

THE ECOLOGIST MAY 2004

PLANET • PEOPLE

THE ecologist

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the world is our mirror.



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The Magic Porridge pot

To any normal person it's obvious nature has limits. It's basic maths. The only exceptions are biblical — Jesus feeding the 5,000; or fantastical — hungry boy finds magical self-filling porridge pot. In the real world, trees don't grow forever, mines can't be mined indefinitely, porridge doesn't appear from nowhere.

For the briefest of flickers, it seemed Labour in opposition understood this. 'It is now accepted by almost everyone apart from the [Conservatives],' it said in response to the previous government's road building spree, 'that new roads generate new traffic... Widening existing roads will have much the same effect.' It was a claim backed up by impressive evidence. But then Prescott turned up, and Britain's most ambitious road building project was born, with a budget of some £60 billion spread over 10 years.

Now, using the same logic, the Deputy Prime Minister is trying to solve the problem of housing shortages by flooding the market with vacant buildings in the hope of slowing the rise in house prices. As a result, Britain faces the prospect of 20,000 acres of greenfield countryside covered in concrete over the next five years — equivalent to a



city the size of Manchester. And that does not include the 170,000 new homes already being built every year.

Were Prescott's 'solution' the only one available, it would nevertheless be hard to stomach. Britain is among the most crowded countries on Earth, and were the need to arise, as has happened before, for Britain to feed itself, we would already find the challenge virtually impossible. But beyond that, Prescott's plan is not to incorporate new homes into existing communities, but to allow those communities to be submerged into soulless commuter zones, constructed around the assumption of the human being as a mere economic unit. In short, they will be the kind of settlements an ordinary human would yearn to escape.

But typically, Prescott's solution is not a solution. It is a policy with no end. It's the magic porridge pot. For one thing, even he doesn't imagine his house building splurge will curtail the rise in house prices by more than a fraction of a percent. So it's a heavy price to pay for a solution that is both short term and insignificant. For another, it is widely considered that, just as new roads contribute to congestion, building new houses will have the same

effect: increasing demand. Finally, since most of the new houses are to be constructed in the south of England, the effect will be a further drain on skills from the already 'ghost-town'-infected north.

None of it adds up. What makes it all the more extraordinary is that clear alternatives exist. First, the 2001 census tells us our population is potentially 900,000 fewer than previously thought, so the government's calculations are already off-beat. Second, and more importantly, there are at least 720,000 homes lying vacant. What's more, the vast majority are in southern areas the government regards to be desirable.

So instead of building yet more homes, destroying yet more pasture, swamping yet more distinctive towns and villages, why is the government not looking at mechanisms, through the tax system for instance, to encourage empty home owners to bring them back into use? Why, for that matter, is the government not

In the real world, trees don't grow forever, mines can't be mined indefinitely, porridge doesn't appear from nowhere

focussing its massive programme on brownfield sites, 75,000 acres of which are both available and suitable for up to 1.5 million new homes? There's no obvious answer. Has the government caved into lobbying by the huge construction groups? Has Prescott issued a fatwa

against the English countryside? Or is he just painfully stupid? We can only guess.

Either way, we now face a horrendous building spree, and there will follow a period of intense opposition. But it's not looking good. The government doesn't think much of nimbyism. It doesn't like people looking after their own backyards, preferring instead to do the job for them. So it has embarked on what is referred to as a 'loosening of the planning system'. What that means is that decision making has moved up the ladder, away from local planning authorities to regional planning bodies that operate without public involvement. The best local people can hope for today is the chance to bicker over the details — car parks and wheelchair ramps — of a fait accompli.

The opposition meanwhile, except for Shadow Housing Minister John Hayes, seems to be watching from the hills. So unless the Greens miraculously soar to victory next election, or someone slips a backbone into the Tories, we can expect widespread destruction... and all because one idiot hasn't leant how to use his calculator.

Zac Goldsmith, editor

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Has the hundred-year search for the polio vaccine needlessly condemned many millions to death? Is the real culprit not a virus, but pesticides?

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The World Health Organisation said it would eradicate polio by 2005. Is that why it has reclassified many cases that would have previously been called polio as other afflictions?

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'If you continue to allow these contaminated [polio] vaccines to go out, I guarantee you that over the next 20 years you will have epidemics of cancer unlike anything the world has ever seen.' Bernice Eddy 1972. We now do. Why did no one listen?

COMING UP

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'Farmers are asked to inform on neighbouring farmers in return for a leather jacket. Then Monsanto goes off to harass, intimidate and threaten the offending farmer.' Canadian Farmer Percy Schmeiser talks to The Ecologist about his one man battle against one of the world's most aggressive multinationals.



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You might know who the fifth Beatle was and whom Jordan is sleeping with; but do you know where your water comes from, where your waste goes, or the name of the person that picks it up?



Dreaming of electric sheep

By Robin Maynard

Whitehall regulations are turning farmers into fly swatters



A farmer recently sent me correspondence between himself and the Rural Payments Agency (RPA), which – as the name suggests – oversees the payment of farm subsidies. The correspondence concerned the farmer's application for an environmentally-friendly livestock scheme and his patient attempts to get the RPA to admit that it, not he, had made a series of errors over the appropriate stocking rate for his farm.

I don't have enough space to go into the complexities of how the agency calculates that a two-year-old-cow is equivalent to six sheep. But after a year's exchange of letters and forms bristling with bold-type warnings that the farmer *must* comply with the listed conditions or face 'claims being rejected' and 'risk of prosecution', the RPA finally admitted that it was at fault.

When not bamboozling farmers dealing with *real*, live animals in fields by counting *virtual* sheep as being equivalent to 0.17 of a *virtual* cow, the more than 10,000 civil servants who work for the Department for the Environment Food and Rural Affairs (Defra) spend their time constructing ingenious regulations. Many of these have little to do with protecting the environment, public health or real farming practice.

Fruit growers, for example, must install blue electric fly-zappers in their storage barns. But it gets worse. An exasperated fruit farmer explained: 'Insisting on putting fly-catchers in our barns is not a big deal, but then they expect us to *count* each and every fly that's been zapped!'

Having totted up the dead flies, our fruit grower also has to check none of his workers are wearing watches. Why? Apparently there's a danger that watches may get into the apples. Only if Uri Geller were working there. All packers also have to wear white aprons and hats, which, as the grower said, 'would be understandable if other workers in the food chain, such as supermarket handlers, kept to

the same strictly surgical procedure'.

That last comment hits the nail on the head. Farming, the least profitable part of the food chain, is also the most heavily regulated. Yet supermarkets, the



Farming, the least profitable part of the food chain, is also the most heavily regulated. Supermarkets, the most profitable sector, have avoided anything like the same degree of control and scrutiny

most profitable sector (with Tesco alone making profits in 2001 of £1.4 billion; that's equivalent to 60 per cent of all farm incomes for the same period) have avoided or fought off anything like the degree of control and scrutiny endured by individual farmers. There's no disputing that public health, our environment and its resources must be protected, but it's debatable where the rules and regulations to achieve that protection would best be directed.

Many, if not all, of the negative impacts of modern farming are a consequence of farmers intensifying their production to try and make up for falling farm-

gate prices. And the key drivers of falling farm-gate prices? The concentration of power in the processing and retailing sectors, and, most significantly, the rise of the major supermarkets. Regulating the supermarkets, rather than farmers, would be a better focus for Defra's energies. But who would count those flies?

Robin Maynard is the national coordinator of the independent farmers' campaign FARM, which is a founder member of 'Breaking the Armlock' – a new alliance campaigning for legally binding controls over supermarket practices. An early day motion backing the alliance's demands has been tabled by the Lib Dem MP Andrew George and Labour's David Drew. Visit faxyourmp.com to ask your MP to sign the motion.

How green is your MEP?

With elections for the European Parliament taking place in Britain in June, a new website allows citizens to examine MEPs' environmental records over the last five years. *EU Vote Watch* details MEPs' voting records on a selection of 10 key environmental decisions made by the parliament.

To see how your MEP voted, go to www.EU-votewatch.org.

Mothers-to-be urged to eat more organic food

Experts have urged expectant mothers to eat more organic food and for governments to increase efforts to clean up the environment following the discovery of several harmful toxins in human breast milk. A study by Katherine Tucker of Tufts University, Boston found samples of breast milk contained a range of chemicals from brominated flame retardants, pesticides, synthetic perfumes to PCBs.



GM Watch

Angola rejects GM food aid

Angola has rejected a 19,000-ton shipment of GM maize offered by the US as food aid. Angola was ruined by a long-running civil war that pitted government forces against Unita rebels, and figures from the UN's World Food Programme estimate that about 1.5 million Angolans remain dependent on food aid. Up to 77 per cent of that aid comes from the US. GM critics point out that if cash instead of tied aid were provided, as is the case with most major donors other than the US, Angola would be able to buy surplus food from Zambia. This, in turn, would boost the agricultural economy in the region.



Los Angeles suburb says no to Walmart store

Voters in the Los Angeles community of Inglewood voted overwhelmingly in late March not to let retail giant Walmart build a massive supercentre in their neighbourhood. The world's largest retailer, which owns Asda in the UK, wanted to construct the store on a piece of land the size of nearly 20 football pitches, yet didn't see the need for an environmental impact study or public hearings. Local residents voted 61 to 39 per cent against the project.

Police shoot at anti-privatisation protesters

South African police shot stun grenades at activists protesting against the privatisation of water services in March. The activists were members of the Gauteng Anti-Privatisation Forum (APF). Fifty-two APF members were arrested during the protest, including six children, for violating South Africa's Gatherings Act – a piece of Apartheid-era legislation limiting rights of assembly.

Death in the Pacific a sign of things to come?

Each time a species disappears it brings our own extinction that much closer

By **JOSHUA REICHERT**

In February the US Fish and Wildlife Service removed, with little fanfare, two tropical birds, the Mariana mallard and the Guam broadbill, from its list of endangered species. The birds are now extinct.

The fact that the extinction of these two creatures took place in almost complete silence is a tragedy. Both birds were products of millions of years of evolution. Both were connected to a larger network of species that inter-relate and depend on one another in ways that still remain unknown. And both succumbed to the same types of human-induced pressures that threaten so many other animals: habitat loss, over-hunting and the introduction of non-native species against which they have little or no defence.

Many people would probably ask why we should care that these two birds no longer exist. The answer is that we now know enough about how the world is put together to recognise that each species on earth plays an important role in nature. When a species disappears, it is a harbinger of trouble. Just how or when or if the extinction of a species will affect us in any material way is difficult to define. But there are stark examples of how our disregard for other life forms has imperilled our own survival.

Take, for example, the case of Easter Island. This remote, barren island in the South Pacific, which is best known for its huge, mysterious stone statues, was once covered by a sub-tropical forest. But its Polynesian inhabitants deforested it, driving most of its tree species into extinction along with every species of native land bird. With no wood available to build boats for fishing and the soil so depleted that crops could not be grown, an estimated 90 per cent of the human inhabitants died of starvation.

There are many different reasons why we should rail against extinction. Biologically, because each species is part of a larger, complex assemblage of living things, we should strive to protect them all – particularly as we don't understand how each piece complements each other. There is also a moral reason. It is that earth's creatures, great and small, are not simply here for our benefit: they are *with us* in the world. As such, we have a fundamental responsibility to treat them all with respect and a sense of stewardship.

There were no bells that tolled the departure of the two Pacific birds. But they should have tolled for *us*, as a sad reminder of what we have lost and as a warning for the future.

Joshua Reichert directs the environment division at the research and policy institute the Pew Charitable Trusts. Another version of this article appeared in the LA Times.

For more on these and all other GM issues, visit: www.gmwatch.org



Bayer scraps UK commercialisation plans as 'non-viable'

In what *The Independent* described as a 'huge blow' for the GM lobby, Bayer Cropscience has given up attempts to commercialise GM maize in Britain. The crop is the only transgenic plant to have been approved for widespread cultivation in this country.

Bayer announced that its maize variety Chardon LL had been left 'economically non-viable' because of conditions imposed by environment secretary Margaret Beckett when she gave it limited approval in March. But Brian John of the pressure group GM Free Cymru said: 'We do not accept the Bayer line that the government's

lack of cooperation is the reason for this decision. The government has been pro-GM from the beginning, and it was public pressure that forced Beckett to promise very tight controls. The real reason for the Bayer climb-down is that grassroots campaigners have attacked the science, the liability issue, the herbicide issue, the practicalities of co-existence, and the corruption of the whole GM enterprise with persistence and sophistication. No company can afford to operate in a climate of such unremitting hostility for too long.'

GM crops on hold indefinitely in Australia

Plans to grow GM crops in Australia are on indefinite hold after the New South Wales state government ruled out a 3,000-hectare trial of GM canola. NSW became the fourth Australian state in just over a week to rule out any large-scale growing of GM crops.



The dirtiest democracy money can buy

Bush has rewarded his funders in the US laundry industry with a licence to poison their workforce

By CHRIS FLOYD

Last November, President George W Bush decided that some of the lowliest labourers in America should be left to sicken or die from forced exposure to filthy rags dripping with toxic waste. Why? Because those workers' bosses paid him money.

That's the only reason. They paid George W Bush handsomely, so he gave them protection from laws designed to safeguard workers in industrial laundries. As David Donnelly reported on the website *Campaign Money Watch*, these workers handle 'shop towels' – heavy-duty cleaning rags used to mop up poison chemicals.

Just how crude and blatant was this corporate copulation? Richard Farmer, boss of Cintas – the biggest industrial

launderer in the US, pitched a fundraising campaign for the president in September 2003. In a single night, he forked over \$1.7m to Bush. A few weeks later Bush's minions at the ever-more ironically named Environmental Protection Agency (EPA) introduced a new rule that would exempt Farmer's industry 'from federal hazardous and solid waste requirements for shop towels contaminated with toxic chemicals'.

How much quid was this pro quo worth? The EPA says industrial launderers will save more than \$30m a year by ditching safety procedures for their wage slaves, most of whom are low-paid immigrants. Not a bad return on a \$1.7m investment.

And Farmer's certainly no slouch when it comes to putting out quo. He and his company have given more than \$2m to the Republican Party since it came to power in December 2000. In fact, Farmer is one of Bush's little 'Rangers', a rank reserved for tycoons

who network their connections – and browbeat their employees – into contributing at least \$200,000 into Bush's wide-open coffers.

But is the EPA decision really so awful? Will anyone die because of it? Probably not; not immediately, anyway. Oh sure, patches of their skin will fall off, their sinuses will rot, their lungs will deteriorate, they'll be crippled, pain-wracked and saddled by crushing debt because of a rapacious medical system, the measly public benefits of which were gutted late last year by yet another quid job between Bush and his corporate johns (more than \$46 billion was siphoned from the public purse to private health plans).

Of course, the laundry workers will also see their cells fill up with a sediment of cancer-causing toxins. But most of these time-bombs of malignancy won't explode until after Richard Farmer and his fellow 'rangers' have squeezed all possible profit from the infected peons' labour.

And such profits can be huge. Farmer, already one of the US's richest men, saw Cintas make almost \$250m in profit last year alone. Cintas controls a third of the US laundry market. So, overall, the US laundry industry takes home about \$750m in profit annually. Yet even with such vast profits, Farmer still wanted safety legislation loosened.

The new EPA rule will allow the laundry bosses to process a massive amount of toxic solvents, which will then find their way into the rivers, streams and groundwater of surrounding communities. Not to worry, though: Cintas has a sterling record of environmental husbandry and concern for community health. For example, one of its Connecticut plants has been cited 250 times for violations that can cause 'death or serious physical harm'. Its indiscretions have included 'excessive emissions of cancer-causing solvents' and 'serious lapses in worker training, hazardous material handling and [the use of] protective equipment'.

Chris Floyd is a columnist for *The Moscow Times*



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Pesticide ban leads to heavier babies

A US ban on the indoor use of the pesticides chlorpyrifos and diazinon has led to a 'marked' and 'immediate' improvement in baby size among minority communities living in New York, a new report reveals. Previously, the use of the pesticides was particularly prevalent by African-Americans and Dominicans living in the city. In households with the heaviest exposure babies were, on average, 6.6 ounces lighter and one third of an inch shorter than those where residents had no measurable amount of the insecticides in their blood. The research was carried out at the Mailman School of Public Health at Columbia University.

For more information go to www.foodcomm.org.uk



Rainforest destroyed by taste for beef

The rapid growth of cattle farming in Brazil is the main reason the Amazon rainforest is being destroyed at an increasing rate, according to a new report by the Centre for International Forestry Research. European demand for certified foot-and-mouth-disease-free meat means Europe imports 40 per cent of Brazil's beef.

The rough guide to economic nonsense

By Andrew Simms



Banks literally have a licence to print money

'If you need money,' a friend always tells me, 'just repeat "money flows to me" and it will.' And indeed this simple formula seems to work very well for Britain's biggest banks. [In a single month] the Royal Bank of Scotland posted annual profits of over £6 billion, HBOS (the group that includes the Halifax and the Bank of Scotland) announced profits of more than £3 billion and HSBC reported an amazing £7 billion profit.

Shareholders and the City of London fell to their knees to worship whatever mysterious financial acumen was capable of accumulating such vast amounts.

Considering that most of us are almost always flat broke, where the hell does it all come from? The answer reveals what a nonsense the current banking system is. 'The process by which banks create money is so simple that the mind is repelled,' wrote US economist JK Galbraith in *Money: whence it came, where it went*. Banks create money almost by magic.

The image of banks from heist movies and Westerns, with vaults full of cash and gold, is about as real as English accents in Disney movies. Very long gone are the days when for every pound one person borrows from a bank someone else safely squirrels away a pound of savings.

About 95 per cent of our money is created by people in commercial banks simply typing numbers into our accounts. For example, if you want to borrow money to buy a house, your mortgage appears by the bank entering a credit into your account and a debit into theirs. This system is very elastic for the already rich, who can leverage such loans against other assets or their earning potential, but it is restrictive for the poor, who have no such leverage. Then the banks make lots and lots of more money by charging us interest.

The only reason banks can do this is because the government and the Bank of England, the regulators of the

UK's financial system, let them. Commercial banks literally have a licence to print money. The proportion of money created this way has grown steadily since the 1960s. This acceleration has been encouraged by

financial deregulation and the retreat of the state.

It matters because both we and the public purse are getting ripped off. The British economist James Robertson estimates: 'In the UK, commercial banks receive a hidden subsidy of around £25 billion a year from the interest they earn on creating money.' If the function of creating money was taken back into the public domain, the benefit to the taxpayer would represent a very significant chunk of public spending.

It also matters because the ease with which money can be borrowed is leading to runaway levels of consumer debt, with linked consumption of resources, and an increasingly volatile and fragile economy. Consumer debt hit a record £171 billion in February 2004, and bankruptcy rates – a classic indicator of a wavering credit bubble – rose by about a quarter between early 2000 and the end of 2003.

A rich-country debt crisis is staring us in the face because poorly regulated banks are giving us more than enough rope with which to hang ourselves, and getting rich in the process. Fortunately, pressure is growing for a radical overhaul of the money system. There are campaigns to return the benefits of creating money to the public and to communities, and to prevent a painful economic crash. How this could be done will be the subject of a future column. Ironically, the banks' success in milking the system has attracted sufficient attention to make change almost inevitable. Prepare for the wiping away of a lot of some smug grins.

Andrew Simms is policy director for economics think tank the New Economics Foundation



The image of banks from heist movies and Westerns, with vaults full of cash and gold, is about as real as English accents in Disney movies

Dying for art

By Malcolm Tait

Man's exploitation of the mongoose is having disastrous effects on biodiversity



'It is all over with Rikki-tikki! We must sing his death song. Valiant Rikki-tikki is dead!'

Of course, Rikki-tikki-tavi, Rudyard Kipling's plucky little mongoose, whose lament was prematurely crooned by Darzee the tailor-bird, was not dead. He had, in fact, survived his fight with the she-cobra Nagaina, whose hunger for eggs had already robbed Darzee and his wife of one of their brood. Rikki made sure that Nagaina would hunger no more. Some eggs would still be lost, and snakes would still thrive in the area, but Rikki-tikki-tavi would continue to ensure that the balance of nature would not be upset.

But now it's time for Darzee to sing his song once more. The mongoose is in serious, very serious, decline in India. At least 100,000 are illegally killed each year, and this is beginning to take its toll. But why are these animals dying? They're dying for art. They're dying so you and I can make pretty pictures. They're dying to make paintbrushes.

At least 100,000 mongooses are illegally killed in India each year. Why? Apparently they're dying to make paintbrushes.

The trade in mongoose hair was banned in India in 2002, following six months of investigations into paintbrush factories by the New Delhi Wildlife Trust. Banning trade and stopping it are two different things. Let's face it, banned animal products instantly gain market value. The lower the mongoose population, the greater the prestige attached to your tool for painting yet another bowl of fruit.

So, the natural balance maintained by the mongoose *is* now in jeopardy of being upset. India has many species of bird that nest closer to the ground than might be considered wise in a country full of snakes. Without the mongoose to protect them, these birds' lack of caution can become vulnerability. Further population swings ensue.

Now jump to the Caribbean for the flip-side of this story. Not a mongoose in sight; in fact, barely a natural predator – until, that is, sugar-cane plantations became the norm. The Indian mongoose was introduced as a means of pest control, and today they're doing pretty well, thank you very much. Not much else is, though. In Jamaica one lizard, two birds, a snake and a rodent have become extinct, largely thanks to the busy little carnivore. Puerto Rico, meanwhile, has lost seven species. Other creatures across Antigua, the Antilles, Costa Rica and elsewhere are also suffering.

You read *The Ecologist*, so you don't need a lesson in the effects of animal trafficking and transportation on biodiversity. But every now and then we all of us need to remind ourselves of the sheer stupidity of what we're all doing. Gross natural imbalances are being perpetrated on two continents, all because we like to tickle up our watercolours and drop a bit of sugar in our tea.

Malcolm Tait is the former managing editor of *The Ecologist*

Harken oil versus Costa Rica

A lesson in how corporations use international agreements to bully countries into dropping environmental protections.

By MARK ENGLER & NADIA MARTINEZ

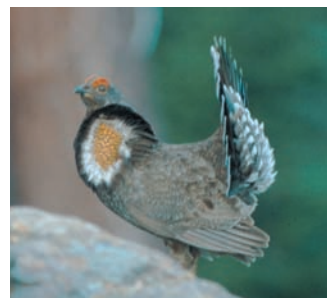
In May 2002 president Abel Pacheco announced a moratorium on oil exploration and open-pit mining in Costa Rica. He was responding to a large-scale mobilisation of local environmentalists in the country. At least one multinational interest wasn't happy about the moratorium, however. Harken Energy, a Texas-based oil company with close ties to George W Bush, had previously obtained rights to search for crude in Costa Rica. Before failing an environmental impact review in February 2002, Harken had planned to drill offshore. Now it is demanding that the Costa Rican government pay upwards of \$12m in reparations for its aborted exploits.

But with the US and five Central American countries currently working to ratify the Central American Free Trade Agreement (Cafta), it's not just local environmentalists and Texas oil barons who are closely watching developments in the Harken dispute. International observers say the case is shaping up as the latest cautionary tale of how 'free trade' agreements give corporations the power to trump local environmental laws.

