests and attempts to add some economic value to wood chipping by building a pulp mill. There are also current proposals to build pulp mills in Victoria and South Australia. All of these are seeking access to large volumes of fresh water, large amounts of cheap energy, licences to discharge large volumes of effluent and large direct or indirect Government subsidies.

Meanwhile, a quiet revolution has been brewing in Adelaide. It has the potential to make the current paper and pulp industries as extinct as the dinosaurs.

After more than eight years of R&D, Adelaide company Papyrus Australia has developed a revolutionary new engineering process that can produce paper from waste banana trunks without pulping. Banana trees (actually giant herbs) grow rapidly in less than a year to produce fruit. Once the bunch is harvested the trunk is cut down to rot and the whole process is repeated each year with billions and billions of banana trees around the world.

The patented Papyrus process is a near perfect environmental/industrial closed loop which uses a rapidly renewable waste fibre resource, no added water, less than 1% of the energy of the current pulp and paper industry and no chemicals.

Waste banana sap can be returned to the plantation for irrigation and hence there is no toxic effluent discharge. The scale of the process is small, mobile and decentralized and suitable for location in villages along side existing banana packing sheds. It also promises to give a significant boost to local village economies. The capital and operating costs result in a cost base only a fraction of the existing industries. It is currently estimated that each small factory could produce about $20M of raw product per year. Using existing plantations these could eventually supply a significant proportion of the global paper and packaging needs.

Banana ply can be used to make a huge variety of ecofriendly products for the paper, packaging and building industries. It also has a unique natural appearance or can be coated with other materials like normal paper and packaging.

The natural fibre, which is intact after the non pulping process, is exceptionally long and has high tensile strength. It can also be recycled through many more cycles than pulped paper. These are fundamental measures of paper quality and value. By leaving the natural lignin intact, the material has a variety of useful properties including water repellent wet strength. It is also flame retardant and UV resistant which gives it similar stability to the ancient Papyrus documents such as the Egyptian *Book of the Dead* and the *Dead Sea Scrolls*.

Papyrus Australia Limited listed as a public company on the ASX in 2005 (Code: PPY) when it raised capital to build its first commercial production facility. This project is on track and the company expects to commission this production line in April 2007. There is already significant interest from the paper industry and banana interests globally.

The race will then commence in earnest between the sustainable Papyrus Banana ply technology and the dinosaurs of the existing pulp/paper industries. For the sake of the planet let us hope that this race is swift and that this Australian Green Technology makes history as the biggest breakthrough in sustainable papermaking since its Papyrus namesake.

Dr. David Wyatt is Chairman of Papyrus Australia Ltd and the first Chairman of an ASX-listed company to stand as an endorsed candidate for the Greens (in the 2006 Queensland State election). He is also Adjunct Professor in Corporate Sustainability at the University of Queensland Business School. www.papyrusaustralia.com.au"

Grass roots communities

as the heart of green citizenship

PETER COCK

As citizens we are finally waking to the perils of our damage to the earth. However, our new consciousness is dragged down into inaction by isolation, cynicism and depression. This can occur when an individual is given responsibility disproportionate to his or her capacity to act constructively. It is too much to expect each individual to hold in isolation the energy to act radically and sustainably for the earth. We need the support of others to challenge the gaps between awareness and action. We have been socialised to live essentially private lives within impersonal worlds. We are largely devoid of the experience of intimate sharing beyond family whether of feelings, friends, flesh or possessions.

Acting sustainably is dependent upon being part of a culture that sets the frame within which environmental decisions flow: a culture where environmental norms are embedded within our psyches and which set the range of options to explore.

Retribalisation

As a society we have over-reacted to the oppressive individualism of the tribes and villages of our history. In times of radical challenge to our ways of living, community development is one of the core political and cultural pathways forward. Green technology is laudable but insufficient, needing the structures of grass root communities to maximize its efficiencies - for example, five people sharing machinery, vehicles and appliances rather than owning individually.