In 1994 the Costa Rican legislature passed a hydrocarbons law as part of a series of measures designed to comply with a World

Gulf war babies more likely to be deformed

Babies whose fathers served in the first Gulf war are 50 per cent more likely to suffer physical abnormalities than babies born to soldiers not involved in the conflict, according to research published in the *International Journal of Epidemiology*. Furthermore, the soldiers' wives are 40 per cent more likely to miscarry.



Bird of the month

Dendragapus obscurus howardi

a fairly obscure sub-species of, believe it or not, the blue grouse.

Huge drop in Cambodian fish catch threatens poor

The amount of fish caught in a Cambodian tributary of the Mekong River has fallen by about 50 percent in the last 12 months, threatening the livelihoods of many poor people in the region. The decline was primarily caused by overfishing and adverse weather conditions in 2003, and has resulted in a massive increase in the price of fish, putting it beyond the means of many people. Up to 80 percent of the 55 million people who live in the lower Mekong Basin region depend on fish for food and income.

Bank- and IMF-sponsored structural adjustment programme. The new law opened the way for foreign corporations to win concessions on oil exploration. Subsequently, a little-known Louisiana-based company named MKJ Xploration successfully bid to prospect in several sites on the nation's Caribbean coast. The company later sold its Costa Rican interests to Harken.

Residents, fishermen, indigenous groups and environmentalists argued that offshore drilling would damage coral reefs and mangrove swamps and threaten endangered sea life in the region. They waged a prolonged battle against the deal, and eventually won. Harken was defeated on the grounds that its environmental impact statement was inadequate.

The Texan company was furious. Arguing that it had already invested more than \$12m in the deal, it invoked international investment treaties in an attempt to sue Costa Rica for \$57 billion – a figure it said represented the total projected profits of the scuttled deal. Costa Rica's annual GDP is around \$17 billion.

Last September, soon after the World Bank's International Centre for the Settlement of Investment Disputes notified the Costa Rican government of Harken's claim against it, Pacheco announced that his country would not submit to international arbitration. He refused to acknowledge any decision made by the bank's body, insisting instead that the dispute should be settled in a Costa Rican court. A few days later Harken withdrew its claim in favour of plans to reach an out-of-court agreement.

In January the former Democratic senator for New Jersey Robert Torricelli travelled to Costa Rica to negotiate on Harken's

behalf. However, the two parties were unable to agree a settlement, and it appears that the talks have failed. On 11 March the government stated that Harken did not have legal grounds to demand compensation and that Costa Rica is not obliged to pay anything. The dispute is on course to return to international arbitration in the near future.

As the Harken case has moved forward, so has Cafta. In December the US finished negotiations with Guatemala, Honduras, El Salvador, and Nicaragua on the agreement. Costa Rica, which had held back over concerns about privatisation, was brought into the accord in January. Now, each country must ratify the treaty if it is to become law.

For opponents of Cafta the Harken case is a paradigm of how corporations use international agreements to bully countries into dropping environmental protections. Cafta's investor protections, which are similar to those in the North American Free Trade Agreement's notorious Chapter 11, allow companies to take complaints directly to international tribunals. Under the new agreement, Costa Rica would not be able to rebuff efforts to bypass its national courts. Instead, it would have to allow deliberations about Harken's astronomical \$57 billion 'compensation claim' to move forward on the international level.

Mark Engler (engler@eudoramail.com) is a commentator for the think-tank Foreign Policy in Focus; Nadia Martinez is a research associate with the Sustainable Energy and Economy Network (www.seen.org). A version of this article first appeared in Grist Magazine

Climate-change monitor

RECORD CO₂ LEVELS IN EARTH'S ATMOSPHERE

The level of CO₂ in the Earth's atmosphere reached record levels this March, according to readings from Hawaii's Mauna Loa Observatory. Average readings at the observatory, situated 11,141-foot up the volcano, were around 379 parts per million compared with about 376ppm a year ago. Not only were the volumes the highest ever, but the rate of increase was getting faster, meaning efforts to slow climate change are being negated by faster growth in industrial output. The current annual increase of about 3 parts per million is considerably higher than the average annual increase of 1.8 parts per million during the past decade, and far more than the 1 part per million annual increase recorded a half-century ago, when observations were first made at the site.



RENEWABLES GOOD FOR US STATE'S ECONOMY

The economy of New Jersey would benefit from shifting away from fossil fuels to renewable energy, according to a new report. The findings, by the New Jersey Public Interest Research Group, pour water on the customary argument of anti-renewable energy advocates that it's a choice of economy or environment. The report claims that as well as developing creating jobs in manufacturing, installation, operation, and maintenance, renewable energies would cut energy bills and provide a much needed alternative source of income to rural landowners who lease their land for wind farms

AMAZON DAMAGE EVEN WORSE THAN THOUGHT

Areas of the Amazon rainforest previously considered pristine are being damaged as a result of increased levels of carbon dioxide in the atmosphere, says a new study. Researchers at the Panama-based Smithsonian Tropical Research Institute, whose findings were published in the journal *Nature*, found that the growth of tall, fast-growing trees was accelerating because of

increased levels of [CO₂] in the atmosphere, and that denser, shorter and slower-growing trees beneath the forest canopy were declining. As fast-growing trees absorb less carbon dioxide, the institute's researchers believe that the rainforest's ability to serve as a 'carbon sink' could be significantly diminished.





Law firm tries to infiltrate activists

A lawyer who infiltrated an animal rights group has been exposed. The lawyer, from the giant corporate law firm Clifford Chance, admitted that his aim had been to persuade activists to intensify their campaign against the company's client State Street Bank. The bank has become a target for activists because of its association with the vivisection company Huntingdon Life Sciences. Apparently, the lawyer had hoped to provoke activity that would enable Clifford Chance to label the animal rights activists as extremists.



European Parliament rejects ban on 'most dangerous' climate gases

The European Parliament has rejected calls to regulate fluorinated gases, a family of man-made chemicals – including CFCs – which contain the most potent greenhouse gases affecting the Earth's climate. Dr Caroline Lucas, Green MEP for the South East slammed the parliament, saying: 'The chemical industry, having sold CFCs and other ozone killers for decades, has won a major victory against the protection of the climate on Earth. It is outrageous to see that appeasing the chemical industry is more important than saving millions of people threatened by the severe consequences of climate change.'

The lingering lessons of Exxon Valdez

Marybeth Holleman reveals how, 15 years later, the legacy of the Exxon Valdez oil spill still exacts a heavy price on the communities and wildlife of the region where the tragedy occurred.

By MARYBETH HOLLEMAN

Fifteen years ago this week, the Exxon Valdez slammed into Bligh Reef and spilled over 40,000 tons of crude oil into Alaska's Prince William Sound. .

What ensued – 1,500 miles of oiled shoreline, several hundred thousand dead birds and marine mammals – remains the most damaging oil spill in history. Not even the 1.7 million tons of oil unleashed by Saddam Hussein on his retreat from Kuwait in 1991 was as damaging; in the warm climate of the Persian Gulf, 40 percent evaporated within a few weeks.

We are compelled to continue paying attention to the Alaska oil spill for the same reason we study history: to learn from past mistakes. What's more, the Exxon Valdez oil spill isn't yet history. Even though oil-spill science has made it one of the most studied coastal ecosystems in the world, this 10,000-square-mile tapestry of icefields, mountains, forests and sea is far from recovered. Lingering and unanticipated injuries abound.

A 2001 study found more than 100 tons of toxic oil remaining on dozens of the Sound's beaches, oil that seeps out with every tide, and that – because incomplete weathering left behind higher concentrations of toxins – is even more poisonous now than when it gushed from the ripped tanker. This oil will remain on these beaches for decades to come.

Chronic exposure to persistent oil and a cascade of indirect effects have interrupted and decreased wildlife populations. The acute mortality of those first few months was not the worst of it. Today, only six of the 26 species and habitats most injured by oil have recovered. Some – including orcas, harbour seals and harlequin ducks – continue to decline.

Herring populations, critical food for over 40 species of fish, mammals and birds, crashed several years after the spill and have not recovered. Sea otter populations in heavily oiled regions have likewise failed to recover; their survival rates actually continued to decline for

years after 1989. What's more, their absence in controlling sea urchin populations may lead to the loss of kelp beds.

And, like a clear-cut old-growth forest, some intertidal habitats have not recovered their pre-spill structure and species diversity. It's an inexorable domino effect throughout the ecosystem.

While the ecosystem and its wild inhabitants continue to bear the brunt of this catastrophe, human communities are also still affected. Amazingly – 15 years later, Exxon has yet to pay what it owes to thousands of people whose commercial fishing and subsistence economies were upended by the spill. The \$5 billion verdict handed down by a jury in 1994 is still not paid. Meanwhile, over 1,200 of the plaintiffs have passed away, each of them having spent the last years of their lives waiting for the spill to be over.

We've made progress on some fronts – notably, our coastal habitat protection program, an improved spill-prevention and response system, and a citizens council to oversee the oil industry and state and federal governments – but we haven't done enough. Government officials haven't asked Exxon for the additional \$100 million under a 'reopener for unknown injury' clause, though unanticipated damage is as easy to find as oil under beach rocks.

And we've made some things worse: The massive \$400 million spill-research boom in the Sound brought its own unanticipated injury, through intrusive sampling methods and the swarms of scientists, tent camps, boats and planes now in the Sound much of the year. It's as if we have confused science with restoration, knowledge with healing.

A spill such as this could happen again in Alaska – despite precautions, major oil spills continue all over the world – Spain, France, Scotland, Pakistan.

Here in Alaska, when we see the images of yet another oil spill, we get it, at a visceral level: This isn't just an echo of our past. It's a reminder to all of us who live near and care for precious coastal areas that another tragedy could happen any day.

Alaska resident Marybeth Holleman is author of [The Heart of the Sound: An Alaskan Paradise Found and Nearly Lost](#). This article was originally published in the [Seattle Times](#).



There is increasing evidence that nano-particles – already routinely used in cosmetics, fashion and building materials – pose a serious threat to health and the environment

In the week that Bayer finally pulled the plug on its attempts to cultivate GM crops commercially in the UK, scientists from Florida were sharing the most alarming proof yet of the next technological assault on the environment – nano-pollution.

At the American Chemical Society's national meeting in California in March, environmental toxicologist Dr Eva Oberdörster described what happened when she exposed nine fish (large-mouth bass) to water containing small amounts of nanotechnology's so-called 'miracle molecules' – buckyballs. (Buckyballs are hollow clusters of carbon atoms arranged into perfect geodesic spheres; see 'Seeing is believing', May 2003).

After only 48 hours Oberdörster's team found that the fish had suffered 'severe' damage to brain tissue, which induced a condition that in humans has been linked to illnesses such as Alzheimer's disease. The researchers also found an indication of inflammation in the livers of the fish, which suggested a full-body response to the buckyball exposure.

In a separate experiment Oberdörster found that buckyballs are also toxic to tiny crustaceans known as 'water fleas': half the water-flea population involved in an experiment using buckyball-tainted water died within two days. Because water fleas are an important aquatic food source Oberdörster expressed concern that nano-particles could begin to accumulate throughout the food chain, and that their toxicity could affect other animals – including people.

Although nano-particles are already routinely used in cosmetics, clothing, building materials and even in environmental clean-up, Oberdörster's study is

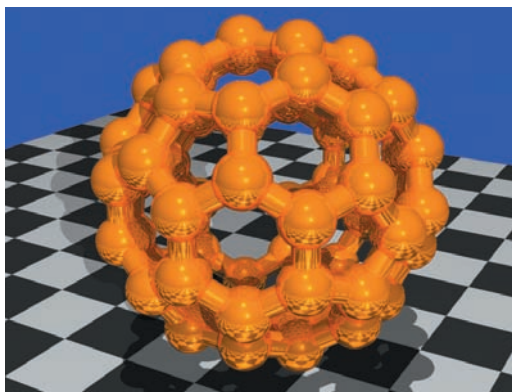
the first to consider the ecological impacts of nano-materials. As a class, nano-particles are still untested and unregulated. Buckyballs, thought to be one of the strongest materials ever invented, are close to being produced in

multi-ton quantities for uses ranging from data storage to fertilisers. Nano-tubes, elongated fibrous versions of buckyballs, are already used for strengthening car body parts and tennis racquets, and from next year they will be incorporated into flat-screen TVs and fuel cells for lap-tops and mobile phones. A recent review performed by the Washington-based think-tank the Meridian Institute found that neither buckyballs nor nano-tubes are covered by any existing toxicity legislation, a point also readily conceded by the European Commission.

Oberdörster's report is about the 10th toxic warning on nano-materials to emerge in the last few years. Each of these reports has pointed to the urgent need for a moratorium on the handling and release of nano-particles. Indeed, a recent study of nanotechnology policy commissioned by the European Parliament concluded that there is a good case under the precautionary principle for prohibiting any further release of nano-particles into the environment. It is a message that policymakers might be more ready to

listen to in this post-GM world than was the case a few years ago.

Jim Thomas is the European programme manager of the technology watchdog the Action Group on Erosion, Technology and Concentration (www.etcgroup.org)



After only 48 hours of the fish being exposed to nano-particles researchers found 'severe' damage to brain tissue, which induced a condition that has been linked to illnesses such as Alzheimer's disease in humans

Ten toxic warnings

- 1 1997: Titanium dioxide/zinc oxide nano-particles used in sunscreen are found to cause free radicals in skin cells, damaging DNA
- 2 March 2002: Researchers at the Houston-based Center for Biological and Environmental Nanotechnology (CBEN) report that engineered nano-particles accumulate in the cells and organs of lab animals
- 3 March 2003: Nasa researchers report that nano-tubes produce a more toxic response on the lungs of rats than quartz dust
- 4 March 2003: Toxicopathologist Dr Vyvyan Howard reports that nano-particles are capable of crossing the blood-brain barrier in humans
- 5 July 2003: The journal *Nature* reports on work by CBEN scientist Mason Tomson showing that buckyballs can travel unhindered through the soil; CBEN director Dr Vicki Colvin says: 'Nano-particles could easily be absorbed by earthworms, possibly allowing them to move up the food-chain and reach humans'
- 6 January 2004: Research is published showing that nano-particles can easily move from the nasal passageway to the brain
- 7 January 2004: Writing in *Nature*, nano-safety researchers from the University of Leuven in Belgium state: 'Producers of nano-materials have a duty to provide relevant toxicity test results for any new material, according to prevailing international guidelines on risk-assessment. Even some 'old'
- 8 January 2004: At the first scientific conference on nano-toxicity, Nanotox 2004, Howard presents evidence suggesting that gold nano-particles can move across the placenta from mother to fetus
- 9 February 2004: Scientists at the University of California, San Diego discover that cadmium selenide nano-particles (quantum dots) can break down in the human body, potentially causing cadmium poisoning
- 10 March 2004: Dr Eva Oberdörster reports to the American Chemical Society that buckyballs cause brain damage and changes in gene function in fish



CHINA SANDSTORMS BECOME GLOBAL PROBLEMS

Massive sandstorms that originate in northern China and Mongolia are sweeping across the world, in what the United Nations Environment Programme's Executive Director Klaus Toepfer calls 'the globalization of environmental problems'. Although the sandstorms have occurred for as long as records exist, they have greatly increased in frequency in the past 50 years, exacerbated by desertification resulting from deforestation caused by China's escalating industrialisation. They are made worse by the ever-growing amount of pollution in the country. Instead of being absorbed by the now felled trees, the pollution is taken up by the sandstorms, which then spread southeastward across the Korean Peninsula, Japan, Hawaii, and even as far as the western seaboard of the US.

DAM THREATENS UNIQUE CHINESE ECOSYSTEM

The Chinese Prime Minister has called a halt to a massive dam project planned for the Nu river in south western China to allow for further research into its potential environmental effects. Critics of the scheme are concerned that the dam was to be sited in a UN World Heritage Site, which contains old-growth forests, 7,000 species of plants, and 80 rare or endangered animal species accounting for a quarter of China's indigenous plant species and half of its native animal species.



McDonald's cooks up a fresh serving of PR

The fast food chain's decision to stop selling giant portions will not affect its profits or the health of its customers

By **GEORGE RITZER**

The decision by McDonald's to phase out giant-sized drinks and French fries from its restaurants is reminiscent of superpower decisions in the bad old days of the cold war. Periodically, the superpowers would agree to do away with a few of their nuclear weapons while simultaneously retaining the bulk of their stockpiles and complementing them with new, more powerful weapons. Even without super-sizing McDonald's continues to stockpile menu items that are extraordinarily high in calories, fat, cholesterol, salt and all those other things that are killing so many people so prematurely. Recently, the chain added to its menu supposedly healthy salads, some of which have been found to contain more calories than a Big Mac.

McDonald's will not suffer much financially from its decision to stop super-sizing, since its giant portions did not sell well anyway. And eliminating these items allows the company to further streamline its menu and operations.

So, does McDonald's ending of super-sizing represent the beginning of a dramatic change in the way fast-food restaurants operate? My guess is that it is little more than another minor skirmish in the larger battle to appease those forces that are alarmed by and opposed to the whole process of 'McDonaldisation'.

McDonaldisation emphasises, among other things, quantity over quality. It is not restricted to the restaurant industry, but is manifested in an obsession with the over-sized in general –

particularly in the US: witness Americans' love for SUVs and McMansions and the overstuffed furniture needed to fill those mansions. It will take more than McDonald's ceasing to sell giant portions of French fries to end Americans' love affair with monster automobiles. What is needed is more expensive oil – maybe a complete shutdown of oil pipelines in the Middle East.

Do we blame the manufacturers and retailers or the consumers of these super-sized products for the problems they cause? Disproportionately, we should blame industry. Yes, consumers can and should just say no to

Big Macs and Lincoln Navigators. But they have to do this in a world in which great sums of money are invested in making those things easily attainable and highly alluring, even impossible to escape and resist.

Furthermore, great efforts are made by many

industries, especially the fast-food industry, to seduce children, even very young ones, with their products. Won over to this food and the associated lifestyle at a very young age, most of these children grow up in the thrall of the fast-food industry and its products.

Childhood obesity, at least in part because of fast food, is now widespread. Eating habits acquired in childhood are likely to make overweight children put on even more weight in adulthood. If the fast-food companies really want to do something about obesity, they should eliminate all the products, packaging, promotions, toys, tie-ins and the like designed to attract children.

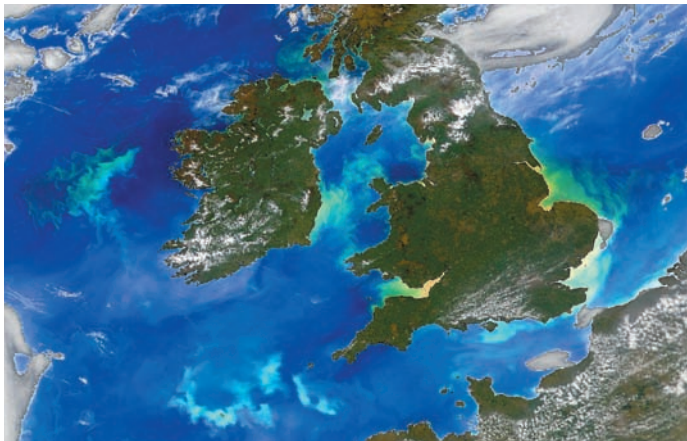


George Ritzer is professor of sociology at the University of Maryland and author of [The McDonaldization of Society](#) and [Globalization of Nothing](#)



Europe could run on renewable energy

Every home in Europe could be powered by renewable energy, according to a new report. *Sea Wind Europe*, a study by wind-energy consultancy Garrad Hassan, analysed wind speeds, sea depths, economic infrastructure and advancements in offshore wind technology. It concluded that up to 50,000 turbines could be built in the seas around Europe, which could generate enough power for over 150 million homes. The consultancy added that by 2020 wind power could generate up to 3 million jobs across Europe. Meanwhile, the global amount of energy generated by wind rose by more than a quarter in 2003, to 39,294 megawatts; 40 per cent of that energy was generated in Germany alone.



Dead zones greatest threat of all to ocean life

Large areas of the world's oceans have become deprived of oxygen, making them uninhabitable for fish and plant life, according to the UN Environment Programme (UNEP). The UNEP says these so-called 'dead zones' constitute the greatest threat to the world's oceans over the next 100 years. It states that the main cause of the dead zones is an increase in nitrogen in seas, primarily from agricultural fertilisers. The nitrogen creates massive algae blooms (see above), which consume all the oxygen in seawater. The dead zones have doubled in number every 10 years since the 1960s and can measure up to 43,500 square miles in size.

How (not) to answer difficult questions

It's a reply to make Jack Straw proud. Leslie Green, who works for PR firm Stapleton Communications, was asked to comment on charges that one of the company's client's AXT Inc was poisoning its workers with gallium arsenide, a potent carcinogen used to make semiconductors. Green replied: 'We do appreciate the opportunity to respond to, I guess, some of the questions that you have for AXT. We are going to pass on the opportunity to participate in your article at this point, but again, I do appreciate the opportunity.'

Building supplier pulls out of vivisection lab

Travis Perkins, the UK's largest supplier of building materials, has decided not to continue providing raw materials for the construction of an animal research project in Oxford. The firm made its decision to cease supplying the Oxford University project following pressure from anti-vivisectionists. Earlier this year the same activists were instrumental in defeating plans for a similar laboratory in Cambridge.

For more on the campaign against the Oxford animal research centre, visit: www.speakcampaigns.org.uk

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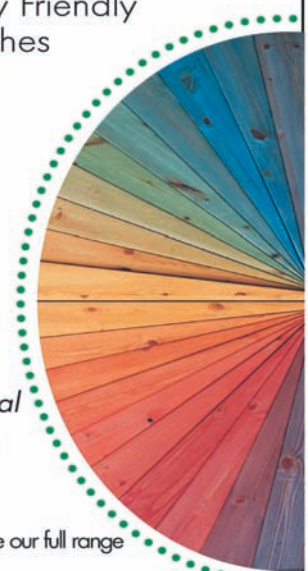


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by YVES ENGLER

Behind mountains there are more mountains' is a popular Haitian saying that describes both Haiti's landscape and its tortured history. The recent political upheaval in the Caribbean country represents yet another mountain for the poor majority of its population. This year marks the 200th anniversary of the 1804 declaration of independence by Haiti's self-emancipated slaves. Two centuries after that declaration, on February 29 this year, the country's elected president Jean-Bertrand Aristide was either kidnapped by US forces or fled in the face of an armed revolt, depending on whose story you believe. One truth that cannot be denied is that Haiti's traditional power brokers have now removed the former Catholic priest Aristide from office twice.

Last autumn, after having boycotted Haiti's presidential elections in 2000 and organising an unsuccessful coup a year later, the opposition began a concerted campaign to oust Aristide. The exact details of the 2004 coup will probably not be known for 30 years, when certain countries' archives release pertinent material, but some things are clear even now. The opposition, consisting primarily of the country's business class, launched provocative protests in the Haitian capital Port-au-Prince. Under the opposition's direction, 'students' went on strike, refusing to obtain mandatory permits allowing them to do so, ignoring government-approved routes for their protests and intimidating students who did not join them. Pro-government supporters (called '*chimères*') attacked the protesters, and soon the supposed popular political discontent was

transformed into an armed insurrection led by rebels with very unsavoury backgrounds. Once it seemed likely that the rebels (armed with US weapons) had a chance of taking control of a country that had nine years earlier abolished its army, the US (with French and Canadian help) exerted pressure – not to save the legally elected government, but to remove from office Haiti's most popular leader since independence.

Haiti is the poorest country in the Americas: 40 per cent poorer, in GDP terms, than Nicaragua, the next poorest nation in the region. It has the highest Aids rate in the hemisphere. Life expectancy at birth is less than 50 years. Fifty per cent of Haitians are illiterate. Poverty is so intense that Haitians try to escape overland to the desolate Dominican Republic, where they are subject to intense prejudice, or by sea to the US, where they are almost entirely unwelcome.

Less than 1.5 per cent of Haiti is forested today; that's down from 20 per cent in 1956, and 75 per cent when

A denial of

European explorers arrived five centuries ago. Entire villages move from place to place, cutting down trees to sell as charcoal – one of the few ways indigent Haitians can make a living. The result is massive soil erosion: every year about 15,000 acres of fertile topsoil are washed away in Haiti. Added to which, unregulated construction on hillsides, threatens to wipe out whole neighbourhoods in Port-au-Prince.

But Haiti's environmental problems are not restricted to the land: most of its water is polluted by waste, soil run-offs and inadequate sewage systems. This water pollution affects many of the country's coastal areas, and is partly responsible for the diminishing stock of fish for local fishermen. Water throughout the country is not fit for drinking.

To put it succinctly, Haiti is a failed state: one of those places that just can't seem to get its act together, despite the

Photographs by Leah Gordon are part of a stunning photography exhibition organised by the Catholic Institute for International Relations and held in the Spitz Gallery, 109 Commercial Street, Old Spitalfields Market, London E1 between the 19-26 April 2004.



Haiti is a failed state: one of those places that just can't seem to get its act together, despite the best efforts of benevolent Western powers. Or so the mainstream media would have you believe. Yet history tells us a more complicated story.



beautiful dreams

best efforts of benevolent Western powers. Or so the mainstream media would have you believe. Yet history tells us a more complicated story.

The 'Pearl of the Antilles', Haiti was once a rich country – at least for some. Economists estimate that it provided as much as 50 per cent of France's GNP in the 1750s. Super profits were made from using African slaves to produce sugar, cocoa, coffee, cotton, tobacco, indigo and other commodities. Yet these slaves never accepted the sub-human status that the system tried to impose on them. Runaways, known as *maroons*, developed isolated communities in the countryside that regularly raided slave plantations. Recapture often meant death, so those who escaped had to be cunning.

Haiti's strict racial code also marginalised the 'free coloureds', many

of whom, as offspring of the French property owners, were major landowners. 'Free coloureds' owned as much as one-third of the country and were almost as numerous as the whites by the late 1700s. Whites, especially non-landowners, who derived their status from skin colour, objected ferociously to any political rights for the free coloureds, regardless of their wealth.

Spurred by the egalitarian ideals of the French Revolution, the free coloureds revolted. This division within the landowning class was immediately exploited by the slaves. In August 1791 a violent slave rebellion began in the north and promptly spread. The brilliant Toussaint L'Ouverture took the lead, announcing: 'Brothers and friends, I am Toussaint L'Ouverture. My name is perhaps known to you. I have undertaken vengeance. I want liberty

and equality to reign.'

In 1796 the British sent a massive expeditionary force to crush the ex-slaves before their example spread across the region. The expedition was a complete failure. Then Napoleon Bonaparte sent 35,000 French troops to re-conquer the former colony and restore slavery. Despite a campaign of terror waged against the Haitian people, Napoleon too was defeated. Spain also sent thousands of troops against the self-emancipated slaves between 1791 and 1804.

After victories over three empires the slaves of Haiti declared independence in 1804. L'Ouverture himself never got to appreciate the reality of independence. After being lured to a meeting supposedly to discuss peace, he was transported across the Atlantic to France, where he died in captivity. And

Jean-Jacques Dessalines, Haiti's leader in 1804, was murdered two years after independence in the first of the country's more than 30 coups. (As Haitians say, 'a constitution is paper, the bayonet is steel'.)

Despite independence and an end to slavery, Haiti's prospects were grim. The US, a relatively new and large slave-holding nation to the north, and the French, British and Spanish empires didn't take kindly to the idea of this new and independent republic and attempted to strangle Haiti economically. Under the threat of embargoes and military intervention, Haiti agreed to



independence. The US also created the Haitian army, which was used as an instrument of terror by the elite against Haiti's poor for the next 70 years. (Aristide disbanded the army in 1995, an act that is widely considered to be the most important human rights

victory in recent Haitian history. Remnants of the army formed a central part of the 'rebel' forces that helped oust Aristide, and one of the interim president's Gerard Latortue first actions was to call for the full restoration of the military.)

The US occupation also increased the extraction of wealth from Haitian peasants, who in the late 1800s were well-off compared to the rest of their Latin

with economic prospects in the countryside dire and Haiti's population cowed, multinational corporations could depend on a large compliant labour force. The export-processing industry expanded rapidly. During this time Jean-Claude 'Baby Doc' Duvalier succeeded his father when the latter anointed him president for life before passing away in 1971. With infrastructural investments and tax benefits he promptly began a concerted campaign to woo multinational corporations, which resulted in the rapid expansion of the export-processing industry. In the industry's factories people usually work – even today – from 6am to 5:30pm from Monday through to Saturday, and possibly for an additional nine hours on Sundays, too. Often the factories have no

'I am Toussaint L'Ouverture... I have undertaken vengeance. I want liberty and equality to reign in San Domingo'

pay France a huge indemnity for the loss of its colonial interests worth 150 million francs. The money went to the French government and, more perversely, to the former slave owners who lost property. It took Haiti until 1945 to finish payment (US banks took over the debt in 1922).

As for the US, they took almost 60 years to recognise Haiti's 1804 independence. Recognition however, didn't mean respect for its sovereignty. In his book *In the Shadow of Powers* Patrick Bellegarde-Smith explains: 'Between 1857 and the turn of the [19th] century, US warships successfully intervened in Haiti 19 times on behalf of American business interests.' And in the lead-up to WWI Haiti became just another pawn in the imperial games played out by the US, France and Germany.

Finally, in 1915 a US invasion culminated in a 20-year occupation of Haiti. During this period US policy helped to solidify the country's future. A 1918 law essentially granted corporations the right to turn the nation into a US plantation by allowing foreigners to purchase land – something that had been outlawed since

American counterparts. Coffee exports were taxed to pay off debts to US banks and other foreign creditors. So began a system in which agriculture received virtually no reinvestment. Historically in Haiti, around 80 per cent of government revenue has been drawn from peasant farmers, while some 90 per cent of government expenditures have been spent on the capital.

In 1934 the US withdrew from Haiti (it kept control of the national bank for a while longer) and handed over the reins of government to a clique who looted the country until 1956, when Francois 'Papa Doc' Duvalier staged a military coup. Duvalier set up the infamous *Tonton Macoutes* (or bogeymen) as a personal militia. They worked with the National Security Volunteers, an organisation made up of taxi drivers, voodoo priests and priestesses, the unemployed and others, to spy on and suppress the population.

By the early 1970s,

fire exits, clean rest rooms, safety equipment or properly lit work-stations. An employee of a sub-contractor of the US clothing corporation Cintas said: 'They lock the gates on us and sometimes put security guards out in front with rifles to prevent us from leaving. The supervisors yell and curse at us to finish our quota. My daily quota is sewing 90 dozen zippers on pants for 80 gourds (about \$2)... The factory gets so hot it is like working in fire. Inside the air is so hot and full of dust that I can't breathe: I put my handkerchief around my nose and continue working.'

The US supported the Duvaliers until their reign of terror ended in 1986, training and arming Haiti's military, and funnelling aid through Israel so as to bypass Congressional governance. The Duvaliers were followed by a violent succession of corrupt military rulers, coups, and one staged and one aborted election.

At the end of the 1980s there was, at last, a successful election.

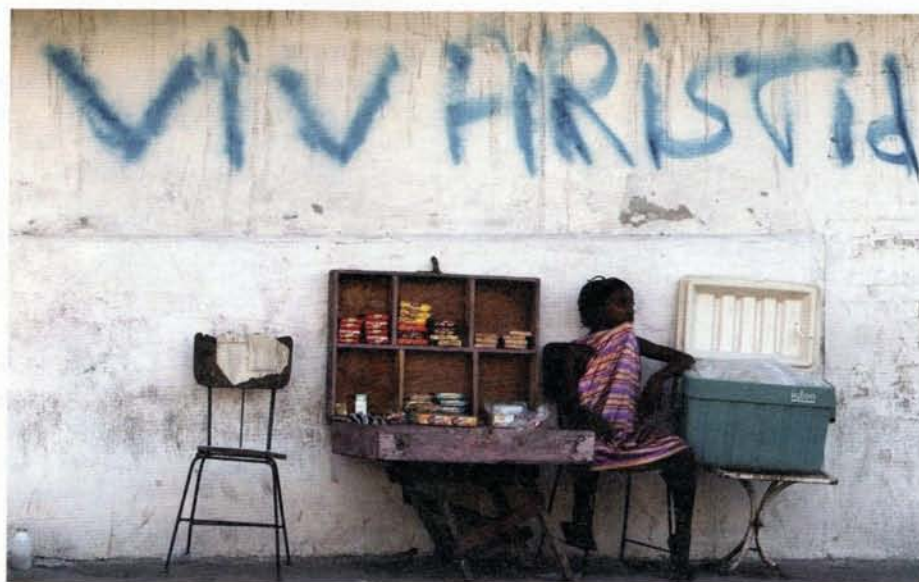


Haiti's peasants and slum-dwellers overcame exclusion and intimidation to organise themselves. In 1990 Aristide, a student of liberation theology, won an election with 67.5 per cent of the vote. During his campaign he rode around the countryside on a donkey so as to honour the peasants' way of life. Haiti's rural and poor majority had had their voodoo and Creole culture shunned by the nation's Western-oriented elite. But now the slightly built Aristide, who had survived several serious assassination attempts and the burning down of his church while he was preaching inside it, was president. He legalised voodoo, the religion practised by 80 per cent of Haitians, and elevated the Creole language from its underclass status.

Alarm bells went off among US politicians and the corporations they represent. George Bush Sr immediately moved to undermine the new Haitian government by withholding aid and supporting opposition groups. Nine months into his mandate Aristide was ousted by general Raoul Cedras - backed by the CIA (on the basis that these people were on the CIA payroll, US trained and currently living in Panama on a US expense account - but this is almost impossible to verify until classified documents are released) - who instituted a military regime of terror that led to the death of more than 3,000 people - most of whom were supporters of Aristide. Cedras had received his military training in the US.

The Organization of American States (OAS) announced an economic embargo against Cedras's illegal regime, which Washington promptly ignored by exempting many US firms from observing it. Former US president Bill Clinton secretly authorised the oil company Texaco to illegally ship oil to the junta. US-Haiti trade may have actually increased during Aristide's exile.

Forced by domestic pressure channelled through the Democratic Party's black caucus and international disgust over the massive human rights atrocities committed by the Cedras regime, Clinton eventually restored Aristide to power; but only on condition



that he adopted harsh neo-liberal policies and the programme of the overwhelmingly defeated pro-US candidate in the 1990 election. In addition, Washington dictated who Aristide appointed as prime minister. Consequently, import tariffs on rice were eliminated, which led to a massive increase in subsidised US rice exports to Haiti and the devastation of Haitian rice growers. The US also demanded the right to dump excess cheap chicken parts products on the Haitian market. As a result of losing further control over food sovereignty, Haiti's hunger rate is now topped only by Afghanistan's and Somalia's. The London-based Haiti Support Group recently reported: 'Haiti's debt to international financial institutions and foreign governments has grown from \$302m in 1980 to \$1.134 billion today. About 40 per cent of this debt stems from loans to the brutal Duvalier dictators, who invested precious little of it in the country. This is known as "odious debt" because it was used to oppress the people, and according to international law this debt need not be repaid.' Still the IMF and World Bank expect desperately poor Haitians to repay this money, come hell or high water.

In 2000 Aristide's Lavalas party took more than 80 per cent of the seats in local and parliamentary elections, and Aristide again won the presidency. In 10

multi-candidate contests in which Lavalas received the most votes of any candidate rather than a majority of votes, the party should, according to Haiti's constitution, have faced second-round elections. Instead, Lavalas simply took the seats. At the bequest of the US, the OAS objected to the election results - even though the method used to calculate them was public knowledge prior to the election. In fact, the same method had been used in previous elections. But, even though more than 3,000 other positions filled as a result of the voting in 2000 were judged to be fair, the Haitian opposition used the OAS's objections over the 10 irregular results to paint the entire election process as fraudulent.

The opposition exploited the OAS's partial criticisms of the 2000 local and parliamentary elections to boycott and taint Aristide's presidential victory later the same year, which it had no chance of preventing. In response, the new administration of George W Bush (and other governments) froze foreign aid to Haiti until new elections could be agreed upon. This effectively gave the opposition a veto over international aid, which is the lifeblood of the state budget in Haiti. Even after the 10 senators in question stepped aside, the opposition continued to reject new elections because they knew they couldn't win at the ballot box. With the country cut off from bilateral and multilateral financing,

Haiti's economy went into a tailspin, which spurred political discontent.

Some of the discontent was legitimate. For example, some reporters critical of the government were murdered and Aristide did not sufficiently condemn their killings. This encouraged the suspicion that the president was at best not too bothered by their deaths and at worst implicated in them. Aristide's party was afflicted by corruption (though nowhere near as much as previous Haitian administrations): some Lavalas officials had cars and houses that were impossible to afford on a public official's salary. But the total government budget in Haiti is little more than \$300m, only 10 per cent of which goes towards the country's police, courts and justice system, and, according to US State

Department figures, drug traffickers spend more than \$75m annually in bribes in the country. So, it is no surprise that corruption is widespread.

The Western media made much of the support of the *chimeres* for Aristide. The *chimeres* were usually poor street thugs from Port-au-Prince's sprawling slums, where squatters live in raw concrete cubicles with little electric power or clean water and no safety. The *chimeres* undoubtedly served political purposes for Aristide, yet they did not much resemble the organised paramilitary wings of previous Haitian regimes. In addition, Lavalas was supported by a huge segment of the Haitian population, and it would be a mistake to blame Aristide for the actions of individuals. There is little evidence to suggest that Aristide gave any direct

power derives from the use or the threat of force, it's impossible to govern without those alliances.'

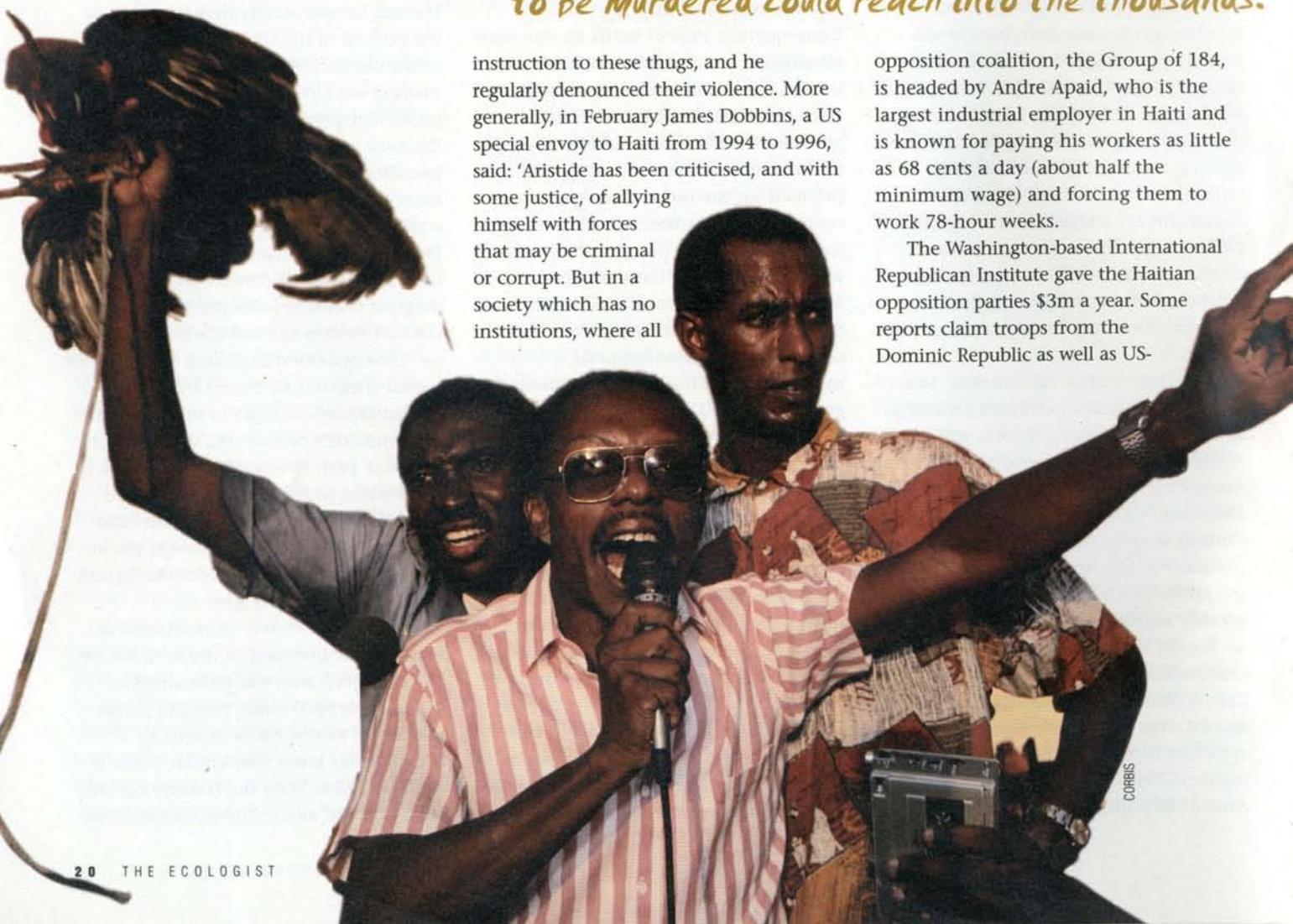
Moreover, the 'rebels' who ousted Aristide are a band of wanted murderers, former coup plotters and drug traffickers that include Louis-Jodel Chamblain – a former Haitian army officer who was sentenced in absentia to life in prison for the 1993 murder of key Aristide supporter Antoine Izméry. They also include Jean-Pierre Baptiste, a man serving a life sentence for murder in connection with a 1994 massacre of Aristide supporters. Baptiste escaped in an August jailbreak. Rebel leader Guy Philippe was formerly a brutal police chief who, according to Human Rights Watch, was trained by the US military as an army officer in Ecuador. One

Over the coming months the number of Aristide supporters to be murdered could reach into the thousands.

instruction to these thugs, and he regularly denounced their violence. More generally, in February James Dobbins, a US special envoy to Haiti from 1994 to 1996, said: 'Aristide has been criticised, and with some justice, of allying himself with forces that may be criminal or corrupt. But in a society which has no institutions, where all

opposition coalition, the Group of 184, is headed by Andre Apaid, who is the largest industrial employer in Haiti and is known for paying his workers as little as 68 cents a day (about half the minimum wage) and forcing them to work 78-hour weeks.

The Washington-based International Republican Institute gave the Haitian opposition parties \$3m a year. Some reports claim troops from the Dominican Republic as well as US-



trained Spanish- and English-speaking paramilitaries fought alongside the Haitian rebels. Haitian government authorities are said to have intercepted vans carrying new M-16 automatic rifles across the border from the Dominican Republic shortly after the US military delivered 20,000 M-16s to Haiti's neighbour. Regardless of where they got their weapons from, the rebels *did* march into the country from the Dominican Republic.

By that time the Bush administration must have already made up its mind that Aristide had to go. But on February 12 US secretary of state Colin Powell told the US Senate Committee on Foreign Relations: 'The policy of the administration is not regime change. Aristide is the elected president of Haiti.' Powell reaffirmed that five days later, when he said: 'We cannot buy into a proposition that says the elected president must be forced out of office by thugs and those who do not respect law and are bringing terrible violence to the Haitian people.' Yet by February 26, the secretary of state had changed his mind. '[Aristide] is the democratically elected president,' he said, 'but he has had difficulties in his presidency, and I think... whether or not he is able to effectively continue as president is something that he will have to examine.' The next day Powell said that Aristide should 'examine the situation he is in and make a careful examination of how best to serve the Haitian people'.

Once the rebels took Haiti's second city, Cap-Haitien, Washington sensed that the side it supported could win. It abandoned a call made by Caribbean and many European leaders for a political compromise – a compromise Aristide had already accepted.

The regional organisation Caricom, in contrast, suspended relations with Haiti and deplored 'the removal of Aristide' from office as setting 'a dangerous precedent for democratically-elected governments anywhere and everywhere'. France, Canada and the US thought differently. They set up a 'council of wise men' to establish an interim regime to put together a government of national unity in Haiti. Yet no one from the Lavalas movement was included. So, even though



Former chief of police and new rebel military chief Guy Philippe marches into the city of Gonaives, February 19, 2004.

the opposition to Aristide has never had the support of more than 15 per cent of the population it is effectively in control of the political process. And the rebels are not being disarmed. Over the coming months the number of Aristide supporters to be murdered could reach into the thousands. Morgue officials have already reported dozens of bullet-riddled bodies, and in Cap-Haitien numerous corpses have been seen in the bay.

A good first step towards clearing up the mess in Haiti would be to support the position of Caricom, which has not recognised the new interim government despite pressure from Canada, France and the US. The will of the majority should be respected, and Aristide should once again be restored to office.

Even in the face of extreme international pressure, Aristide's Lavalas movement did some good. More schools were built in 10 years of Lavalas rule than in the entire 200 years prior to Aristide taking office. In a cooperative effort with Havana, 800 Cuban doctors were brought to Haiti to work in rural areas, and 325 Haitians began receiving medical training in Cuba. Aristide also withstood objections from the American aid agency USAid and Haiti's domestic business class to raise the country's measly minimum wage.

Much more could be done if aid once again flowed into Haiti. An aggressive tree-planting programme could help break the spiral of deforestation and poverty. It wouldn't cost much and could provide much-needed jobs. Also, fuel alternatives, such as briquettes made from compressed recycled paper that burn more efficiently and cleanly than charcoal, are being developed. Agronomists believe Haiti's hills could green in five years if saplings were permitted to grow. But the environmental situation won't be genuinely improved until people have stable incomes. Poverty is so acute that people have little choice but to destroy their own long-term livelihoods to eat today.

Slavery was the source of many great fortunes in America and Europe. People and governments in those parts of the world owe at least something to the first descendants of African slaves who successfully threw off their shackles. As a bare minimum we must owe admiration, which means respecting the political choices of Haitians. We also owe a helping hand. We must find a way of rebuilding the Haitian economy. That would not cost a lot. Certainly, it would cost much less than a minor war. The cost of continued suffering and depredation in Haiti would be so much higher.