One of the core pathways for sustainability is regeneration of cities as clusters of villages. The word 'community' has been over-used, largely losing its meaning. Its regeneration is an essential strategy for human empowerment to tackle societies' restructuring. Community can be the context for challenging ingrained patterns resistant to transformation after 200 years of the god of economic growth. We need community; it's our heritage of being human, vital to help radically reduce our footprint and to heal the human spirit. Virtual connections can only substitute so much and deepening relations with just one other is also insufficient.

There have been numerous waves of experiments with intentional communities at times of crisis. I joined this search in the 1970s with many others. What I have so far learned from 35 years' experience of intentional community living is that collective strength comes from clarity of shared purpose. This can be sustained through organisational structures backed up by social pressure for individuals to participate and carry out their agreed tasks, with clear lines of responsibility and areas of authority. People may choose to join or to leave, but there need to be real community boundaries that limit the scope of diversity in order to ensure community cohesion.

However, while core values need to be shared, the community structures need to allow for diversity. Diversity within an agreed framework is illustrated at Moora Moora by decision-making processes at meetings, by allowing for a diversity of ways of farming the land within a broadly agreed framework, and by respecting people's decisions to be vegetarian or meat-eating.

Cultural symbols and rituals

Retribalisation involves complex interdependencies, not just 'the simple life' and 'self-sufficiency'. Community identity needs to be established and sustained through cultural symbols and rituals, often sacred. It takes a long time to rediscover and to evolve the shared realms of the sacred that nourish the community and sustain it during crisis. And – while rejecting corporate bureaucracy - communities must put in place clear structures and functions as a necessary first step towards the development of cultural features.

At its heart community means shared bonding with a particular group of people in a particular place. Retribalisation from our present cultural base will involve struggle, pain, letting go and reaching out. In our culture we don't know what 21st century tribalisation means and we therefore have so much to learn from other cultures that have a long experience of tribal village living.

Much can also be learned from the longevity of religious communities. Whether their extremes of collective accountability and communal organisation are necessary for other communities is another matter. A transcendental community commitment of a spiritual, environmental and/or political nature is necessary for sustainability. At the very least communities

Rooftop garden and solar collectors at Christie Walk Eco-village, Adelaide. **www.urbanecology.org.au/christiewalk**

need to be accountable to a larger body politic. For example, Moora Moora's accountability to local government for its environmental performance is an external reference point attesting that it is not an isolated self-contained community.

The place of conflict

Even with careful planning it is inevitable that the establishment phase of any social group, especially an innovative group, is characterised by a period of uncertainty and psycho/social trauma, with membership turnover and community failure.

Getting established is hard enough. When communities fall apart or explode, this is often attributed to interpersonal conflict. It is vital to develop appropriate community mechanisms to distinguish symptom from cause, person from issue. A community needs to believe in the social necessity of conflict while recognising that it has to be used creatively to generate new possibilities. What is needed is the shared will and knowledge to make decisions about when and how to facilitate the creative use of the energy of conflict.

If the community is so organised that it lacks room for change or the stimulus of uncertainty then boredom is the inevitable result. For example, Moora Moora Cooperative survives in part because it cannot be managed by an individual, is unpredictable and at times disorganized. Its elements of chaos are a threat to the organizing mind and yet they may at least sometimes be part of our sustainability.

The private and the shared

However, 'the tragedy of the commons' is a more real threat. Such balances are dynamic but in our culture are skewed towards the individual. The tendency is to privatize over time what is shared in common, reducing it to the lowest common denominator. For example, over the recent history of intentional communities, a lack of strength of purpose and organizational capacity has resulted in common land becoming private, or not being cared for, for agreements not to be honoured.

There is a need for a number of dynamic balances between the community's inner and outer life, consensus and dissent, self-sufficiency and community interdependence, personal desires and community interests.