Yves Engler is a freelance writer



How well conn

- 1** What species is the nearest tree to your front door?
- 2** Is it native to your area?
- 3** How far away is your nearest mobile telephone mast?
- 4** How many of the items in your house could you make yourself?
- 5** Where is the nearest source of electrical power to your home?
- 6** What time did the sun rise this morning?
- 7** How many days till the moon is next full?
- 8** How many of the vegetables in your fridge could have been grown within 30 miles at this time of year (the ideal distance according to the National Association of Farmers' Markets)?
- 9** From where you are reading this, point north.
- 10** Name five resident birds in your area.
- 11** Name five migratory birds in your area.
- 12** Think of your most expensive possession. How many days would it keep someone living on a dollar a day alive?
- 13** When was your home built, who built it and where did the material come from?
- 14** What was on the site before your home was built there?
- 15** What is the name of the person that cleans your street?
- 16** What is the origin of your town/village/borough's name?
- 17** How many generations back in your family can you name an ancestor? And where did they live?
- 18** What is the source of your tap water at home? And what's in it?
- 19** How much water do you use at home each year?
- 20** When was the last time you borrowed something off a neighbour? And what was it?
- 21** How many bags of waste do you generate each year?

ected are you?

- 22 Where does your household waste end up?
- 23 What is the name of the person that collects your waste?
- 24 What percentage of that waste could be turned into compost?
- 25 What is the soil type in your area?
- 26 Name five edible plants in your region.
- 27 When are they best to eat?
- 28 From what direction do winter storms generally approach in your area?
- 29 What was the total rainfall in your area last year?
- 30 Where is the nearest bus stop to your house?
- 31 What spring wildflower is the first to bloom where you live?
- 32 When does it usually happen?
- 33 What is the furthest place you have walked to from your home?
- 34 When did you last talk to your postman / woman? And what is their name?
- 35 Where is your nearest nuclear power station? When did it last have an accident?
- 36 If the sea level rises 1 metre over the next 50 years, how much of your home will be submerged?
- 37 How far from your home is the nearest wilderness?
- 38 How many people do you know living within 500 metres of you?
- 39 When you flush the loo, where does the effluent end up?
- 40 What is your council tax spent on?
- 41 What was the predominant human activity in your area 100 years ago? 500? 1000?
- 42 Where is your nearest farmers' market and when is it held?
- 43 If money became worthless, how many days at home could you survive?
- 44 How many constellations can you see from your bedroom window? When did you last look?

'If we could think locally, we would take far better care of things than we do now. The right local questions and answers will be the right global ones. The Amish question, "What will this do for our community?" tends toward the right answer for the world.'

WENDELL BERRY, AMERICAN FARMER AND ESSAYIST

Deep in the Amazon rainforest, renegade logging firms are stealing the land of impoverished communities and stripping it of the trees on which the whole world depends. Greg Nasmyth boards a 700-tonne icebreaker to join a group of Greenpeace activists in their bid to stop them





Photographs and story by GREG NASMYTH

We were about eight kilometres into the rainforest when Marcelo called our motorcycle cavalcade to a halt. Other than a solid-looking stack of Jatoba logs lying to one side of the logging track, there appeared to be little reason why he should choose to stop at that point. The Jatoba, a huge canopy tree that can grow up to 30 metres in height, looked to have been recently cut. Its exposed, ruddy-brown heartwood was still raw, but no different to the hundreds of others we'd already seen since our arrival at the *Fazenda Esperanca* – an area set aside for controlled logging (a Forest Management Plan [FMP]) deep in the northern Brazilian state of Pará. It wasn't until Marcelo bounded up the stacked logs and signalled for us to follow him that things became clearer. Beyond the logs lay another track, the entrance to which someone had gone to great lengths to conceal.

'It's illegal,' announced Marcelo, pointing incriminatingly towards the deep, red, bulldozed scar disappearing into the forest beyond. 'Is it outside of the permitted logging area?' I asked; for once you enter the deep, all-enveloping canopy of the forest, there is no way in hell of knowing where you are. 'Yes,' he replied. 'This is public land. They have built the road so they can get to the trees.'

I'd first met Marcelo Marquesini two days earlier, when his helicopter landed on Greenpeace's 700-tonne icebreaker, the MV Arctic Sunrise. Newly appointed as chief inspector at the Brazilian Federal Environment Agency (Ibama), he is leading a clampdown

on illegal logging in the *Fazenda Esperanca*, whose 2 million hectares of verdant flood plain forest have since 2002 been ravaged by a rapid increase in deforestation.

Working in unison with Ibama, Greenpeace was in Pará to support a campaign by local communities for the creation of two 'extractive reserves' – the *Verde Pará* (Portuguese for 'Forever Green') and *Renascer* ('Reborn'). Originally proposed by Chico Mendes, the rubber-tapper and environmental leader assassinated by a Brazilian rancher in 1988, extractive reserves place forests under federal protection, conserving them for sustainable use by traditional communities.

Before heading up Ibama, Marcelo was himself a Greenpeace campaigner in the Amazon, and on the Arctic Sunrise's battleship-grey heli-deck he received a warm greeting from his old boss Paulo Adario – a charismatic ex-journalist from Rio. These two men have stepped into the firing line in a war being fought out for the ownership of the Amazon. On one side are settlers eking out a living in the forests and rivers of the rainforest; on the other, logging companies are eager to exploit the munificence of the region's timber.

The Arctic Sunrise had dropped her anchor somewhat provocatively opposite the frontier logging town of Porto de Moz. According to *State of Conflict*, Greenpeace's recent report on the Pará State logging industry, the town is run as a personal fiefdom by its mayor: Gérson Salviano Campos. Besides being mayor of Porto de Moz, Campos also owns the Grupo de Campos logging company, is part-owner of

Repeatedly accused of intimidation, beatings, assassination, timber industry appears beyond redemption.

one of the town's two sawmills, and is the largest cattle rancher in the region. Naturally, he is none too pleased at the prospect of the proposed reserves, which will severely limit his burgeoning businesses. Daily broadcasts from Radio Porto de Moz regularly denounce Greenpeace, advancing in the process a rather novel conspiracy theory that involves the British and Dutch royal families annexing the Amazon for their empires. Needless to say, the radio station is also owned by Campos.

The Arctic Sunrise's draught restricts her from entering the Amazon's shallower tributaries, so in order to get to the remoter communities on whose support the proposed extractive reserves rely Greenpeace chartered a river boat, the *Captain Dario*. I accompanied Adario up the Rio Guajara to the isolated community of Iprianga, where a meeting had been arranged to discuss the reserves. As we made our way up the winding river there appeared to be little evidence of deforestation: the forest lining the banks was intact for much of the two-hour boat ride.

Iprianga consists of a schoolhouse, a half-built Catholic church, and five or six houses, all of which are on stilts: it is situated in the *várzea*, the Amazonian flood plain, which between January and June remains pretty much permanently under water.

We went ashore and spoke with Jacinto Costa da Silva,

Iprianga's Catholic minister. Da Silva is also a fisherman, and was very keen to show us his nets. Several months before, trawlers had arrived from Pará's capital Belém and had quickly decimated the local fish stocks. Previously, the people of Iprianga, whose livelihoods depend largely on their ability to fish the Guajara, had taken the collective decision to use only nets whose mesh was large enough to allow juvenile fish to escape, thus ensuring a sustainable supply for the future. Da Silva was in no doubt of the need for the proposed reserves. 'First the *grillanos* (ice boats) came from Belém and took all our fish. Now the loggers come and take our forests,' he said, adding that his brother Massimo had recently been threatened when he tried to enter a nearby forest to hunt. 'They have cut a *pique* (a small boundary path), and posted signs warning people to keep out.' I asked him the name of the logging company. 'Madenorte,' he replied.

Based in Porto de Moz, Madenorte features prominently in *State of Conflict*. The company stands accused of falsifying land titles and imposing a regime of fear and violence against local community leaders. In its spare time, Madenorte produces sawn timber and plywood, 90 per cent of which is exported (55 per cent to the US and 30 per cent to the EU), principally through a company called DLH Nordisk. Madenorte also has contractual obligations to supply Campos. In recent years it has been fined US \$300,000 for systematic illegal logging.

The meeting to discuss the extractive reserves took place at Iprianga's schoolhouse. Da Silva was the first



The Fazenda Esperança's 2 million hectares of verdant flood plain forest have since 2002 been ravaged by a rapid increase in deforestation.

Based in Porto de Moz (above), the logging company Madenorte stands accused of falsifying land titles and imposing a regime of fear and violence against local community leaders. In recent years it has been fined US \$300,000 for systematic illegal logging.



illegal land grabs and human slavery, the Brazilian Western timber companies are complicit in these crimes

to arrive. The river outside was soon a mass of canoes and boats, with people travelling from outlying communities to attend. I sat and surveyed the scene from the *Captain Dario's* roof. A representative of the Rural Workers Union told me that without the presence of the *gringos* (namely Greenpeace), the meeting would never have taken place. When similar events were arranged in the past, they were broken up by gunmen in the pay of the timber firms.

If the loggers' weapon of choice is the gun, Greenpeace's is the global positioning system (GPS): they carry GPSs wherever they go, mapping and marking new or illegal logging sites. They have incorporated this data into a map, and when Adario stood up to address the crowd in Iprianga's schoolhouse he used that map to outline the loggers' rapid encroachment onto community lands.

Afterwards, he asked me how I thought he had done. I muttered something about him being a good speaker. Later I felt rather embarrassed when I recalled that Adario has a price on his head. Chico Mendes's assassination may have sparked an international outcry, but it certainly didn't stop the murders of anyone who objects to the destruction of the Amazon. Pará State has the highest rate of assassinations linked to land conflict in Brazil.

There were numerous complaints made against the loggers during the meeting. One woman was in tears as she recounted how gunmen attempted to evict her elderly mother from her home. The dispute over who actually owns the Amazon appears to be the central issue in the current conflict. Neither da Silva, nor any of Iprianga's other residents we spoke to, own title deeds to their land, and the loggers have proved themselves more than adroit at exploiting this legal loophole.

To fake authentic-looking land titles, papers are locked into boxes full of crickets or *grilos*. The crickets chew and foul the documents, making them appear older than they really are. (The process, known as *grilagem*, is so rife that the Brazilian government has launched a special parliamentary investigation into it.) Once they have established claims to land through these nefarious means, the loggers then go about evicting any settlers who may be living on it, or, as in da Silva's case, denying them access to the forests they hunt and forage in.

The day after the meeting in Iprianga, I finally got to see the wood from the trees; or, more precisely, the lack of it. The reassuring sight of mile upon mile of tree-lined bank on my trips up and down the Guajara had been grossly misleading. It's only when



you get up in the air that the extent of the clearance becomes apparent. Five hundred feet up, what pans out below is not mile upon mile of wall-to-wall tropical rainforest, but open pasture completely denuded of any tree cover.

It took a good 10 minutes flying at 100 knots plus before we actually came across any forest of note, and even then you could clearly see the logging tracks worming their way like parasites through the fleshy green canopy below. Worse, on the eastern horizon there was a dark pall of smoke sullyng the rising sun: a rectangle of rainforest, two or three square miles in size had been burnt to the ground.

Clear-cuts on this scale are only made possible by the loggers. They have the financial incentives and machinery to open up tracks into the forest's interior, and their logging rents open the canopy – exposing the undergrowth to the sun, which dries it to the point where it can be put to the torch.

Back at the *Fazenda Esperanca*, the Ibama technical team was still slowly working its way through rows of neatly stacked Jatoba, Ipe, Massaranduba, Marupa, Cedro, Pau Amarelo and Cambara – to name but a few species of the trees that grow in the plantation. The Ibama team was trying to work out which logs were taken from the illegal logging track. Only those would be impounded; the rest would be allowed to be barged down to the sawmill in Porto de Moz.

Ibama may be the legal guardian of the forest, but it is ill-equipped and under funded. Marcelo told me that inspections of authorised FMPs can take months or even years, and that there are currently only four Ibama officers for the whole of Pará State – an area twice the size of France. The current clampdown was only made possible by an extra raft of funding worth

Marcelo Marquesini (top), the new chief inspector at the Brazilian Federal Environment Agency (Ibama), is leading the clampdown on illegal logging. Working in unison with Ibama, Greenpeace was in Pará to support a campaign by local communities for the creation of two 'extractive reserves' to place forests under federal protection, conserving them for sustainable use by traditional communities.



Brazilian president Luis Inacio Lula da Silva has pledged to triple beef exports and increase national crop production to bring in much needed cash to service crippling external debt. This approach will inevitably increase the pressure on the Amazon rainforest.

appears powerless to prosecute its prescribed role. This was made abundantly clear by an incident that took place during my stay at the plantation.

One night on the Captain Dario we were surprised to witness the tugboat *Madenorte XXI* steam past us at full speed, pushing before it a barge laden with timber and plant machinery. It was highly suspicious, considering it was the dead of night and navigation of the river's channels is not something undertaken lightly in the darkness. The loggers were no doubt mindful that the most effective power Ibama has against them is the seizure of their bulldozers and trucks. Greenpeace immediately notified Marcelo, who, located further downstream, was in an ideal position to intercept the boat. However, Ibama lacks powers of arrest and had no state police with them at the time. So, the *Madenorte XXI* was allowed to continue unimpeded.

The Brazilians have an expression '*para Ingles ver*', which, translated literally, means 'for the English to see'. It dates back to the 19th century, when, under pressure from British abolitionists, Brazil passed laws outlawing slavery while continuing the practice regardless. Today, it means doing something merely for show, and is a

particularly appropriate description of the behaviour of DLH Nordisk, the largest exporter of Amazonian hardwood in the world.

Nordisk is part of the Danish DLH Group, and its website (www.dlh-nordisk.com) goes to great lengths to advertise its social, ethical and environmental values. I spoke to DLH's forests and environmental officer Eric Albrechtsen, and asked him how his company could reconcile these values with the situation in Brazil.

'We are not going to solve all the problems in Brazil, and we don't have any ambitions about that,' Albrechtsen told me. 'Does DLH have any dealings with Madenorte?' I asked. 'I know that we have been buying from them now and then, yes.'

Recounting the allegations I had heard at Iprianga schoolhouse, I asked whether Madenorte would be blacklisted by DLH.

'No,' Albrechtsen replied. 'What we are doing now is contacting all our companies, all our suppliers, and that will include Madenorte. I know them quite well, and I know their case quite well. I have also seen these negative stories about Madenorte.'

Corporate governance would seem to be an oxymoron. With their large-mesh nets, the humble da Silva and his fellow citizens of Iprianga have

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The Environment Council

taken more steps towards the survival of the Amazon as a distinct biological entity than DLH ever has – or, you suspect, ever will.

Brazil's environmental laws are, in the main, regarded as being far-sighted. But without proper enforcement they're meaningless. The Brazilian timber industry, which is repeatedly accused of intimidation, beatings, assassination, illegal land grabs and human slavery, appears beyond redemption. By default, Western timber companies that choose to deal with it are complicit in these crimes.

While the proposed extractive reserves would certainly buy the rainforest some time if they were established, the cold-blooded ruthlessness of the loggers means that it would not be long before they shifted their operations to another part of the Amazon. In 2002 the Brazilian space agency reported that its satellite monitoring showed deforestation in the Amazon had increased by 40 per cent from 18,000 to 25,400 square kilometres annually: an area roughly the size of Wales being laid bare every year. Even given the vast size of the Amazon, this is clearly unsustainable.

A total moratorium on all logging activities in the Amazon is needed *now*. This can only be

achieved if a mechanism is devised whereby Brazil's crippling external debt is alleviated. Currently, Brazil needs hard currency to fend off the World Bank, and Brazilian president Luis Inacio Lula da Silva has already pledged to triple beef exports and increase national crop production to bring in this cash. This approach will only increase the pressure on the Amazon rainforest, which is one of the last remaining wonders of the world. Timber is another hard cash earner for the Brazilian economy. The West needs to recognise the global significance of the Amazon rainforest in maintaining global climate and biodiversity. It needs to pay for the protection of the rainforest, which is, quite simply, priceless.

While heading back to Britain I happened across Marcelo in the canteen at Par a's Santarem International Airport. I asked him how the inspections were going. He replied that of the five FMPs inspected, three had been found not to be managing the forest. The other two were guilty of logging outside their designated area. Before he could go into greater detail, he was interrupted by his mobile. His ring-tone was the theme from *Mission Impossible*.

Greg Nasmyth is a freelance investigative journalist



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For 40 years Percy Schmeiser grew oilseed rape on his farm in the Canadian province of Saskatchewan. Usually, he would sow each year's crop with seeds saved from the previous harvest. In 1998 Monsanto took Schmeiser to court. Investigators employed by the company had found samples of its GM oilseed rape among Schmeiser's stock. Monsanto's lawsuit alleged that the farmer had infringed on the firm's patent. It even stated that Schmeiser had obtained Monsanto seeds illegally, going so far as to suggest that he might have stolen them from a seed house.

The corporation later admitted that Schmeiser had not obtained the seeds illegally, but said that wasn't important. What did matter, Monsanto argued, was that

The Ecologist: Your crops are now Monsanto's property. But can it actually take them away from you?

Percy Schmeiser: Yes. It can make me burn them, or destroy them by any other means. Or it can make me harvest them, in which case I have to give it all the seeds from my plants as well as my profits.

The judge also ruled that in Canada an infringement occurs when you use the patented seeds and spray them with their herbicides. I have never done that, but the judge ruled that was irrelevant.

I had eight different canola fields at the time, and I had seeds from each of them sent to the University of Manitoba to see how much of my pure seed was contaminated. The university's scientists found that half of my land had no contamination. But because I was a seed developer and a seed saver – using my seed from year to year, there remained the probability that there could be some of Monsanto's seeds even on the

Percy Schmeiser

the man that took on

it had found some of its canola plants in the ditch along Schmeiser's field (note that the plants were not found *in* Schmeiser's fields); that meant that the farmer had violated the firm's patent.

The judge agreed with Monsanto, ruling that 'the source of [GM] oilseed rape... is not really significant for the issue of infringement'. In other words, it was irrelevant how the patented canola plants got on Schmeiser's land. It could have happened as a result of cross-pollination or by seed movement caused by wind. (The latter is the biggest cause of contamination involving GM crops, and the farm next to Schmeiser's did grow Monsanto's crop.) The judge told Schmeiser that all his seeds, developed over almost half a century, were now the property of Monsanto. Schmeiser spoke to the founder of *The Ecologist*, Edward Goldsmith.

uncontaminated land. Even the profits from those lands had to be handed over to Monsanto.

Worse still I was not allowed to use my seeds again. They had to be handed over to Monsanto. The judge reminded me that in Canada patents have precedence over and above a farmer's rights, and he cited a federal law to this effect passed in 1991. Monsanto wants to see exactly how far it can go in controlling a farmer's use of seed.

That's what Monsanto wants?

Yes, it admitted it in court. It was a test case.

Has this ever happened to anybody else?

No. There are other cases pending until the outcome of my case.

And these new cases will use your case as a precedent?

Yes, it is a precedent-setting case.

You have said that Monsanto was harassing you in all sorts of ways – some of them quite illegally.

To give you an example: Monsanto has its own police force, many of whom are ex-Royal Canadian Mounted Police. They will go into any farmer's field that they choose and take away either seeds or plants in whatever state they happen to be – even against the farmer's will. In other words, they steal them. If a farmer catches one of them in his field and says, 'you are trespassing: you are stealing some of my crops', they will just laugh at him and say, 'if you take us to court, we will drag you through the court system and you won't have a farm left'. They now add, 'we will do to you what we did to Percy Schmeiser'. Every farmer knows what it has cost me in legal fees to stand up to Monsanto. Few want to spend \$100,000 or more and also put up with all the stress involved in fighting a powerful multinational. That's how Monsanto intimidates farmers.

Monsanto also prints advertisements asking farmers if their neighbours are growing its canola or

and if the canola field has died Monsanto knows that the farmer wasn't using its canola; If it hasn't died, it knows he was. The fact that it is illegal to spray from the air in Canada does not worry Monsanto in any way.

Monsanto is above the law?

Yes, but its case is strengthened by the contract it makes farmers who buy the seeds sign. It states that:

- (1) you cannot use your own seeds (in this way you sign your rights away);
- (2) you must always buy your seed from Monsanto;
- (3) you must buy chemicals from Monsanto;
- (4) you must sign a non-disclosure

Monsanto says 'If you take us to court, we will drag you through the court system and you won't have a farm left'

Monsanto

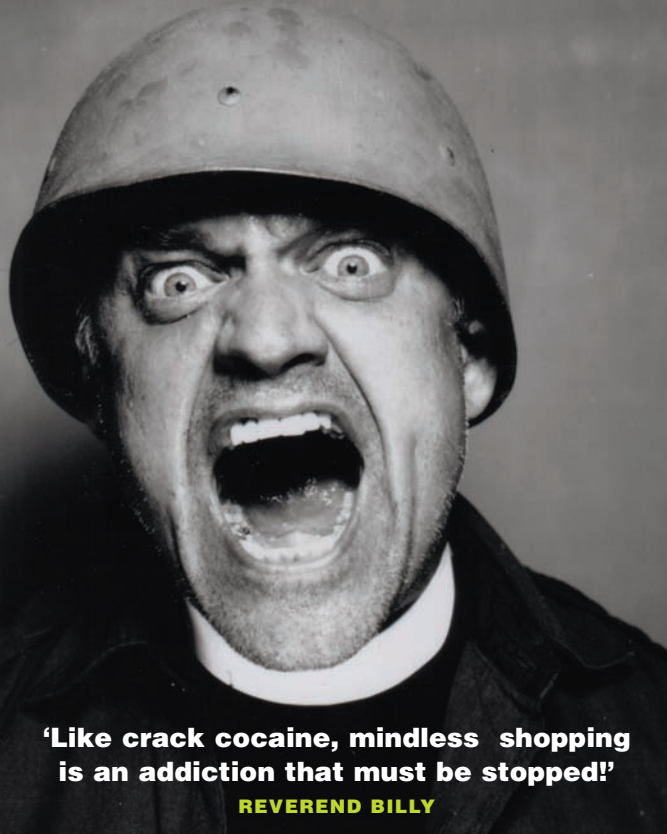
soya... They are told to inform on their neighbours, and if they do and Monsanto does not already know about the offence then it gives them free leather jackets, and it will harass, intimidate and threaten the offending farmer. As a result, farmers no longer trust each other, and are working together far less. What we are seeing is a veritable breakdown of our rural social fabric.

If Monsanto can't find anyone at home it will send farmers what we call an 'extortion letter' telling them that it has reason to believe that they might be growing GM canola without a licence and that it can ask them for \$100,000-\$150,000 compensation, and saying that they may or may not be taken to court. The letters also specify that farmers will be sued if they tell anyone about such threats. Every farmer who testified on my behalf at my trial had at one time received such a letter.