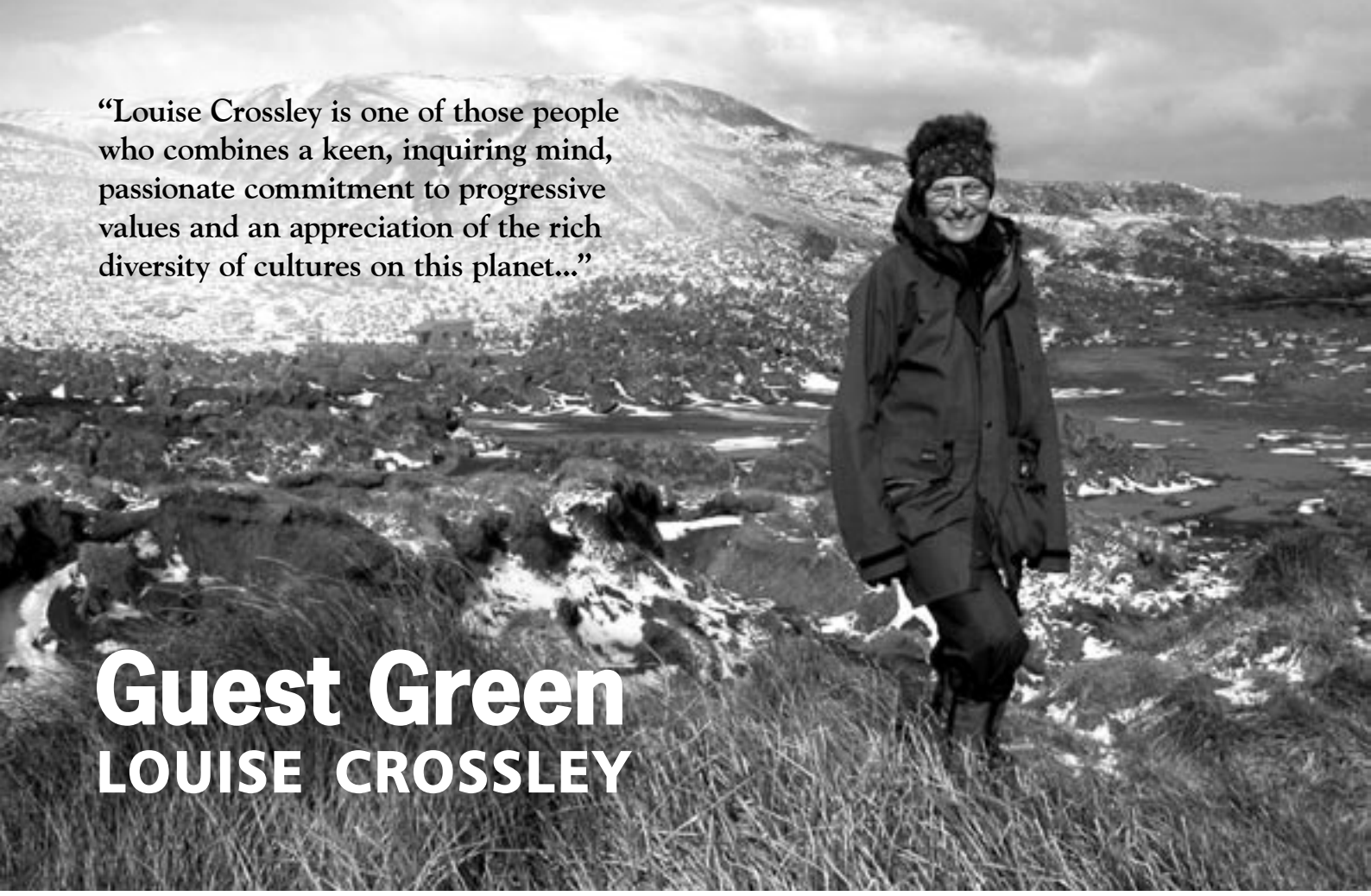
Participation in a community requires some sacrifice of individual autonomy to achieve the benefits of connectedness. This involves bonds, obligations and mutual interdependence, which are fundamentally incompatible with individualism. Australian society has opted for the 'freedom' of individualism and, as a result, has denied itself community. Finding a dynamic balance between personal autonomy and community commitment is essential to an understanding of the present struggle within intentional communities and also within our culture.

The future

The explosion of experiments in intentional communities in the 1970s throughout the western world is now finding new expression in the 21st century. It is as much driven by necessity as by utopian dreaming. Intentional communities, as well as inherited familial village or tribal bonds, can foster relations that resist the extremes of individualism, the monopoly power of corporations and institutionalised professionals. Such communities in all their diversity can be places of participatory democracy that breeds powerful individuals educated in the practice of deep green citizenship.

In the 1970s, some saw green technology and organic food cooperatives as leading the way, but most dismissed them as marginal. Today they are increasingly mainstream. But cultural change remains the challenge. Being in community provides the context where this is more likely, through, for example, providing a non-material focus for meaning. Further, at Moora Moora Cooperative Community we are engaged in intergenerational change because we have developed polices to encourage young people to join before the generational gap becomes too great. Hopefully they bring energy and ideas to meet the challenge of cultural change.

Peter H Cock (PhD) conducted the first national study of intentional communities in the 1970s and co-created Moora Moora Cooperative community in the 1970s where he lives. He was a lecturer at Monash University for more than three decades where he taught units such as Conserver Society, Environmental Policy and Action and Wilderness Studies in Social and Sacred Ecology. He is on the council of the Sustainable Living Foundation and has just joined the staff of the OASIS Graduate School in Community Learning and Research at Borderlands in Melbourne.



"Louise Crossley is one of those people who combines a keen, inquiring mind, passionate commitment to progressive values and an appreciation of the rich diversity of cultures on this planet..."

Guest Green
LOUISE CROSSLEY

Louise Crossley is best known for her role as Australian Greens convenor in the late nineties and for developing some of our most cutting edge policies. She also went very close to winning a Senate seat for Tasmania in 1998. But even without her Green Party history Louise would still be a fascinating 'Guest Green'.

She was born in South Africa, after her mother fled Malaya when the Japanese invaded in 1941. leaving her father a prisoner of war in Singapore for four years. Her family was re-united in England in1945 but her father and mother went back to Malaya leaving Louise, aged four, and her elder sister in boarding school. Her parents finally returned to England in 1956 and Louise went on to Cambridge where she studied science. She then went to the USA with her husband Clive where her academic interests widened to her life-long interest in the history and philosophy of science. She continued her wide, generalist intellectual pursuits after she came to Australia in 1965 working with such intellectual giants as Charles Birch and being a pioneer in the area of women's studies at the University of Wollongong.

However, Louise was not altogether at home in academic life and she and Clive spent some time sailing around the Pacific becoming involved in various appropriate technology projects in places like the Solomons and PNG. This was the start of her interest in environmental and development issues and, when she returned to Australia in the early eighties, she began work on the ABC's Science Show. One of her biggest projects was to research programs on 'salt', including a very early study of the effects of salination on the Murray Darling Basin.

Some time later she began work with the Commission for the Future. This was a great project begun by the Hawke government's Science Minister, Barry Jones (about whom it was said 'Without Barry the Commission wouldn't have existed; with him it wouldn't work').

After a period in the mid-80s spent backpacking around Asia Louise went to Tasmania in 1988 to set up the International Antarctic Centre. When the project was shut down after a change of government, she decided to go to the Antarctic and was appointed station leader at Mawson in 1991, doing exciting field work at a time when researchers were still using dog teams. This experience consolidated Louise's commitment to the environment and so, when she returned to Tasmania, she joined the Tasmanian Greens, becoming its first convener. She stood for the federal seat of Franklin in 1993 and was lead Senate candidate in 1998. Returning to Antarctica in 2000 she participated in the Macquarie Island cat eradication scheme that allowed the blue petrels to breed on the island for the first time in 100 years. She wrote the history of Macquarie Island and promoted the idea of 'restorative ecology.' However, on a 2003 visit to the island she was appalled to see that, with global warming, rabbits were having more litters a year, the population was exploding and causing ecological devastation.

Louise Crossley is one of those people who combines a keen, inquiring mind, passionate commitment to progressive values and an appreciation of the rich diversity of cultures on this planet – whether in the South pacific, Asian villages or, as she is currently doing, introducing North American honours students to the world outside North America in her 'Re-thinking Globalisation' course.

book reviews

Here's a taste of what our reviewers have said. You can read the complete reviews on the Australian Greens website: www.greens.org.au

Heat: how to stop the planet burning

George Monbiot 2006

Allen Lane
$32.95

In this timely book, written with all the gusto those familiar with his columns in *The Guardian* will recognise and applaud, George Monbiot demonstrates what being a 'climate realist' really means – and in so doing, shows just how lamentably short of earning this self-chosen label John Howard falls.