Alternatively, Monsanto will fly in a small plane over a farmer's canola fields and drop one of their Monsanto Round-Up Ready (Monsanto's pesticide) spray balls. It will then come back in about 10 days,



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Intellectual property rights now have precedence over private property law, the interests of the biotechnology companies have precedence over those of the natural environment, and profits have precedence over food production, food quality and public health.

statement so that if you happen to commit some violation of the contract you cannot say anything to anybody; (5) and you have to pay a \$15 an acre technology charge to Monsanto, and then you must also permit Monsanto's police to come onto your land with or without your permission.

Monsanto can go into your granaries, into your fields – do whatever it likes. It can demand your income-tax records, your farm records, the records of your children, etc, and actually do this for three years – even though you signed a contract for only one year. Monsanto's new contract also has a clause in it that if something goes wrong with your crop, with the seed or anything, you cannot sue Monsanto.

So why does anybody sign the contract?

A lot of people don't know what is really in it: it is in such small print that they never even read it. Also, before you sign it you are invited to a special Monsanto informational evening where you are wined and dined. A lot of people are also taken on fishing trips. Eventually, a lot of farmers signed up. Well, they didn't like it, and are tied up for three years.

Why has Monsanto transformed itself into such a ruthless company?

Monsanto wants complete control of the seed market because it knows that its patent on Round-Up ran out three or four years ago in both Canada and the US and that the sale of this herbicide represented 25 per cent of its world sales and 50 per cent of its profits. Anybody can now produce Round-Up and sell it. So the only way to control future sales is to control the world seed supply. In the last five years, Monsanto went out on a buying spree and spent over \$12 billion buying up seed companies around the world. It is now the world's second largest seed company.

So Monsanto is now just too powerful to oppose and can get whatever it wants?

Yes, it's got you. Intellectual property rights (the new patent laws) now have precedence over private property law, the interests of the biotechnology companies have precedence over those of the natural environment, and profits have precedence over food production, food quality and public health.

The Canadian government also insists that normal crops can co-exist with genetically-modified crops?

Right. Scientists at the University of Manitoba sought to establish the distance that genetically-modified pollen could travel. They found that wheat pollen would stay airborne for at least one hour. So they related that to wind speed. Canola pollen stays airborne for nearly three hours. If, when your pollen is in the air you get a whirlwind, or a 'desert devil', it can suck it over 23 miles.

When my lands were contaminated, it was not by the movement of pollen but by direct seed movement: the seed was blown off trucks. We have to cut our canola into swathes. You lay it like hay so that it dries. It's like tumbleweed: once it dries and you get a stronger wind it will shell out as it blows. There is direct seed movement caused by the wind, the birds, the bees, and so on.

To maintain, as the government does, that GM is safe so long as you keep the plots with the GM crops at a distance of 10 or even 50 metres away from your conventional crops is just a joke. Farmers know that you can't contain the pollen or the seed.

How about the field trials that they have done in the UK and elsewhere? What is their object?

They have carried out the same field trials many times in North America and other places. [For biotechnology] it is a good way of getting a toe in the door and then, of course, a foot.

But is the real purpose to contaminate neighbouring fields?

That's the object. There is no other reason for them.

Do the biotech firms believe that when they have contaminated all the world's crops they can go on getting royalties forever?

Exactly.

But no one is going to put up with that.

No, but the objective is to contaminate, and a short time ago



'To maintain that GM is safe so long as you keep the plots 10 or even 50 metres away from your conventional crops is just a joke'

Dale Adolphe, the head of the Canadian Seed Growers Association, which sells Monsanto's seeds, said: 'There is so much opposition in the world to any further releases of GM crops that the only way that remains to go ahead with them is to contaminate.' It's a hell of a thing to say. He admitted: 'The way we do this is to take people's choice away.'

I am told that you are thinking of going organic.

In Saskatchewan we use one third of all the chemicals – insecticides, herbicides and pesticides – in Canada, and we have the highest rate of cancer.

You told me that many of your colleagues have got cancer.

I don't have a single neighbour left that has not had cancer, and only one is still living. I am the only one who has not had it. The alarming thing is that in villages of 400 or 500

people it is not uncommon to find children – babies under the age of one year – having cancer, and not uncommon to find four or five babies with it in a single village.

Let's get back to your lawsuit.

Monsanto knows that my case has cost my wife and me about £200,000. We have mortgaged some of our land and our house and so on to pay our lawyers. Monsanto came after me: it said I was arrogant and stubborn because I wouldn't do what it wanted. It has sued me now for another \$1m for court costs. So I had to go back to Court and the judge awarded Monsanto \$153,000.

Our appeals are now going ahead. Going to the Supreme Court costs another £25,000. How can the average person pay all this money? If I hadn't had help from sympathisers from around the world, I couldn't have carried on. Monsanto knows that, and probably believes I will give up. But it has a surprise in store. I shall go ahead, come what may.

Schmeiser's case was heard before the Supreme Court of Canada in January. The case now covers more than just patent infringement and farmers' rights to use their own seed. It now includes the patenting of genes in regards to higher life forms. He is currently waiting for the decision, which is expected by the end of June.



Polio: the virus and the vaccine

A special report by Janine Roberts

There is a rarely mentioned epidemic raging in the world today, one that is crippling children in more than 100 countries. In extreme cases the disease starts with a fever, which is followed by vomiting, delirium and spreading pain. Within days of being infected, the motor-neurone cells in victims' spines cease to function properly. Pain intensifies as victims' limbs are paralysed. In the very worst cases, their chests are also paralysed, which prevents them from breathing. Even when the children recover, the illness often returns in later life. Health authorities say it has no cure. The number of cases increased by over 250 per cent worldwide between 1996 and 2003¹. It is a disease with a long history and many names. The condition's official name now is 'Acute Flaccid Paralysis' but it was once known as 'infantile paralysis'/'poliomyelitis' (polio for short). Some people called it 'thecrippler'.

Polio is a devastating disease; the preferred method for fighting it is vaccination. Yet there is a mass of historic evidence that suggests it is not caused by a virus but by industrial and agricultural pollution

A shot in the dark

During the first half of the 20th century infantile paralysis surged like a bush fire, moving from place to place, afflicting large numbers of children, but only in the industrialised West. Prior to these outbreaks it affected very few and was often called 'palsy'. In the 19th century scientists gave it the name 'poliomyelitis', referring to the inflammation of the grey nerves of the spinal column in cases of paralysis. Poisonous metals were suspected of causing this

disease, particularly lead, arsenic and mercury. In 1824 the English scientist John Cooke stated: 'The fumes of these metals, or the receptance of them in solution into the stomach, often cause paralysis.'²

In 1878 the link between palsy and toxins was strengthened when Alfred Vulpian found that dogs dosed with lead suffered the same damage in their motor-neurone cells as found in the human victims of infantile paralysis.³ The

Russian Popov discovered in 1883 that the same damage could be done with arsenic.⁴ This should have sent shockwaves through the medical establishment as the arsenic-based pesticide Paris Green had been widely used since 1870 to stop Codling moth caterpillars ruining apple crops. But strangely it didn't.

In 1892 Paris Green was replaced in Massachusetts by the more toxic pesticide

During the first half of the 20th century infantile paralysis surged like a bush fire, moving from place to place, afflicting large numbers of children... in the industrialised West.



lead arsenate. Two years later the first recorded epidemic of infantile paralysis struck in Massachusetts' neighbouring state of Vermont. The outbreak was investigated by Dr Charles Caverly, who reported that it was probably caused by a toxin rather than a micro-organism. Caverly said: 'It usually occurred in families of more than one child, and as no efforts were made at isolation it was very certain it was non-contagious.'⁵

Lead arsenate rapidly became the principal pesticide used on fruit and berries throughout the industrial world. In 1907 calcium arsenate was introduced for use primarily on cotton crops and in cotton mills. A year later 69 healthy children suddenly fell paralytically ill in Massachusetts. They lived in a town with

THE LINKED HISTORIES OF POLIO AND PESTICIDES 1	1873	First pesticide sprayer patent granted		1894	The first polio epidemic in the state of Vermont		1897	The permitted milk additive formalin (diluted formaldehyde) is discovered to cause paralysis		1903	The UK sets limits for the use of lead-arsenic pesticide		1907	Calcium arsenate introduced as a pesticide for cotton		1908	Carl Landsteiner (below) and Erwin Popper claim the discovery of the polio virus
		1894	US state of Utah orders spraying of fruit trees with chemical pesticides														

Polio: are pesticides to blame?

Endocrinologist Morton Biskind said the spread of polio after WWII was caused by the 'most intensive campaign of mass poisoning in human history' – the spraying of some 3.1 billion pounds of pesticides

The first epidemic of poliomyelitis in a tropical nation was contemporaneous with the introduction of the pesticide DDT in that country. Towards the end of WWII, US military camps in the Philippines started to be sprayed daily with DDT in order to kill flies.²⁹ Writing in *The Journal of the American Medical Association* two years after the war, Albert Sabin reported that poliomyelitis became, after conflict, the major cause of death among the troops stationed at these camps. And yet unsprayed neighbouring populations were not affected by the disease.³⁰ At the end of the war, the US military's stocks of DDT were sold onto the public – despite the gravest warnings from establishment scientists.

In 1944, the US federal research centre the National Institutes of Health reported that DDT damaged the same part of the spinal cord (the anterior horn cells) that is damaged in infantile paralysis. Endocrinologist Dr Morton Biskind further



continued page 39

three cotton mills, and in settlements downstream from those mills. Nearby there were also orchards on which lead arsenates were almost certainly in use. They were also living only a short distance downstream from the location of the Vermont outbreak.

A further epidemic in Massachusetts in 1908 caused enormous public concern, but, despite the evidence that exposure to toxins might have been responsible, the investigating health officials overlooked the newly introduced pesticides; they thought them essential to their war against viruses and bacteria – and to the financial health of the agricultural industry. Thus, the children paralysed in Massachusetts were not treated with toxin antidotes to see if these would benefit them. Instead, parents were advised to keep their children clean while the scientists, distracted by the then brand new theory that all epidemics had to be caused by infectious germs, looked for the virus 'responsible'.

In 1908 two scientists working in Austria, Karl Landsteiner and Erwin Popper, reported that they might have found an 'invisible virus' that had caused these epidemics. They had made their discovery, they claimed, after making a suspension in water of minced diseased spinal cord from a nine-year-old victim of infantile paralysis. They had tested this noxious suspension by injecting one or

two cups of it directly into the brains of two monkeys. The monkeys fell severely ill (as might have been predicted). One died and the other had its legs paralysed. The scientists then dissected the monkeys and found damage in their central nervous tissues similar to that found in human cases of infantile paralysis.⁸

Today the World Health Organisation (WHO) still credits Landsteiner and Popper as having found the poliovirus with this experiment. Why it does so is inexplicable. The fluid they injected must have contained much human cellular debris, any toxins involved in the child's illness, and probably several kinds of viruses. So, it was no wonder the monkeys fell so desperately ill. Such a soup could in no way be considered an 'isolate' of the tiny organism we now call a virus. It was also strangely non-infectious for a so-called virus, for the monkeys were not paralysed when made to drink it or when one of their limbs was injected with it, nor did they pass it on to other monkeys. The experiment, in fact, shed no light on what had paralysed the monkeys, and for that matter, the children.

Nevertheless, the following year Simon Flexner and Paul Lewis of the illustrious Rockefeller Institute for Medical Research in the US 'proved' a similarly made noxious soup was 'infectious' by injecting it into the brain of one monkey. They then extracted some fluid from its brain, injected this

Milk paralysis

Many infantile paralysis outbreaks between 1905 and the 1940s would be linked by doctors to supplies of contaminated milk, including one in 1927 in Broadstairs in Kent. The Broadstairs outbreak was fairly typical. It affected institutions such as boarding schools that had little contact with each other, but which took milk from a common source.⁶ These epidemics ended when suspected milk supplies were stopped. Lead arsenate was being used as a cattle dip, but the formaldehyde that used to be added to milk to prolong its 'shelf life' may also have been responsible. (In 1897 *The Australian Medical Gazette* reported that formaldehyde in milk had caused several cases of paralysis.)⁷



1908 Polio epidemic in Massachusetts

1917 Polio epidemic in New York State

1925 UK threatens ban on US apples treated with cyanide pesticide



‘Especially those who ate the most fresh fruit’

The use of lead arsenate to spray orchards was widespread in 1930s America. Orchards were sprayed 10 or more times a year. Spraying occurred in summer, the season when children went down with infantile paralysis. Many researchers associated outbreaks of the condition with fruit supplies. The UK threatened to stop imports of US apples unless the pesticide level was cut. Tobacco and other crops were also sprayed. Today the soil in heavily sprayed areas remains so polluted that it is a major problem to housing developers: in many places the soil has to be completely removed.



into another monkey, and so on through a series of monkeys, paralyzing all of them in the process. Flexner and Lewis reported: ‘We failed utterly to discover bacteria... that could account for the disease [paralysis]... The infecting agent of epidemic poliomyelitis [probably] belongs to the class of the minute and filterable viruses that have not thus far been demonstrated with certainty under the microscope.’⁹ In other words, we’ve injected a cocktail of viruses, cellular debris and DNA into a series of monkeys, and we believe that a virus, not yet identified within this noxious cocktail, is responsible! The procedure of Flexner and Lewis was just as dubious as their conclusion: they took no account of the contaminants in their mashed-up soup; they presumed what happened in monkeys would be replicated in humans; and surprisingly, given the evidence around at the time, they didn’t inject samples of cyanide or lead into the brains of monkeys to see if they also caused paralysis. In 1910 neonatologist L Emmett Holt reported: ‘Even five years ago if anyone had suggested that the disease under discussion was an

infectious or contagious one, it would have been looked upon as a joke.’¹⁰

Nevertheless, this crude science inspired a 40-year hunt for the infantile paralysis virus. All kinds of biological materials – spinal cord, brain, faecal matter, even flies – were ground up and injected into monkeys’ brains to try to induce paralysis.¹¹

Meanwhile, US president Franklin D Roosevelt, himself a victim of infantile paralysis, set up in 1938 the National Foundation for Infantile Paralysis (NFIP). The NFIP promptly decided that there was no cure for those already suffering from the disease. It would also refuse to examine reports of successful treatment involving antidotes against toxins. It instead focused on raising money for vaccine research by releasing stories about the horrors of infantile paralysis. The worst cases were indeed frightening: some victims had to be placed in ‘iron lungs’ to help them breathe.



This advertising drive was sensationally successful, effective both in raising money and in spreading fear of

the poliovirus, especially among parents. But the authorities had little immediate help for them. They simply advised them to keep their children clean, away from places where infections could be passed on, such as public swimming pools, and to kill flies. The zeal of the parents was encouraged by advertisements showing giant flies attacking children. While the poorer families responded by swatting flies and using more soap and water, the more affluent tried to turn their homes into sterile zones by constantly spraying them with insecticides. But these sprays proved useless. And what was even more peculiar was that doctors reported the disease was affecting mostly the children from better-off families – especially those who ate the most fresh fruit. People thus started to call the disease ‘the middle-class plague’. All this was so utterly inexplicable that parents were left feeling helpless and despairing.

By the end of the 1930s the vaccine scientists had tested various ‘viral isolates’ from infected monkey brains, but when these isolates were fed orally to monkeys the animals did not fall ill. This was most puzzling. The monkeys produced antibodies afterwards, so some virus must have harmlessly infected them. The only way the scientists found they could create a version of infantile paralysis in the monkeys was by injecting large quantities of the ‘virus’ suspensions directly into their brains.

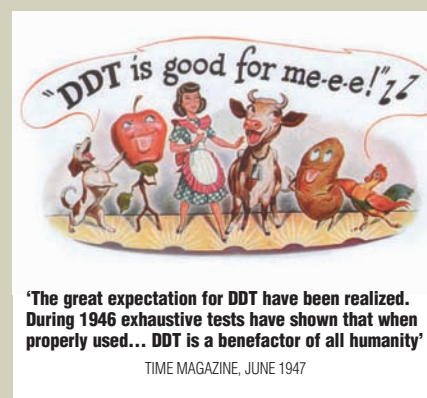
In 1941 the work of the virus hunters received a potentially fatal setback. Dr John Toomey reported in *The Journal of Pediatrics* that it was not passed between individuals ‘no matter how intimately exposed.’¹² If the disease was non-infective, then it could not be caused by a virus and thus a vaccine would not work.

Other holes started to appear in the virus theory. During WWII army doctors found widespread immunity to the suspected poliovirus, and no evidence of infantile paralysis epidemics, in the

<p>THE LINKED HISTORIES OF POLIO AND PESTICIDES 2</p>	<p>1933 Failed polio vaccine in St Louis: 100 of those vaccinated die</p>	<p>1938 President Franklin D Roosevelt's Foundation for Infantile Paralysis set up</p>		<p>1941 Paralytic polio is shown not to be infectious; US army doctors report that there are no polio epidemics in the Third World</p>	<p>1944-1947 DDT found to cause the same damage to motor-neurone cells as is seen in paralytic polio</p>	
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Polio: are pesticides to blame? (cont.)

described in 1949 how DDT caused 'lesions in the spinal cord resembling those in human polio in animals'. He commented: 'Despite the fact that DDT is a highly lethal poison for all species of animals, the myth has become prevalent among the general population that it is safe for man in virtually any quantity. Not only is it used in households with reckless abandon so that sprays and aerosols are inhaled, the solutions are permitted to contaminate skin, bedding and other textiles.' The same year in Germany, Daniel Dresden found that acute DDT poisoning produced 'degeneration in the central nervous system' that seemed identical to that reported in severe cases of infantile paralysis.³¹



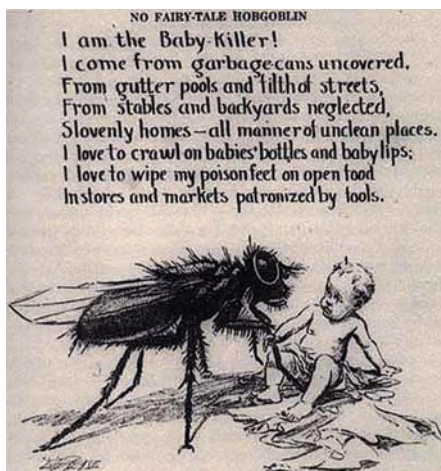
Yet DDT was used to replace lead arsenate as a pesticide in fruit farming and with which to wash dairy cows. Heavy levels of DDT were soon reported in milk supplies. The organochlorine pesticide DDE (which is several times more dangerous than DDT) was also widely used in the US. Both were known to penetrate the blood-brain barrier that protects the human brain from viral invasion. Housewives were actually advised to spray DDT to stop infantile paralysis. Children's bedrooms had wallpaper pre-soaked in DDT. Epidemics of infantile paralysis started to occur every year.

By 1952 the number of cases of infantile paralysis was three times higher than the figure for 1940.

Biskind treated over 200 patients affected with such neurological disorders. He found that many of these patients recovered when foods contaminated with pesticides were removed from their diets; this applied

Middle East, Asia and Africa. In Turkey they found people who called infantile paralysis 'the American disease'. The doctors were surprised: immunity to the virus presumably meant that it had infected the population. So, how come it caused no epidemics in these countries?

However, the scientists racing to find a vaccine were so convinced that a virus was to blame that they effectively disregarded any evidence to the contrary. Among these it seems was Jonas Salk. In 1947 he found among the debris and toxins of 'viral isolates' from monkey brain experiments what he believed to be the poliovirus. Although he had not proved that this could cause polio in humans, he hoped he could use it to make a vaccine.



But the highly respected bacteriologist Claus Jungeblut thought otherwise. He observed that such 'viral isolates' did not create in monkeys the same disease as found in human cases of infantile paralysis.¹³ He concluded: 'The highly specialised ... virus which has been maintained in the past by intra-cerebral passage in rhesus monkeys is more likely a laboratory artefact than the agent which causes the natural disease in man'. In other words, the 'virus' found by the vaccine scientists probably did not exist in the wild but was a product of their experiments.¹⁴ If he were right, the consequences were vast. It could mean that the 'isolates' used by Salk to make a vaccine injected into over a hundred million people, had no relationship to the human disease it was supposed to counter.

Then, in 1948 Gilbert Dalldorf and Grace Sickles of the New York Department of Health triumphantly claimed that they had found the virus in the excrement of paralysed children.

They had spun a sample to remove larger particles, diluted it and injected it into the brains of mice. The animals unsurprisingly became dangerously ill and paralysed.¹⁵

The news of Dalldorf and Sickles' experiment was nevertheless welcomed by the vaccine scientists. Up to now they had struggled to find the poliovirus in human spinal tissue. It would now be vastly easier to collect the poliovirus they believed they had identified from human excrement than from human spinal tissue. But why was it so hard to find it in the nerve cells in the spinal column that it supposedly damaged - that is where it had to be, if it really were the

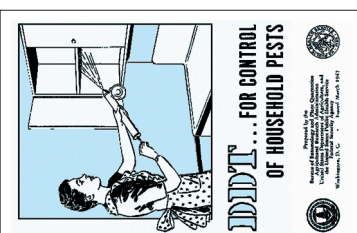
cause of infantile paralysis?

In 1951 they discovered a reason why. Quite simply, it was not always there. Instead a different virus might be present eg the Coxsackie virus. This news was grimly received. Their planned polio vaccine would not work against the Coxsackie. There was 'some feeling of dismay ... [this] added one more problem to the nebulous conditions surrounding poliomyelitis... the more we learn about poliomyelitis, the less we know,' wrote AL Hoynel in the journal *The Medical Clinics of North America*. A *Lancet* editorial in the same year said this discovery brought 'a crop of new snags' to developing a vaccine.

Soon they discovered that it was possible for many different viruses to be present in these damaged nerve cells. If toxins caused the disease, this would be easy to explain. Many kinds of viruses are attracted to toxin-damaged cells. More bad news for the polio vaccine scientists. The public expected them to deliver

1946 US troops in the Philippines suffer a polio epidemic after DDT is used against flies on US army bases; neighbouring civilian populations are unaffected

1946 Lead-arsenate pesticide is phased out and replaced in civilian use by DDE and DDT



The case against the polio virus

When it was eventually photographed using an electron microscope, the poliovirus was shown to be tiny: an elegant sphere made up of triangular equal-sized sides, and in all just 25 millionths of a millimetre across. Is this ‘poliovirus’ the cause of infantile paralysis / polio? Or is it an ancient and harmless companion of the human race? All the evidence suggests the latter:

1 It had been around humans for thousands of years and in nature only reproduces in human throats or guts. Such viruses are normally totally harmless, since we have become adapted to them and they to us. It lived in the dirt ingested by human infants, and did not hurt them. Instead it helped activate their immune system, giving them a stronger resistance to illness.

2 If it were the dangerous pathogen that causes infantile paralysis, then it would be more common in countries with infantile paralysis epidemics, and less common in countries with no infantile paralysis epidemics. But the reverse is true.

3 To say it causes polio may violate one of the most famous laws of virology. These are called the Koch Postulates. They

set up the rules for declaring a disease to be caused by a virus. The 1st Postulate states that the virus must be found in every case of the disease as defined by its symptoms – but the poliovirus was not always present in such cases of poliomyelitis.²⁵

4 It widely infects children without causing them any illness. The Koch Postulates lay down that if it causes a disease, it should do so whenever it infects.