Monbiot's realist proposition is that, to stop the planet burning, global temperature rise must be limited to 2o C above pre-industrial levels, recognised by climate scientists as the critical threshold beyond which uncontrollable positive feedback warming loops are expected to occur. Under a business-as-usual scenario, this threshold is likely to be reached by 2030. To avoid it, developed countries, including Australia, will need to cut greenhouse gas emissions by 90% by that date.

This target is way beyond anything any major political party is considering, and quite a stretch even for the Greens. But Monbiot demonstrates that it is achievable if we really set our minds to it now. Even more important than the technologies that must be implemented – many already existing or near-term – are the new ways of thinking about many every day activities that we need to embrace.

But there is one issue on which even Monbiot's ingenuity and dedication to finding solutions comes to a dead stop - air travel. For he concludes TINA - in Thatcher's famous phrase 'there is no alternative' - to aviation gasoline to power jet engines, and at the height they fly, the warming impact of these emissions is so enhanced that to achieve a 90% reduction TIOOS – 'there is only one solution'; STOP FLYING.

Louise Crossley

Design for Ecological Democracy

RANDOLPH T HESTER 2006

MIT Press, Cambridge, Ma, USA
Hardback, 510 pp,
ISBN-13: 0-262-0851-5

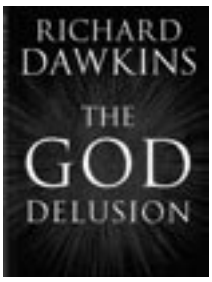
This passionate and beautifully illustrated volume builds on a deep commitment to grassroots democracy and a profound understanding of ecology. It is imbued with an abiding spirit of optimism. Summarising a life's work of farming, landscape design, teaching, political activism and over 500 sources Professor Randolph Hester has written a new classic, one that will enable people to live in maximum harmony with nature in their particular environment.

Advocating resilient and ecologically sensitive design, the work foams with inspiration. It furnishes a framework of principles to be adopted by every person able to affect how and where we live, whatever be their beef - teacher, planner, architect, developer, lawyer, banker, resource manager, bureaucrat, city councillor or politician.

Hester proposes Ecological Democracy as the solution. This he describes as 'government by the people emphasising direct, hands-on involvement. Actions are guided by understanding natural processes and social relationships within our locality and the larger environmental context.'

I want every Green councillor and parliamentarian to ask their reference-library to get this book. Having seen it you will wish to be able to draw on a personal copy for an enthralling, yet practical and worthwhile, vision of the future. I promise.

Dierk von Behrens



The God Delusion

Richard Dawkins 2006

Bantam Press, 406pp, $35.

This latest book by leading intellectual, biologist and philosopher Richard Dawkins is fearless, incisive, humorous, challenging, hard-hitting, passionate, yet scrupulously logical and refreshingly persuasive. Though rejection of belief in God - on the grounds of irrationality and the enormous harm religions inflict - permeates Dawkins' previous renowned works (including *The Selfish Gene* and *The Blind Watchmaker*), here his highly honed analytical skills focus fully on dissecting these belief systems or memeplexes, and illuminating the complex, pervasive, crippling and often deadly damage they do to individuals and communities.

While Dawkins ploughs old fields, he meticulously follows various recently mapped intellectual contours. The chapter 'Why there certainly is no God' characterises his style. He says '… if God really did communicate with humans that fact would emphatically not lie outside science'. Later he continues '… a God who is capable of sending intelligible signals to millions of people simultaneously, and of receiving messages from all of them simultaneously, cannot be, whatever else he might be, simple. Such bandwidth!' (p 154)

Among many examples he gives a spinechilling account of Israeli psychologist George Tamarin's in- and out-group experiment with Israeli children (pp 255 -257), the results of which Dawkins summarises thus: 'It was religion that made the difference between children condemning genocide or condoning it.'

This lucid, brilliantly argued polemic is set to become the religion-opposing classic of the new millennium. This clarion call for truth should find a place on every policy maker's, politician's and voter's desk, in every secondary and tertiary classroom! Heeding its many lessons would justify Richard Dawkins' nomination for the Nobel peace prize.