5 It seemed mostly to infect the cleanest children of middle-class parents. Infectious viruses are not supposed to behave in this way: they are indiscriminate as to social class, and do not thrive in conditions of good hygiene.

The US Centers for Disease Control and Prevention (CDC) has published a theory to explain this extraordinary behaviour. The

children of US middle-class parents were uniquely liable to fall ill with infantile paralysis because in their infancy parents kept them away from the dirt in which the virus lives. This meant these children were not infected when it was safest – while protected by their mothers’ milk. Once again, this theory contradicted everything known about infectious illness: good hygiene nearly always stops epidemics; with infantile paralysis, the CDC argued, good hygiene was the cause.²⁶

Furthermore, the CDC’s theory was based on the assumption that working-class children are uniquely exposed to ordinary dirt. Yet surely middle-class children also go out into the garden? The theory was also conceived without checking medical reports on the early epidemics of infantile paralysis. Referring to a 1908 epidemic in

vaccines that would stop the epidemics, but it was now evident that their polio vaccines would, at the very best, only prevent some cases, the ones with their poliovirus present.

And yet despite all the doubts and contrary findings, the vaccine research continued. In 1949 John Enders and Thomas Weller discovered how to grow the poliovirus in cell cultures, rather than only in the brains of living animals.¹⁶ This made possible the commercial production of virus-based vaccines. Then it was discovered how to grow their poliovirus on cheap monkey kidney and testicle cells.¹⁷ Monkeys soon became the

‘growing bed’ for the virus. They would be trapped, imported and slaughtered by the hundreds of thousands to make the polio vaccines, and are still caught in the wild today for the purpose of testing the UK vaccine.

By 1954 Salk had his polio vaccine ready for testing. (He confessed to ‘sacrificing’ some 17,000 monkeys in the process of developing it) He based the vaccine on his theory that children would gain immunity to living poliovirus if dead poliovirus were injected into them. He hoped our sensitive immune system would react by creating antibodies to these

viral corpses that would also protect us against living wild poliovirus. To kill the virus he poisoned it with formaldehyde before putting it into his vaccine.

In 1954 he tested this concoction on more than 400,000 US children. It was reported afterwards that ‘only’ 112 of the children who received three jabs of his vaccine contracted polio within the next few months. Salk judged his experiment a success.¹⁸ But his safety-test results omitted all cases of children who were paralysed after one or two doses of the vaccine – or within two weeks of taking the third dose. These were counted as cases of polio in the non-vaccinated

THE LINKED HISTORIES OF POLIO AND PESTICIDES 3	Dalldorf and Sickles claim to have isolated the polio virus from the excrement of polio victims	The US Food and Drug Administration reports on damage caused by DDT	Gamma globulin, after having been injected into thousands, fails as a prophylactic against polio		A US Public Health Service report criticises DDT	New York stops vaccinating for whooping cough and smallpox in the summer polio season, as the vaccines are found to make children more susceptible to paralysis
1948		1950	1951	1951	1951	1951

particularly to milk products. Biskind found high concentrations of DDT in butter purchased in New York. In 1949 he wrote: 'Though it was originally observed in 1945 that DDT is absorbed through the skin, accumulates in the body fat and appears in the milk of animals, it has recently become almost universal practice to spray cattle with DDT... Although young animals are much more susceptible to the effects of DDT than adults, so far as the available literature is concerned, it does not appear that the effects of such concentrations on infants and children have even been considered.'³²

Despite the official complacency about substances like DDT and DDE, a few doctors did consider the effects of toxins. Some reported successfully treating paralysed patients with dimercaprol, an anti-toxin that is still used in hospitals since it 'binds' heavy metal poisons such as arsenic and lead and renders them non-toxic. In 1951 Dr Irwin Eskwith reported successfully using dimercaprol to cure a child suffering from bulbar paralysis, the most severe form of infantile paralysis.³³ A medical journal also reported that 17 acute cases of polio were cured after treatment with very large doses of another anti-toxin – ascorbic acid.³⁴

A year earlier investigators from the US Food and Drug Administration (FDA) had announced: 'The finding of [liver] cell alteration at dietary levels as low as five parts per million of DDT, and the considerable storage of the chemical [in body fats]... makes it extremely likely that the potential hazard of DDT has been underestimated.' Polio epidemics had been becoming more and more severe from 1945 onwards. Biskind reported that this was due to the 'most intensive campaign of mass poisoning in known human history', the spraying of some 3.1 billion pounds of pesticides.³⁵

In a 1953 paper published in the *American Journal of Digestive Diseases* Biskind said: 'It was known by 1945 that DDT is stored in the body fat of mammals and appears in [their] milk... Yet, far from admitting a causal relationship [between DDT and polio] so obvious that in any other field of biology it would be instantly accepted, virtually the entire apparatus of communication, lay and scientific

Massachusetts, US health inspector Herbert Emerson noted that most cases occurred in households with no sewers and low hygiene. If the CDC's theory was sound these children would have had antibodies and been immune to polio. In reality, they were the ones who fell ill.

6 If guilty of causing paralysis, it would have to travel from the gut through the formidable blood-brain barrier that protects our brains and spinal cords. We still have not observed it doing this, despite many decades of intense research.

7 It is rarely found in human blood – the easiest route from the gut to the blood-brain barrier. Yet this is where Jonas Salk's vaccine was supposed to intercept it.

8 It has never been observed reproducing in victims' motor neurone cells.²⁷

AN ALTERNATIVE PROPOSITION

Poliomyelitis researcher Dr Ralph Scobey suggested in 1954 a reason

why viruses might be found on damaged motor neuron cells in cases of infantile paralysis. He posited that the body itself might activate or produce these viruses, perhaps when under threat or to clean up cellular damage. While 'the fundamental cause of human poliomyelitis appears to be a poison or toxin', Scobey said, 'the virus is synthesised or activated within the human body as a result of the poisoning'. He suggested that the virus might remain 'dormant' within cells until something activates it. We now know that the poliovirus can be dormant. It is also widely known that toxic-damaged tissues attract viruses. One of the standard tests for toxins, the Ames Assay, utilises the fact that if viruses mutate and multiply in the presence of a certain amount of a chemical then that amount is dangerously toxic. Scobey went on to list anti-toxins that had proved effective in curing polio, citing 11 scientific papers written between 1936 and 1949.²⁸

control group and thus in my view cast doubt on the validity of his results, for it made it impossible to tell just what impact his vaccine had had. It could have been that many of the cases of polio in the control group were caused by one dose of his vaccine – there was nothing in the published accounts I have seen to say that this was not so.

Salk claimed that his vaccine protected '30 to 90 per cent' of those who received it (a remarkably vague statistic). But more than 60 per cent could have been immune already, at least according to the theory of the US federal agency the Centers for Disease Control and Prevention (CDC)



The polio virus necessary for the vaccine was grown on the kidneys of wild-caught monkeys.



1952 The largest of the polio epidemics kills 3,000 people

1952 US calves found to be paralysed by organochlorines; restrictions imposed on pesticides



that working-class children were already immune as a result of exposure to the virus in dirt. It is not known if Salk ever checked to see if children were already immune before he vaccinated them, but Hilary Koprowski reported in 1957 that the inhabitants of the Congo were 85 per cent immune before they ever saw a dose of polio vaccine. (Amazingly this didn't stop Koprowski. He went on to uselessly administer to them hundreds of thousands of doses of his experimental vaccine.)

The Salk vaccine could have been derailed if a 1954 report by Dr Bernice Eddy, the scientist in charge of the US government safety-testing lab, had been taken seriously. Eddy stated that when she tested the Salk vaccine it caused severe paralysis in monkeys. She photographed the diseased monkeys, took these photos to her boss – and was reprimanded as an alarmist. She was not sure what it was in the vaccine that caused the paralysis: was it a virus, cellular debris or a toxin? Something

Manchester Guardian, Alistair Cooke wrote: 'Nothing short of the overthrow of the Communist regime in the Soviet Union could bring such rejoicing to the hearts and homes in America as the historic announcement last Tuesday that the 166-year war against poliomyelitis is almost certainly at an end.'

Medical Fraud

The triumph following the launch of the Salk vaccine was short-lived. The medical historian Dr M Beddow Baily recorded what happened next: 'Only 13 days after the vaccine had been acclaimed by the whole of the US press and radio as one of the greatest medical discoveries of the century, and two days after the British ministry of health had announced it would go right ahead with the manufacture of the vaccine, came the first news of disaster. Children inoculated with one brand of the vaccine had developed poliomyelitis. In the following days more and more

cases were reported, some of them after inoculation with other brands.'¹⁹

Within two weeks of the launch the number of cases of polio in vaccinated children had nearly reached 200. This created near panic in the White House. President Eisenhower had publicly endorsed the vaccine at its launch, so he sent the US health secretary Oveta Hobby to make it very plain to the Surgeon General that the president needed to be spared the embarrassment of further such cases.

On 8 May 1955 the Surgeon General suspended the entire US production of the vaccine. After hurried meetings between Salk, manufacturers and the surgeon general, distribution of the vaccine was resumed five days later, with new regulations in place to ensure better standards in the vaccine laboratories. The general consensus was that these cases had been caused by viruses in the vaccine that had survived the formaldehyde, despite evidence that

repeated injections can cause paralysis.

However, despite

The first news of disaster came only 13 days after Salk was awarded a Congressional Medal in 1955 with his vaccine being acclaimed as one of the greatest medical discoveries of the century.

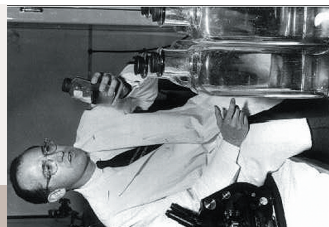
quite deadly was clearly present. (One year later, after her warnings proved true, she was stopped from working on polio.)

On April 12 1955, Salk's polio vaccine was pronounced totally safe and effective in providing complete protection against poliomyelitis (infantile paralysis), when it was launched by the National Foundation for Infantile Paralysis before an invited audience of 500 doctors and 200 journalists. The launch ceremony was relayed by closed-circuit television to some 54,000 doctors in cities throughout the US and Canada. Salk was immediately awarded a Congressional Medal by US president Dwight Eisenhower. Church bells were rung in celebration of Salk's victory. In *The*



CORBIS

THE LINKED HISTORIES OF POLIO AND PESTICIDES 4
<p>1953 The incidence of polio starts to decline sharply</p>
<p>1953 Salk (below) develops a vaccine using dead polio virus utilising some 17,000 monkeys</p>



<p>1954 Eddy tests Salk's vaccine on monkeys, which then suffer paralysis</p>
<p>1955 The Salk polio vaccine launched; Salk awarded Congressional Medal in the US</p>



these new regulations, four months later more than 2,000 cases of infantile paralysis were recorded in Boston, despite the vaccination of 130,000 children in the city. The previous year it had seen only 273 cases. The number of cases doubled in vaccinated New York State and Connecticut, and tripled in Vermont. They increased by five times in both Rhode Island and Wisconsin. Many were paralysed in the injected arm.

It seemed that the vaccine would soon be totally discredited. So, to protect the President, Salk, the vaccine manufacturers and themselves from the humiliation of an unmitigated failure, the US health authorities had to dramatically slash the incidence of poliomyelitis. They managed this by simply changing the way they recorded the incidents of poliomyelitis. It worked like this:

Prior to 1956, the authorities recorded a patient as having paralytic polio (infantile paralysis) if they suffered from paralytic symptoms for 24 hours. After 1956 patients had to have these paralytic symptoms for at least 60 days to be

counted as having polio. As many people recovered within 60 days, this measure alone dramatically cut the official number of cases. This 'drop' in polio cases was publicly credited to the vaccine. Furthermore, all cases of polio occurring within 30 days of vaccination (such as the first 200 cases that had so alarmed the White House) were in future not to be blamed on the vaccine but to be



In 1955 Salk's polio vaccine was pronounced totally safe and effective in providing complete protection against poliomyelitis

recorded as 'pre-existing'. But Salk continued to worry. Despite its regulatory and statistical 'success', the reputation of his vaccine was plummeting. In June 1955 the British doctors' union the Medical Practitioners'

Polio: are pesticides to blame? (cont.)

alike, has been devoted to denying, concealing, suppressing, distorting and attempts to convert into its opposite the overwhelming evidence. Libel, slander and economic boycott have not been overlooked in this campaign.³⁶

US farmers had been officially recommended to stop washing cattle with DDT in 1949, but this advice was not enforced and was mostly ignored. In 1950 supplies of US milk were found to contain up to twice the amount of DDT that was needed to produce severe illness in humans. Biskind and fellow poliomyelitis researcher Ralph Scobey were invited to testify to Congress in 1950 and in 1951, respectively.³⁷ They drew up a formidable case for banning DDT, citing the work of many scientists. In 1951 the US Public Health Service said: 'DDT is a delayed-action poison. Due to the fact that it accumulates in the body tissues, especially in females, the repeated inhalation or ingestion of DDT constitutes a distinct health hazard. The deleterious effects are manifested principally in the liver, spleen, kidneys and spinal cord... DDT is excreted in the milk of cows and of nursing mothers.'

Effective action was slow to be taken, however: the health establishment was in total denial as far as pesticide effects on humans were concerned. Precautions were put in place too slowly and too late to stop the greatest of all the infantile paralysis epidemics – that of 1952, when some 57,700 cases were reported across the US, of which a third had paralytic symptoms.

By the end of the 1952 epidemic there was a vast amount of evidence to suggest that infantile paralysis was not caused by a virus:

1 Farm and domestic animals were paralysed at the same time as children. Chickens that had become lame were found to have suffered motor neurone damage. The poliovirus only infected humans and thus could not have caused the animals' paralysis. Exposure to poisons, on the other hand, can damage many different species at the same time.

2 Most cases of paralysis were incurred within 48 hours of each other. That is not

Vaccine Paralysis

1 Muscles can be poisoned and paralysed by being repeatedly injected with vaccines or antibiotics; this is now called 'provocation paralysis', and was no secret in the 1950s. In 1952 vaccinations had been suspended for the summer in the UK and US (the 'infantile paralysis season') as the injected arms of many children had been paralysed. The Lancet had reported: 'Clinically, the cases associated with recent immunisations were indistinguishable from the acute cases of paralytic poliomyelitis.'²⁰ By 1955 US children were receiving three injections with Salk's polio vaccine, as well as the smallpox and whooping cough vaccines.

2 Also, the Salk vaccine was far from pure. We now know that it was contaminated with a small amount of formaldehyde and viral debris.

1955	Some 200 children contract polio within two weeks of vaccination
1955/1956	Epidemic of polio - among vaccinated children
1957	Koprowski finds that 85 per cent of the non-vaccinated population of Congo are immune to polio – and then goes on to vaccinate them.
1958	New definition of polio slashes the number of cases reported after vaccination



CORBIS



By the time Jonas Salk's polio vaccine was introduced in America in 1955, the level of infantile paralysis in the country was *already* a third of what it had been in 1952, due to legislative restrictions on the use of pesticides.

Union wrote: 'These misfortunes would be almost endurable if a

whole new generation were to be rendered permanently immune to the disease. In fact, there is no evidence that any lasting immunity is achieved.'²¹

The following month Canada suspended its distribution of Salk's vaccine. By November all European countries had suspended distribution plans, apart from Denmark. By January 1957 17 US states had stopped distributing the vaccine. The same year *The New York Times* reported that nearly 50 per cent of cases of infantile paralysis in children between the ages of five and 14 had occurred after vaccination.

So, more regulatory and statistical changes were needed in order to give the polio vaccine the appearance of a triumph of modern medicine. What better way to achieve this than to reclassify all the cases of polio into numerous other diseases resulting in a massive reduction in polio cases, and a

host of other diseases to attract funding. And this is exactly what they did. Prior to 1958 the definition of infantile paralysis (polio) included cases in which paralysis was minimal: perhaps manifesting itself as a very stiff neck, often accompanied by widespread pain. Polio also included cases of 'meningitis', or of inflammation of the membrane that protects the brain and spinal neurons. The CDC describes such cases as 'serious but rarely fatal'.²² Prior to 1958 these cases were scientifically referred to as 'non-paralytic poliomyelitis', or polio for short. Henceforward, they would be reclassified. The Los Angeles County health authorities stated: 'Most cases reported prior to July 1 1958 of non-paralytic poliomyelitis are now reported as viral or aseptic meningitis.' The incidence of meningitis soared as official polio cases declined, as the following table (compiled from national surveillance reports)

different viruses could be present in cases of infantile paralysis. Prior to 1958 this did not matter. A doctor diagnosed a person with polio by taking note of their evident symptoms. They did not investigate to see if the poliovirus were present. In 1958 a new regulation was put in place requiring doctors to only register a patient as having polio if the poliovirus were present, something that was very difficult to establish for sure. For a start, it was impossible to tell by looking at symptoms. *The Textbook of Child Neurology* reported: 'Coxsackie virus and echoviruses can cause paralytic syndromes that are clinically indistinguishable from paralytic poliomyelitis.' This new requirement for doctors caused a vast drop in the number of cases registered as poliomyelitis – a drop that ever since has been credited solely to the vaccine.

So, when patients diagnosed as having polio in a 1958 epidemic in

shows.

	Non-paralytic polio cases	Aseptic meningitis cases
1951-1960	70,083	0
1961-1982	589	102,999
1983-1992	0	117,366

Jim West, *Images of Poliomyelitis*

These classifications are still used today. Last year the US National Center for Infectious Diseases reported no cases of poliomyelitis but 30,000 to 50,000 cases of aseptic meningitis requiring hospitalisation. There are probably several times this number of incidents of aseptic meningitis that did not require hospitalisation, but statistics are no longer kept for such cases.

Then another scam was enacted to massage down the poliomyelitis figures. It took advantage of the 1951 discovery that

THE LINKED HISTORIES OF POLIO AND PESTICIDES 5

1960 Introduction of the Sabin polio vaccine (below), which uses living polio viruses grown in monkey kidneys



1962 Publication of Rachel Carson's book on the dangers of pesticides *Silent Spring*



1972 Organochlorines and organo-phosphates are temporarily banned in the US; US exports of organochlorines and organo-phosphates expand

Polio: are pesticides to blame? (cont.)

the pattern for infectious outbreaks, which start slowly, grow faster as the infection spreads and then diminish as immunity develops. It is the pattern of a mass poisoning event.

3 Parents reported that some children fell ill immediately after eating fresh fruit. Fruit was sprayed heavily with lead arsenate at the time.

4 The illness was relieved by the administration of antidotes for chemical poisoning, and chemicals associated with poisoning appeared in the diseased tissues of the victims of paralytic polio – including oestrogenic chemicals now widely associated with environmental poisoning.

5 The spread of poliomyelitis was not affected by the closure of schools, as it should have been if the disease was infectious. Nor did close contact with paralysed children spread paralysis. Yet the virus presumed to cause the illness was highly infectious, as was shown by the widespread presence of antibodies for it among healthy individuals.

6 There was little or no correlation between the prevalence of polio antibodies in the population and the incidence of paralytic polio. In fact patients deemed to be recovering from paralytic polio were found to ‘be completely lacking’ in polio antibodies.³⁸

7 And the most virulent viral epidemics occur when viruses are newly introduced into populations. The poliovirus had been present long before the epidemics started. The use of chemical pesticides, in contrast, began just before the epidemics started.

Slowly, the US authorities began to act. Following the FDA secured legislative restrictions on the use of pesticides in 1954³⁹ and 1956⁴⁰, the incidence of infantile paralysis in the US plummeted immediately. By the time Jonas Salk’s polio vaccine was publicly released in 1955, the level of infantile paralysis in the US was *already* below a half of what it had been in 1952. The figures for the UK were even more dramatic: the incidence of infantile paralysis fell by more than 82 per cent between 1950 and the first mass administration of the vaccine in 1957. ■

Detroit were re-tested as required by this new rule, 49 per cent were found to have no poliovirus. They had to be reclassified as having ‘non-poliomyelitis acute flaccid paralysis’ even though they were suffering from symptoms identical to poliomyelitis with the same paralysis and the same pain. Other polio cases were reclassified as ‘Guillian-Barré syndrome’, which some researchers now think is what crippled Roosevelt. Yet more cases are now referred to as ‘Hand, Foot and Mouth Disease’, which can also cause paralysis. And last year the Coxsackie virus was found in cases of Chronic Fatigue Syndrome (CFS), which sometimes shows polio-like symptoms of muscle damage; in the past CFS might have been classified as a form of polio.

If this process of reclassification had not occurred, it would have been

impossible to hide the fact that infantile paralysis cases had sharply increased after the introduction of Salk’s vaccine. Without the Coxsackie and aseptic meningitis reclassifications, for example, the number of reported cases of paralytic polio would have doubled from 2,500 in 1957 to 5,000 in 1959.²³

This deliberate fraud did not go entirely unnoticed, however. Dr Bernard Greenberg, the then head of the Department of Biostatistics at the University of North Carolina, testified at a 1962 Congressional hearing that infantile paralysis cases had increased after the introduction of the vaccine by 50 per cent from 1957 to 1958, and by 80 per cent from 1958 to 1959. He concluded that US health officials had manipulated the statistics to give entirely the opposite impression.²⁴

What are viruses?

The pharmaceutical industry makes vast profits by exploiting paranoia about viruses, so it is important to understand just what viruses are. When viruses were first discovered they were presumed to be enemies. (The word ‘virus’ is Latin for ‘poisonous fluid’.) This was a serious misconception.

We now know that human bodies need and create viruses. Our cells contain tiny molecular engineers, known as transposons, which cut and adapt our DNA. Sometimes we may need to send genetic code from one cell to another – perhaps so as to resolve genetic problems or to deal with toxins. Cells can do this by turning transposons into messengers that carry genetic code from cell to cell. Travelling transposons are called ‘endogenous’ viruses: we manufacture them ourselves. They are essential to our genetic information highway. We make millions of such viruses.

Other viruses are ‘exogenous’: they originate from outside the human body. They must enter (infect) cells in order to ‘reproduce’. Some kill the cells they use to do this – others do not. If they are viruses that we have never met before, then they are more likely to be dangerous to us. Such a virus has recently been found present in 85 per cent of all cases of a cancer, mesothelioma, which is caused by asbestos. This virus, SV40, seemingly makes this toxin more dangerous to us, by switching off a human gene, p53, which protects us against cancer. And yet many exogenous viruses also do us no harm. We sometimes welcome them by making their genetic code part of our DNA. As such these harmless viruses are likely to have been around humanity for a long time. We have become adapted to each other.

1986	US ban on organophosphates lifted; victims of earlier polio epidemics report recurrence of symptoms
1995-2003	World Health Organisation reports an enormous increase in ‘non-polio paralysis’ around the world
2005	The year by which the WHO said the polio virus will finally be exterminated



The World Health Organisation (WHO) confidently predicts that polio epidemics are all but over and that the poliovirus itself will become extinct by the end of 2004. Who is it trying to fool and why?

The hidden epidemic

The disease that struck down so many in the 20th century epidemics was then known as infantile paralysis, or poliomyelitis. It was this disease the polio vaccines were intended to eliminate. But today infantile paralysis is renamed as Acute Flaccid Paralysis (AFP). How could the WHO be claiming to have nearly eliminated this disease when, by its own figures, epidemics of AFP are not ending but

rapidly getting worse.

Take the WHO's figures for the east Asian/Pacific region as an example. They reveal that the incidence of AFP went up between 1994 and 1998 by 50 per cent in China, 400 per cent in Malaysia, and 1,500 per cent in the Pacific islands. But other than providing these statistics, WHO pays little attention to any of these cases in which the poliovirus is absent – meaning nearly all of them.

These cases are left without a cure – and even without a vaccine! They become effectively a hidden epidemic.

WHO makes even bolder claims for Europe and the Americas. It states that they are now free of both polio and AFP. On closer inspection, WHO's figures do not bear much scrutiny. It declares that there is 'no data' for the number of cases of AFP in the UK and the US. It then interprets 'no data' as if it means 'zero'.⁴¹ But the US government's Centres for Disease Control (CDC) does not agree. The CDC records that many thousands of cases of AFP occur in the US every year. It reports that AFP can have many causes. For example, it says that Guillain-Barré disease causes 17 cases of AFP per 100,000 of the US population. That translates into around 50,000 cases annually. The CDC also says that every year there are some 30,000 to 50,000 cases of aseptic meningitis serious enough to require hospitalisation. Both Guillain-Barré disease and aseptic meningitis were diagnosed as polio during the US epidemics prior to 1957. If you use the pre-1957 definition, then there are many more cases of poliomyelitis occurring in the US today, than there were in 1952 – at the height of the US polio epidemics.

To this tally of 'Acute Flaccid Paralysis' one could add the many more cases of AFP reported by the CDC as occurring in an epidemic that has swept across the US over the past five years, and which is attributed to the 'West Nile' virus (WNV). The CDC states that WNV can cause a 'polio-like' paralysis. Many scientists have been less ambiguous. They say WNV is clinically indistinguishable from poliomyelitis.⁴² A paper recently published by the *British Medical Journal* suggests WNV may be 'rapidly evolving to fill new ecological niches'.⁴³ In 2003 there were 9,389 cases of this disease in the US, of which 2,773 showed damage to the nervous system and 246 were fatal. Some researchers think WNV has links to pesticides and other pollutants. A legal action is currently underway in New York to stop the aerial spraying of the city with Malathion, an organophosphate pesticide first used in the 1950s. The city authorities want to use it to kill the mosquitoes it blames for WNV. The litigants maintain that the pesticide is



REUTERS



The search for a virus and vaccine for polio was based on a flawed theory. This tragically distracted the medical establishment from the environmental science that might have cured a large number of children – and which could still do so

more likely to cause the disease than prevent it.

How does WHO distinguish the very few cases of AFP it says are caused by polio from other cases of AFP? It cannot do this easily – as there is no distinguishing symptom. It instead instructs doctors to send two samples of excrement from AFP patients to one of the scores of laboratories it has set up around the world. These inspect the excrement for poliovirus. If it is present, then they register this as a case of poliomyelitis. If they don't find the virus, then it is registered as a case of 'Non-Poliomyelitis AFP'.⁴⁴ But this WHO test is in effect meaningless. The poliovirus is by definition a type of enterovirus, which means a stomach bug. Its presence in excrement is thus natural – and does not indicate that it has damaged nerves.

WHO actively discourages doctors from looking for the poliovirus themselves in cases of AFP, because 'the

virus is very hard to find' and research shows that 'there was no relationship between finding the virus and the course of the disease'. It adds that presence of the virus in the central nervous system (CNS) 'appeared to have no diagnostic significance.'⁴⁵ And yet this is the very reason given for the need to vaccinate against the poliovirus.

The Sabin polio vaccine has been chosen by WHO to finally eradicate the poliovirus. It hopes to achieve this by inspecting the excrement from every case of AFP reported. Should it find a case in which the poliovirus is present, then the polio vaccine will be administered on a national scale so as to eliminate the risk of its spreading. This has happened now so many times that in countries like India children have

received up to 10 doses of the vaccine.

But this is the strangest tool for the WHO to choose to eradicate the poliovirus

with. Sabin's vaccine, unlike Salk's, contains living mutated poliovirus. This will breed in the vaccinated. WHO recommends this vaccine for the developing world for this very reason, for the vaccinated widely spread the virus, to infect and immunise those who have refused vaccination. WHO is thus strangely choosing to spread a poliovirus in order to eliminate it!

WHO shows little concern over replacing the natural poliovirus in the environment with an 'unnatural' laboratory-made mutated poliovirus bred in monkey cells. This is astonishing, given that this synthetic virus does not remain stable, but continues to mutate. Poliovirus contains RNA – a type of genetic coding that allows rapid mutation – and the vaccine's mutated poliovirus has acquired a reputation

among researchers for the speed with which it does this. The virus can also reside inside humans for more than 20 years, making it practically impossible to exterminate. And what is more shocking, but not surprising given the nature of viruses, it is now reappearing in more mutated forms in outbreaks on several continents.⁴⁶ The danger now is that these might now evolve to present a threat that the natural virus never did.

But why do we still have epidemics of infantile paralysis/AFP?

Organochlorine and organophosphate pesticides are back in widespread use. They may be better regulated, but their toxins still accumulate in body fats until they reach dangerous levels. The level of pesticide pollution on farmland in America is now so bad that the US Environmental Protection Agency 'estimates that there are 10,000 to 20,000 cases of physician-diagnosed pesticide poisonings' every year among agricultural workers. The CDC reports that approximately one billion pounds of pesticides are now used every year in the US. The global market for pesticides was estimated at \$1,761 billion in 1989; it would surely be bigger today.

The fact is, the victory won against pesticides in the early 1950s was very short-lived. In 1955, the very year that Salk's vaccine was launched, organophosphate pesticides were introduced into the US in *partial* replacement for organochlorines like DDT. The organophosphates were perhaps less dangerous than the organochlorines, but they were still highly neurotoxic.

It was only after the publication of Rachel Carson's sensational book *Silent Spring* in 1962, telling how pesticides were endangering the survival of America's symbolic bald eagles, that more meaningful restrictions were put on organophosphates and the remaining organochlorines. They were banned in the US in 1972, but not for long. In 1983 organophosphate pesticides were reintroduced.

During the ban, US pesticide manufacturers simply shifted markets. They redirected most of their sales to the

developing nations as infantile paralysis ceased to be the 'American disease'. The first polio epidemic in Manila happened in 1972. Today the WHO encourages developing nations to use cheap DDT to kill malaria-spreading mosquitoes, while it organises vaccination campaigns in the same countries to fight the polio that DDT may cause. Effectively, the pesticide companies are now partners to the WHO in its war against viruses. It's safer for them to blame a virus for polio than pesticides: viruses can't be sued.

WHO is now raising over a billion dollars, not to cure those still suffering from the original disease, not to look to see if toxins caused the children's paralysis, but solely as a matter of pride to try to win for the polio vaccine a seeming victory by eliminating a practically harmless virus.

It states on its website: 'There is no cure for polio: its effects are irreversible.'

The evidence strongly suggests that the polio epidemics of the past were man-made and caused primarily by the gross overuse of very dangerous pesticides

This is only so because public funds have been wasted on an ineffective and wrongly targeted vaccine that cannot cure a single case of AFP. This is nothing other than tragic for the thousands of children involved.

And finally, why is the WHO ignoring the possible role of pesticides, and sticking with its vaccination assault?

Is it because in our increasingly specialised, non-holistic world, the virologists involved with vaccines have not been talking to the toxicologists involved with chemicals? Despite the fact that there are literally hundreds of papers produced by the latter documenting how pesticides can harm our immune systems, dramatically lower the number of our vital illness-fighting 'T-cells', and cause numerous other diseases as well as paralysis⁴⁷, this research unfortunately does not seem to be filtering through to the vaccine industry, which is still based on the theory that viruses must be the principal

cause of all paralytic epidemics.

One hopeful sign of progress was a recent report by the US National Academy of Sciences, documenting how current levels of food contamination by organophosphates can cause 'acute poisoning in children'.⁴⁸ Another ground-breaking piece of recent research focused on treating individuals suffering from paralysis up to 40 years after becoming ill with poliomyelitis. A group of 17 individuals were placed into an environment from which most toxic substances had been removed, and were treated with antidotes to toxins. 'Long-term follow-up of the 14 improved patients showed general return of wellbeing and renewed vigour,' and 'eight became totally pain-free'. The researchers concluded that 'post-polio syndrome' was due to an 'overload of environmental pollutants on wounded target organs'.⁴⁹

The evidence thus strongly suggests that the infantile paralysis (polio) epidemics of the past were man-made disasters caused primarily by the gross overuse of very dangerous pesticides, and that these epidemics are continuing. The poliovirus,

along with other viruses, may play a role, but it seems it is a far smaller role than that given to it by the vaccine industry. The weight of evidence also strongly suggests that the search for this virus, and for a vaccine, was and is based on a flawed theory. This has tragically distracted the medical establishment from the science that might have cured a large number of children – and which could still do so.

The consequence of the campaign to spin the polio vaccine as a great success is not simply that the public has been deceived. If toxins are the primary cause of this disease, then countless thousands of paralysed children have never been treated correctly. Many could have had their pain removed. Many might have been able to walk again. This is not some abstract academic issue: it affects real people, enduring real suffering and real paralysis. This is a story of a hidden epidemic. It is surely time to cast aside the fog of doctrine and urgently consider what can be done to cure such people.

'If you continue to allow these contaminated [polio] vaccines to go out, I guarantee you that over the next 20 years you will have epidemics of cancer unlike the world has ever seen'. Bernice Eddy's testimony to the U.S. Congress in 1972.

Poisonous vaccines

The 1950's race to be the first with a polio vaccine was led by Jonas Salk and Albert Sabin. Both designed polio vaccines intended to make people immune by exposing them to millions of polio virus. Both would be administered in multiple doses to several hundred million children.

Making so much vaccine required a vast amount of polio virus. There was a fierce debate over what kind of cell to grow this virus in. Some advocated breeding it in fertilized chicken eggs, others in human placental cells grown in laboratory vessels, and others in dishes containing the cells of wild-caught monkeys. Salk and Sabin decided to use monkeys, since they could provide large organs on which the virus would grow

readily, and would be a few pence cheaper than the alternatives.

Salk and Sabin must have known that monkey viruses were a serious danger. Sabin had lost a colleague to a monkey virus (Simian Virus B) during vaccine-related research in 1932. And, Dr Herald R Cox, the Principal Bacteriologist of the United States Public Health Service, had forbidden his scientists from using monkeys to make a polio vaccine because of the danger monkey virus represented.

Nonetheless Salk and Sabin pressed on with monkeys. They both selected the rhesus monkey found in the temples of northern India. They used their kidneys, since these are large and easy to remove and their testicles, since these are even easier to extract. They calculated they

could grow enough viruses on a single kidney to make around 6,000 doses of the vaccine – enough for 2,000 children at 3 doses each. In 1955 this meant they required the kidneys of some 47,710 monkeys for the US – and some 8,000 for the UK vaccine.¹

The monkeys were flown via London to the US. On average, half of the monkeys died on route or were rejected as too infected or ill to use on arrival. But some two million wild-caught monkeys arrived in good enough shape to be killed in the West for polio vaccine production and testing over the next decades.

In 1955, the UK adopted the Salk vaccine against the recommendation of its local manufacturer, Wellcome, which wanted instead to use a vaccine it thought safer as it was not grown in monkeys but in fertilized chicken eggs. Sweden and Canada would also refuse to use monkey cells – instead they grew their vaccines' polio virus on human cells multiplied in laboratories.

In 1954, the scientist in charge of the US government's safety testing laboratory, Bernice Eddy, made a shocking discovery. Her monkeys, after being dosed with the monkey kidney preparation, had collapsed and died. This should have been the end for the Salk vaccine – but astonishingly it wasn't. Instead, Eddy was silenced by her employer, the federal National Institutes of Health.

Eddy continued to worry. In 1959 she took matters into her own hands. She went back unauthorised to put the Salk polio vaccine through more tests. She was horrified to find that, when she injected its growth medium into 23 hamsters, 20 of them grew large cancer tumours. She investigated further and found the Salk preparation had infected the hamsters with a monkey virus. This would be named Simian Virus 40 (SV40) as it was the 40th monkey virus discovered. Again her boss would react with fury, and ordered her to remain silent. This time she didn't. In 1960, at a meeting of the New York Cancer Society, she told them what happened when she had tested the Salk vaccine. She was immediately demoted by the National Institutes of Health. They took her laboratory from her and delayed publication of her research.

Meanwhile the Salk vaccine was



REUTERS

Making the vaccine

To mass vaccinate, the vaccine scientists had to produce a stable 'seed-stock' of poliovirus from which they could breed the huge amounts of virus needed for the vaccine. The process they used was crude and very liable to viral contamination.

They made a suspension in water of diseased spinal tissue from polio victims, and injected this into the living brains of monkeys. They believed that the more times they repeated this the larger, more stable and purer the seed-stock of polioviruses produced for the vaccine would become.

Salk thus injected the diseased tissue into the brains of 14 monkeys one after the other. Each time he would extract fluid from the infected brain and then re-inject this into another. Finally he poured the virus-rich fluid from the last monkey into a vessel containing minced monkey testicles. The viruses grew in number.

The fluid from this was then poured onto more testicles where the virus multiplied further. This viral-rich fluid was then filtered, spun and roughly purified, before being put into bottles labelled as the Salk vaccine seed.

Salk then sent his patented vaccine 'seed' to various manufacturers where it would be mixed with vast quantities of minced monkey kidney on which the virus would multiply a million-fold – before being killed by poisoning with formaldehyde prior to being put into bottles of his vaccine. Six manufacturers would thus make up 27 million doses of his vaccine in 1955, in absolute confidence that it would be officially approved.

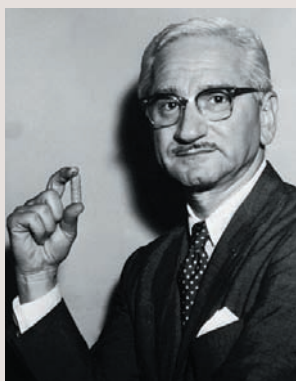
SABINS OPV

As Sabin wanted to use a 'live' polio virus, he needed to weaken or 'attenuate' the virus, in much the same way as one could weaken a plant if it were rapidly and repeatedly moved from one type of soil to another.

Hence, the poliovirus was weakened by mutation, brought about through rapidly transplanting it up to 51 times from one lot of monkey kidneys to another. It was also weakened by having to adjust to growing in different species of monkey cells. Both Indian Rhesus and African Green monkeys cells were employed - thus giving the vaccine 'seed' every opportunity to become contaminated with incompatible viruses from two continents before being bottled as the patented 'Sabin Original Merck' polio virus seed lot. This was 'safety tested' by being injected into the brains of about one hundred chimpanzees.

A leading scientist, Leonard Hayflick, wrote in 1958: 'Monkey kidneys were notorious for their content of unwanted viruses, potentially dangerous viruses.' He said the Sabin vaccine was grown on 'constantly contaminated monkey kidneys.' Joshua Lederberg of Stanford University would warn 'crude virus preparations, such as those in common use at the present time, are vulnerable to frightful mishaps of contamination and misidentification.'

We now know the polio virus seed lots they produced were a virtual maelstrom of monkey and human viruses, all circulating among great numbers of DNA fragments and much cellular debris, all potentially highly dangerous. This was inevitable, given Salk and Sabin's choice of production methods and the technology available to them.



proving ineffective. Children vaccinated with it were still coming down in hundreds with polio. *The Journal of the American Medical Association* would carry an article admitting, 'It is now generally recognised that much of the Salk vaccine used in the US has been worthless.'² By 1959, preparations had begun to replace it with its main rival, the Sabin oral vaccine.

Behind the scenes, news of Eddy's unauthorised research had reached Merck, Sharpe and Dohme, who were then manufacturing both the Salk and Sabin vaccine. They put two scientists, Ben Sweet and Maurice Hilleman, on to checking to see if her research on the Salk vaccine also applied to the Sabin. They found it did. In a 1960 paper they reported the 'Sabin live polio virus vaccine was contaminated' and 'SV40 has oncogenic [cancer-causing] properties in hamsters.' They added that this 'raises the important question of the existence of other such viruses.'

Asked many years later why they had not warned the public, Hilleman replied; 'Because you could start a panic. They had already had production problems with [vaccinated] people getting polio. If you added to that the fact that they found live [monkey] virus in the vaccine, there would have been hysteria.'

But their reports led the giant Merck Corporation to decide that both the Salk and the Sabin vaccines were much too dangerous for it to continue to make them. And despite being begged by the US Surgeon General to continue, they declined, writing in December 1960, 'having again reviewed our decision in the light of your letter... Our scientific staff have emphasized to us that there are a number of serious scientific and technical problems that must be solved before we could engage in large-scale production of live poliovirus vaccine. Most important among these is the problem of extraneous contaminating simian viruses that may be extremely difficult to eliminate and which may be difficult if not impossible to detect at the present stage of the technology.'³ But again none of this disquiet was made public. This letter and decision would only be disclosed some thirty years later through a legal action brought by the parents of an allegedly

vaccine-damaged child.

The implication of what Merck said to the Surgeon General was that both the Salk and Sabin polio vaccines had been released and given to children by the million despite their manufacturers being unable to remove from them their monkey virus contamination. Whilst Merck honourably withdrew from doing this, other companies would irresponsibly continue. The UK and US Health Departments, and the World Health Organisation, likewise irresponsibly continued to endorse the safety of these vaccines, which were known to be contaminated.

Privately, among the scientists involved, a joke circulated. The Sabin vaccine had just been tested on some 80 million Soviet citizens. The joke was that they had made sure the Russians would not be able to compete at the coming Olympics – as they would be riddled with cancers!⁴

The Merck letter did not lead to the health authorities withdrawing the polio vaccines. They continued to distribute them until, in 1961, a doctor in Scotland, who presumably had read Sweet and Hilleman's report, decided to test the children to whom he had just administered the Salk vaccine.⁵ He was shocked to find that half the children were contaminated with SV40. He immediately reported this to the *Lancet* medical journal.

This exposure led to instant but secret action. The authorities in the US and UK stopped distributing the Salk vaccine and replaced it with the Sabin vaccine. But none of the contaminated vaccine distributed was to be withdrawn. The authorities didn't want to alarm the public. It would take two years before all the contaminated stocks of Salk vaccine were exhausted.

In self-defence the US health authorities have since repeatedly claimed that the measures they took in March 1961 ensured that the polio vaccine was totally clear of SV40 from then on.⁶ But this would be exposed as a lie when the private correspondence between government and vaccine manufacturers became public in the course of litigation by parents.

In 1961, the government's man in charge of vaccine safety, a Dr Murray, secretly authorised Lederle Inc (the major Sabin polio vaccine manufacturer in the

US) to use SV40 contaminated vaccine.⁷ On top of this, the same internal memo revealed that the company was not only using the SV40-free African Green Monkeys to make the vaccine but was 'harvesting kidneys' from a monkey species from the Philippines, the *carcopithecus*, that did carry SV40.

And another memo forced out into the open revealed that Lederle had totally ignored the FDA regulation that bound manufacturers to ensure 'each seed virus used in the manufacture shall be demonstrated to be free of extraneous microbial agents'. Lederle had not even bothered to check to see if they were. This was supported in a US government memo, which recorded; 'It should be made clear that Lederle did not test the original Sabin seeds for extraneous agents or neurovirulence'.⁸

In 1976, with the withdrawal of Pfizer, Lederle became the only manufacturer of the Sabin vaccine in the US, and that same year, researchers at the US Bureau of Biologics found its polio vaccine contained between 1,000 and 100,000 simian viruses per millilitre of vaccine.

In 1978, John Martin, Director of the Viral Oncology Laboratory at the US government's Bureau of Biologics inspected the samples of polio vaccine held at his lab. He reported: 'There was a lot of extraneous DNA in the vaccine'.⁹ But he was told to do nothing about it, since a protest might cause Lederle to stop production and 'vaccine manufacturing was an essential component of industry, this country's protection against potential biological warfare'. John Martin would later discover in damaged human brain cells another monkey virus, SCMV. He found this was from the African Green Monkey, the same species that are currently used to make the polio vaccine. Thus monkey viruses and DNA fragments continued to be administered to hundreds of million of children under the guise of the polio vaccine.

The consequences are now coming out in scores of scientific papers. The first human cancers containing SV40 were discovered around 1970. One of these was that of Mark Moreno. He had a large brain tumour removed in 1970, and has since had several operations. His tumour was riddled with SV40. (He is currently suing for compensation.) Many similar cases have since been found.

Yet in 1988 the UK Health Minister would assure Parliament that, although the polio vaccine was once contaminated with SV40, American research had showed SV40 to be harmless.

Is the Current Polio Vaccine Safe?

Michael Steward, Professor of Immunology at the London School for Hygiene and Tropical Medicine, headed a team working on new vaccines, so I asked him about children who fell severely ill shortly after taking vaccines based on living viruses. One of my questions was: 'Could their parents possibly be right in suspecting the vaccine?' His reply was: 'What else would you expect?' I expressed surprise. He continued, 'We all know the current living viral vaccines are dangerous – that is why I am heading a team to try to develop safer vaccines.'¹⁰

Quite simply we still do not have the technology available to completely purify these vaccines; at least at a price the manufacturers are willing to pay. WHO instead has set a 'recommended' level for maximum vaccine contamination. It recommended in the mid 1990s that 'the amount of cellular DNA [contaminating] biological products should be limited to 100 picograms [100,000 billionths of a gram] per dose'.¹¹

This limit however seemingly proved 'unrealistically low'. So the recommended maximum was increased ten thousand fold to 10 nanograms (ten billionths of a gram). However, a safety-supervising scientist admitted in 1999 that 'for live viral vaccines, ... it may not be possible to limit the total amount of DNA to ten nanograms'. In case this level of contamination seems inconsequential, I believe ten nanograms is greater than the approximate weight of 250 million polioviruses or 200 million SV40. The seriousness of this level of contamination is still undetermined, but it has been noted that the presence of a single SV40 virus, or a piece of free DNA, in a cell, may suffice for that cell to be damaged, and possibly made cancerous.

And we still do not know what effect this vaccine cocktail of monkey viruses, DNA debris, nanobacteria and toxins, and the possible resultant re-combinations and mutations of viruses, has had on the some four billion children

The case against SV40

In 1988, a review of a study conducted between 1959 and 1965 on 58,807 pregnant women¹², discovered that the risk of brain tumours among offspring of mothers who had received the Salk vaccine was 13 times higher than the risk among offspring of mothers who had not. The conclusion was that the cancers were probably caused by a still-unknown infection originating in the polio vaccine, which (according to the reviewers) was known to have been contaminated with numerous simian viruses.¹³

Also in 1988, Michele Carbone, a researcher in Chicago, found SV40 in around 85 per cent of the cancers associated with asbestos. It appeared to make this toxin more dangerous. He found it switches off a key human gene, the p53, which helps to protect us from cancers.