Dierk von Behrens

Bob's back page

Harry's stand

Harry McDermott OAM, 86, the former Warden (Mayor) of Strahan on Tasmania's West Coast died last Sunday. His funeral was held in People's Park, with Mrs McCutcheon playing 'Let the Rest of the World Go By' on a melodic upright piano next to his flower-decked coffin. Harry's wife Eileen and family of four generations were joined by hundreds of relatives and friends. Harry had been Warden for 28 years when, at the height of the furore over the Franklin Dam in 1982, a surge of absentee voters was brought in to vote him out of office. He never wavered from his 'No Dams' stand and now, 25 years later, many who voted him out say 'Harry was right'. Soldier, wharfie, taxi-driver (when we first met in 1976), historian and multi-skilled handyman, Harry's stand for Strahan gives him an honoured place in Tasmania's history.

Chainsaw Turnbull

At 5pm on Friday 9th of February (after Saturday's press had gone to bed) the nation's new Minister for the Environment, Malcolm Turnbull, issued a press release announcing that he would back Forestry Tasmania's appeal against the Federal Court ruling that logging in Tasmania's Wielangta Forest is illegal. The logging wrecks the habitat of three nationally endangered species – Tasmania's giant Wedge-tailed eagle (bigger than its mainland cousin), Swift Parrot (which can cross Bass Strait in three hours) and the Wielangta broad-toothed stag-beetle. Minister Turnbull must think that the environment, or else his political career, is best served by cutting down native forests. Maybe he thinks that is a safe bet because the Labor shadow minister, Peter Garrett, is silent on the issue. The appeal, before the full bench of the Federal Court, is likely to take about a week in mid-year. See www.on-trial.info for more details.

Coal comfort

My Radio National interview with Fran Kelly, in which I called for a plan to be developed, within three years, to phase out coal emissions and exports, led to front page headlines in Murdoch's Sydney Daily Telegraph and Brisbane's Courier Mail claiming I had demanded Australia's coal mines be closed down within three years. It was a Greens bash and will keep going. Neither of the papers' hacks spoke with me because they knew it would ruin the lie they had agreed to pursue. Both Rudd and Howard ridiculed the idea of any three-year plan. Instead, Malcolm Turnbull grabbed the Greens' idea of phasing out old light bulbs – a worthy way to reduce greenhouse gas emissions equivalent to four shiploads of coal a year. Hundreds of coal-laden ships leave Australia, the world's largest coal exporter, each year. The cost of exported Australian coal emissions to the heated world a century from now would, according to the former World Bank Chief Economist, Sir Nicholas Stern, approach $186 billion per annum.

Silent on Surveillance

I've asked the Attorney-General if any members of Parliament or judges are under surveillance and, if so, by whom. He replied that he was "prohibited from providing the information sought". Sounds like the answer is 'yes' and 'me'. I've asked the US ambassador to have me taken off the 'watch' list at US airports – it causes delays. Apparently, someone in the US administration took umbrage at me speaking to President Bush in our Parliament in 2003.

2007, the Greens, the Senate

In a nutshell, Labor, which has 28 seats now, cannot win a Senate majority of 39 seats at this year's election. The likeliest outcome is Mr Howard's coalition retaining a Senate majority, with Family First as its backup. The alternative is the Greens winning the balance of power. If Rudd Labor wins government, it will face a hostile Howard Senate blocking major bills such as industrial relations reforms. Or it will have the Greens in the balance and the Senate as a House of Review. Given this reality, does anyone believe Labor will repeat its allocation of preferences to Family First or the DLP ahead of the Greens? To date, the Democrats have refused to swap preferences with us.

PS We do like to be beside the seaside. Christine and I were chucked out of our Hobart offices to feed the Lennon government's need for ever more office space. But we're now dockside near Salamanca Place with our happy band of office staff and looking forward to a great 2007.

There is a way that nature speaks, that land speaks. Most of the time,
we are simply not patient enough, quiet enough, to pay attention to the story.

- Linda Hogan

THE GREENS