In 1997 I attended a National Institutes of Health emergency workshop in Washington called, because laboratories worldwide had found SV40 in over 33 per cent of all the human bone cancers tested and in over 85 per cent of the childhood brain tumours. The FDA that same year also reported: 'The discovery in 1960 that a DNA tumour [carcinogenic] virus, designated simian virus 40 (SV40), was an inadvertent contaminant of rhesus monkey cells...it confronted the scientific and regulatory community with the very problem that they had sought to avoid in vaccine development...'¹⁴

Late in 1999 an extensive study in China reinforced those results. It found SV40 in common brain tumors among children. It also found the virus in 33 to 90 per cent of five other kinds of brain tumour examined.¹⁵

In 1998 SV40 was found for the first time in English cancers. At that time no laboratory in England was equipped for such a search. It was only found because I went looking for it with colleagues while working on a documentary for Channel 4's Dispatches. Our team used a laboratory in Italy to test about 20 cancer samples from English patients. We found SV40 present in a bone cancer and in a terminal case of mesothelioma.

Two very recent studies, from Finland and Turkey, found no SV40 in domestic mesothelioma (cancer caused by asbestos) samples but did find it in American and Italian samples. Neither Turkey nor Finland used SV40-contaminated vaccines, while Italy and the US did. Today Finland has one of the lowest rates of mesothelioma in the Western world.

In the last few years SV40 has been linked to more and more cancers, such as Non-Hodkin's lymphoma, the fifth most common cancer in the US and one that has been rapidly increasing since the contaminated polio vaccine was released.

A recent German study found that if one put SV40 into lactating female rats they all got breast cancer, (as did 70 per cent of the non-lactating) but the SV40 did not stay in the tumours it helped create. Could this explain the growth in human breast cancer?¹⁶

NIH researcher Dr. Jeffery Kopp has also uncovered a link between SV 40 and a new and deadly form of kidney disease. Prior to 1980 so-called 'collapsing' renal disease was unknown. Since that time, however, it has been rapidly increasing. Fully 60 per cent of those with the new, virulent 'collapsing variety' showed evidence of SV 40.

It seems from all the research that SV40 is dangerous because it is badly adjusted to living in us, perhaps because it only recently infected humans and has not yet adapted to us. It attaches to our cells in such a way that it disables two key immune system defences. It also damages our chromosomes by adding or deleting whole sections. Once inside a cell, Joseph Testa reported, 'it looks as if somebody set off a bomb inside the cell's nucleus.'

to which the contaminated polio vaccine has been given in repeated doses through their most vulnerable years.

The evidence seems to lead to the inescapable conclusion that the polio vaccine has been an unmitigated disaster. It was made to stop epidemics of infantile paralysis but they are still happening, and mistakenly tried to do so by targeting a virus that, given the evidence, is most likely never to have been the principal cause of this disease. Instead it has spread monkey viruses and other contaminants around the world, perhaps causing far more serious illness than the poliovirus ever did.

At the root of this disaster as always, lies money. The drug companies made the choice for the UK and much of the rest of the world. They chose to continue to use monkey kidneys instead of safer cells since it was for them a few pennies cheaper a dose, despite knowing that these kidneys carried monkey viruses into the vaccine, despite knowing from early on that at least one of these was linked to cancers. They have thus knowingly and dangerously contaminated our children – and, tragically, are still doing so.

Resources

- 1 To follow up the footnotes in this report please visit The Ecologist website: www.theecologist.org
 - 2 The author's website at www.vaccines.plus.com contains many of the documents to which she refers in this special report. These resources can also be obtained on a CD via this website.
- 3 Other valuable resources:**
- Jim West's Images of Poliomyelitis Website – a new definition of polio www.geocities.com/harpub/newdef.htm
 - A very useful collection of research on vaccines www.whale.to
 - Testimony to Congress on SV40 in 2003 www.909shot.com/Loe_Fisher/blfsv40testimony
 - Research on polio vaccine, SIV and HIV venus.soci.niu.edu/~socio/bmartin/dissent/documents/AIDS/
 - A parents' website – note the great 2003 letter to the US congress www.ouralexander.org/
 - The No Spray Coalition – trying to stop organophosphate spraying against West Nile Virus - www.nospray.org/
 - Virusmyth.com – a website that very extensively documents research by top academics on how chemical pollutants could also have led to AIDS.

Book of the month

The Fluoride Deception

Christopher Bryson

SEVEN STORIES PRESS, 2004, \$24.95

Considering that the Labour government is keen to fluoridate the whole of our water supply in the very near future, this startling and terrifying book could not be more timely. Focusing on the history of fluoride in the US, its message is just as relevant for UK readers.

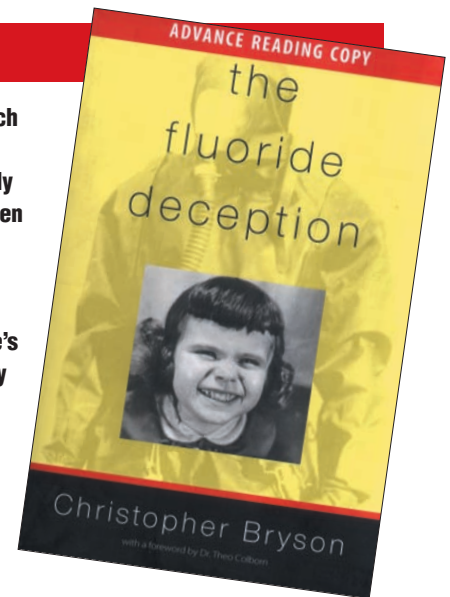
There are several well-known stories in the fluoride saga, and Bryson recounts them all with some style – including the chemical's role in the making of the atomic bomb that fell on Hiroshima.

But *The Fluoride Deception* is much more than a well-packaged re-run of old tales. For example, Bryson details a hitherto unpublished study that he found

collecting dust in a laboratory basement, which shows that researchers have known about fluoride's hazards for far longer than previously realised. Bryson argues that had this study been published earlier it would have led to stricter health and safety standards for workers in fluoride industries.

Add to this the truth about Teflon, fluoride's effects on the central nervous system and why Sigmund Freud's nephew called the promotion of fluoride 'the engineering of consent'... The list goes on. Bryson's book is an essential document that should also act as a call to arms for a campaign to prevent our government forcibly fluoridating our water.

REVIEWED BY STEPHEN WILLIS



'It is time to recognise the folly, hubris and secret agendas that have shackled us for too long, poisoning our water, choking our air and crippling workers'

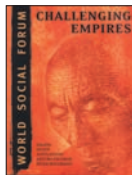
LATEST RELEASES

World Social Forum: challenging empires

Edited by Jai Sen et al

THE VIVEKA FOUNDATION, 2004, \$23.95

More than 100,000 people attended the fourth World Social Forum in Mumbai in January. To mark the occasion, the editors of *Challenging Empires* have assembled a diverse collection of essays assessing the forum's significance and potential.



The Long Summer: how climate changed civilization

Brian Fagan

GRANTA, 2004, £20

As the title suggests, Fagan's book pays only a cursory nod to how civilisation is changing climate. Instead, it looks at how climate changed civilisation. A fascinating history of climatic shifts over the past 20,000 years or so.



Colombia and the United States: war, unrest and destabilization

Mario A Murillo

SEVEN STORIES PRESS, 2004, £7.99

Colombia is one of the most misunderstood countries in the world. Anyone wishing to comprehend the reality of the situation, especially with regards to US foreign policy, need look no further than Murillo's book.



Against Extinction: the story of conservation

William M Adams

EARTHSCAN, 2004, £16.95

When the conservation movement began in the 19th century, its main aim was to keep game stocks up for colonial hunters. Adams charts how the movement's emphasis changed from conservation for hunting's sake to conservation for species' sake.



The hype about hydrogen: fact and fiction in the race to save the climate

Joseph J Romm

ISLAND PRESS, 2004, \$25

Is hydrogen the answer to the world's energy problems? Not according to Romm, who argues that a hydrogen economy is many years further down the line than its proponents suggest, and that pursuing it is distracting us from solutions that work now.

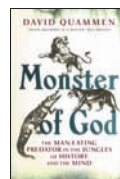


Monster of God: the man-eating predator in the jungles of history and the mind

David Quammen

HUTCHINSON, 2004, £25

The world's man-eaters are far more at risk from human activity than we are from them. Here, Quammen explores the complex relationship between mankind and these great predators, arguing that as we drive them from existence we threaten our own survival too.

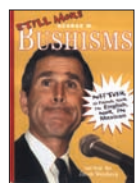


Still More George W Bushisms

Edited by Jacob Weisberg

POCKET BOOKS, 2004, £5.99

Such as: 'There's only one person who hugs the mothers and the widows, the wives and the kids upon the death of their loved one. Others hug, but having committed the troops, I've got an additional responsibility to hug and that's me and I know what it's like.'



Full Spectrum Dominance: US power in Iraq and beyond

Rahul Mahajan

SEVEN STORIES PRESS, 2004, £6.99

Essential reading. The news may be full of minutiae detailing the latest developments, but to really understand their implications it is vital to take a step back and look at the bigger picture. *Full Spectrum Dominance* does just that.



Green alternatives to globalisation: a manifesto

Michael Woodin and Caroline Lucas

PLUTO PRESS, 2004, £11.99

Two of the UK Green Party's leading lights lay out the environmental arguments for localisation. They show how many of the current crises – from climate change to militarism – could be better addressed through such an approach.



Reviews

MY FIVE MOST INFLUENTIAL BOOKS

Jay Griffiths

Jay Griffiths is the author of *Pip Pip: A Sideways Look at Time*. The book has recently won that Barnes and Noble Discover Great Writers Non Fiction award 2003 in the US. One of the judges, Richard Rosenblatt, said of the book: 'Jay Griffiths has produced nothing short of an original opening of the human mind, a study of what makes us, well, tick... Her book is cleverness in the service of genius.'



1 Which book first made you realise that 'something was wrong'?

When I read Germaine Greer's *The Female Eunuch* I felt a world-shift in my mind. Once you understand how power works in one situation – gender – you see how it works in others: race, the environment, wealth or class.

2 What book would you give to every CEO?

Leonard Peltier's *Prison Writings: My Life is my Sun Dance*. Native American Peltier has been in prison since 1977 for the murder of two FBI agents – although the original prosecutor has admitted the government does not know who killed the agents. At the time of his trial, a Native American witness for the defence said she received death threats unless she gave testimony against Peltier. She refused and was soon found dead, shot through the head. A story that reveals the ongoing extermination of First Nations people, whose lands and resources overwhelmingly provide the wealth of corporations.

3 ...to every politician?

Sven Lindqvist's *A History of Bombing* demonstrates how the US and the UK were the countries which most deliberately (diligently, almost) murdered civilians in their millions and tried to manipulate international law to excuse themselves. The book is dedicated to no one, but I'd write in each copy a dedication to Russian submarine captain Vasily Arkhipov who, in the Cuban missile crisis, was quick enough and independent-minded enough to block an order to fire nuclear missiles. We got through by a whisker.

4 ...to every child?

Momo by Michael Ende. Momo is a small poor girl who protests against modernity's abuse of time. She, almost alone in the town, cannot be cheated by the lie that 'time is money' because she knows that time is life itself.

5 It's 2050: the ice caps have melted; sea levels are rising. You're only allowed one book on the Ark. What is it?

The microprinted edition of the full *Oxford English Dictionary*, which comes with its own magnifying glass. Because language is irrepressible mind – wild, free, green and vivid – and because to be let loose in the land of language is an unutterable privilege. (And in the box holding the magnifying glass I'd hide Adrian Mitchell's poems *Heart on the Left*. For comfort.)

Reel and Rout

Robert A.G. Monks

BROOK STREET PRESS, 2004, \$23.95

Robert AG Monks is one of the most famous shareholder activists in the world. He has dedicated his career to advocating business responsibility from within the heart of global corporations. In *Reel and Rout* he translates his experiences as a lawyer, industrialist, politician and constant thorn in the side of big business into a fast-paced novel.



Cedric 'Drive' Rhodes, ageing CEO of the world's most powerful media company, is determined to execute one final coup: his most daringly brilliant and challenging takeover yet. Part-airport potboiler and part-biting critique of the backroom shenanigans of corporations, Monks reads like a Grisham of the anti-corporate world.

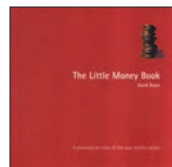
REVIEWED BY LUCY WESTON

The Little Money Book

By David Boyle

ALASTAIR SAWDAY PUBLISHING, 2004, £6.99

This palm-sized guide, written by an associate of the independent radical think-tank the New Economic Foundation, explores how money functions in the world.



The fact is that something is seriously wrong. We value unimportant things (McDonald's franchises, foreign-exchange transactions, hedge funds) highly and important things (family, community, nurses) not much at all. What is good in society and what is vital in our lives gets driven out. This wry little book will tell you where money comes from, what it means, what it's doing to the planet and what we can do to make the financial system serve the real interests of humanity again.

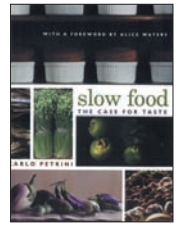
REVIEWED BY SARAH MCCARTHY

Slow Food: the case for taste

By Carlo Petrini

COLUMBIA UNIVERSITY PRESS, 2004, £17.50

'We are enslaved by speed and have succumbed to the same insidious virus: fast life. To be worthy of the name, *homo sapiens* should rid himself of speed before it reduces him to a species in danger of extinction.'



It was in 1986 that Slow Food founder Carlo Petrini decided to resist the march of fast food. He organised a protest against the opening of the first Italian McDonald's restaurant near the Spanish Steps in Rome. Armed with bowls of pasta, he served a deliciously stated case against the globalisation and standardisation of the world's food. Since then Slow Food has grown into a global organisation that supports and celebrates food traditions in more than 40 countries.

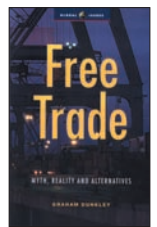
REVIEWED BY DANIEL MADAV

Free Trade: myth, reality and alternatives

By Graham Dunkley

ZED BOOKS, 2004, £9.99

Trade was once the most glamorous and dangerous pursuit on earth: merchant adventurers and caravan trains would cross deserts and mountain ranges, returning from their perilous journeys laden with treasures and tales from afar. Things are a bit different today. Any innocence there might have originally been has been replaced by drugs, arms, and products and services that destroy entire national industries. But what lies at the heart of the 'free' trade doctrine?



This penetrating study of globalisation looks at the arguments against free trade, whether a greater degree of self-reliance is feasible and what the alternatives could be.

REVIEWED BY DANIEL MADAV

Feel hopeless? Don't think you can make a difference? THINK again.

If you see an advert in The Ecologist it means **we trust the company not to put profit before the planet.** That's why you won't find full page spreads for Starbucks, Coca Cola or the latest high performance sport car.

We're not saying buying is the answer to the world's problems; but what you buy and who you buy from is vitally important to the burgeoning market of unsubsidised, **small and local businesses.** None of them are making 'super' profits. None of them have brands endorsed by 'super' stars. And none of them can be found in 'super' markets.

They don't rely on children shackled to sowing machines for \$1 a day. They don't reduce their livestock to units of meat kept barely alive on a diet of antibiotics and growth hormones. They don't treat the rest of the world as their laboratory, quarry or playground. BUT **they do care** what effect their products have on your health and that of the planet.

So don't think we are just taking their money and losing them in the back of the magazine. We think they are worth supporting... not just because they sell excellent products and are helping us get the word to as many people as possible; but because with your support they can thrive in the face of fat brands and help halt the erosion of our communities and fragile environment.

Offer of the month

Despite its massive surge in popularity, turning to bottled water is not an environmentally sustainable solution. Ever growing demand drains areas of their groundwater. Transport of bottles causes needless pollution. And mountains of plastic bottles are being thrown into landfill every week.

One alternative that both protects your water supply and doesn't damage the environment is a water filter. If you take a



contract out with Simply Water they'll supply you with an easy to install filtration system to attach to your tap, and then update the filters as and when you need them.

AS AN INTRODUCTORY OFFER TO ECOLOGIST READERS, SIMPLY WATER ARE OFFERING NEW CUSTOMERS A FREE WATER FILTER WORTH £32.

GREEN PAGES

BOX SCHEMES

BUSINESS RESOURCES

CAMPAIGNING:

- What, where, how, and who?
- What's happening in May?

CAREERS

CLEANING PRODUCTS & SERVICES

COURSES:

- DIY/Self build
- Food & Health

EDUCATION:

- Degrees
- Schools

FINANCE

HOLIDAYS:

- England
 - Cornwall
 - Devon
 - Norfolk
 - Somerset
 - Wiltshire
- Ireland
 - Cork
- Scotland
- Wales
 - Mid Wales
 - South Wales
- Overseas
 - Italy
 - Spain
 - Greece
 - France

ORGANIC FOOD AND DRINK

PAINTS

PERSONALS

PROPERTY

RECYCLED GLASS

TENTS

VOLUNTEERING

WATER FILTERS

holidays

...a chance to relax and escape. But what are we escaping from? Most of us live our daily lives divorced from the natural world. Might we not get a more fulfilling holiday if we didn't so much try to escape the real world, as to return to it? All the companies on the following pages offer unique experiences, but they all share the same ethos – your holiday will support and respect the local community and will be spent closer to nature, without harming it.



RESPONSIBLETRAVEL.COM holidays that give the world a break

Whatever the type of holiday – adventure, beach, safari, cultural tour, conservation, yoga or wildlife; whether you're a family, single or a couple, young or old; whether you're on a tight budget or you want luxury – you can do it responsibly.

At responsibletravel.com you'll find thousands of holidays run by leading specialist operators, and unique accommodation in 120 countries. All our partners abide by responsible travel policies, and are committed to protecting the environment and making sure that local communities benefit properly from your visit. You can read these policies on their websites.

Because our partners all start from the premise that local is best (they use local guides and locally-sourced food and will help you enjoy the best of local culture) you will gain a real appreciation of your destination and will enjoy a more fulfilling holiday as a result.

So, if you've had enough of mass tourism, would like a new type of holiday experience and want to find it and book it easily, go to responsibletravel.com now.

AEGEAN ECO-HOLIDAYS

Yuva Eco Holiday Village, Turkey

Yuva Eco Holiday Village is in an area of outstanding natural beauty, where the Toros Mountains of southwest Turkey plunge directly into the sea. The long-held green dream of former economist Atilla Sevilimis and his extended family, the centre has an ethos of respect for the environment. The spacious comfortable rooms are built of local materials, mostly in the style of Anatolian farmhouses – with thick earth walls and cedar interiors. All rooms have western-style 'eco-loos' and solar-heated showers. The family cooks delicious, mainly organic, vegetarian/vegan food. Organic spelt bread is baked over a wood fire. Swimming is just five minutes away.

Prices range from £89 for a seven-night Eco Work Camp in May, to £499 half-board for a fortnight in May to October. Flights (starting at about £200) are not included.

Tel: 01760 755888 www.vegiventures.com

BAOBAB

Tanzania is a country of incredible contrasts. From the endless plains of the Serengeti to the glaciers of Kilimanjaro and the golden beaches of Zanzibar, there is an amazing variety of landscape and peoples. This great natural wealth could also be the country's greatest economic hope. Underemployment, rather than unemployment, is the issue for many in Tanzania, with its fragile economy and dispersed rural population. Tourism, if managed in an economically sustainable way that is sensitive to the local ecology and culture, creates much-needed jobs. By operating with local providers and avoiding mass tourism resorts, BAOBAB Travel

offers holidays to people who wish to give something back to the communities they visit: up to 80 per cent of your holiday cost goes to the host country. BAOBAB also offers trips to South Africa, Malawi, Kenya and Egypt.

BAOBAB

Alternative Roots to Travel

Phone: (+44) 0870 382 5003

Email: contact@baobabtravel.com

www.baobabtravel.com



ORGANIC HOLIDAYS

Organic is about much more than just not spraying your food with pesticides: it is an approach to life. On an Organic Holiday your hosts will often be involved in techniques or organisations such as permaculture, biodynamics, ecotourism, Slow Food and organic box schemes. Their concern for the environment is also apparent in the nature of the accommodation provided: recycling, solar heating, natural linens, sustainable woods, organic paints and ecological cleaning agents are common.

All manner of pursuits can be found: try your hand at making beer and wine, harvest your own fruit and vegetables, scythe the grass and make hay, or learn a craft such as yurt-building, cheesemaking or willow work. Of course, more commonplace activities are on offer, too, such as yoga, walking and riding. If all this sounds like too much effort, we also have retreats where you can just unwind and enjoy the restorative effect of a variety of therapies and treatments.

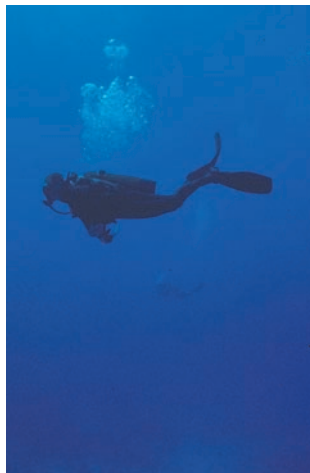
Tel: 01943 870791

www.organicholidays.com

BLUE VENTURES

Blue Ventures is an award-winning not-for-profit organisation dedicated to facilitating projects that enhance global coral-reef conservation and research. Healthy coral reefs are fundamental to the livelihoods of hundreds of millions of people in tropical coastal environments, as well as forming part of the crucial life-support system of the biosphere. However, reefs worldwide are increasingly subject to over-exploitation and degradation. Blue Ventures coordinates teams of marine scientists and volunteers, working hand in hand with local biologists, marine institutes, NGOs, and communities whose livelihoods depend on these marine ecosystems, to carry out research and environmental awareness and conservation programmes at threatened habitats around the world. Blue Ventures continues to offer opportunities and field experiences, both in the UK and overseas, to volunteers wanting to get involved in marine conservation at many levels. Our teams are made up of committed volunteers from a wide range of backgrounds. We pride ourselves on this diversity.

Tel: 0781 387 7781 www.blueventures.org



TRIBES

TRIBES, the fair-trade travel company, offers holidays that are second to none in terms of quality and excitement, and which also benefit local communities, wildlife and the environment. We have a comprehensive collection of tailor-made or small-group trips in 14 countries, including cultural holidays, wildlife safaris, trekking and short breaks.



Whatever you choose to do, with Tribes you can do it in the knowledge our background research ensures your money is being put to good use. There are many people helping communities in the developing world, and promoting good environmental conservation. It is these people and their products that Tribes champions.

www.tribes.co.uk

Email: eco@tribes.co.uk

Tel: 01728 685971

NATURAL DISCOVERY

Discovery Breaks – a quality break for you *and* the environment. Whether you want to relax, have fun, explore Britain's areas of outstanding natural beauty, stay in environmentally-friendly accommodation, or just take a more responsible holiday, Natural Discovery has something for you. Discovery Breaks include:

staying in a green lodge in Sussex and discovering the county's beautiful countryside and coastline; visiting the stunning Dyfi valley, home to the Centre for Alternative Technology, in



Wales; and taking an overnight sleeper to explore the Scottish Highlands and islands. Accommodation, fully tailored packages, group and corporate activity breaks – Natural Discovery does it all.

Tel: 0845 458 2799

www.naturaldiscovery.co.uk

ORGANIC SELF-CATERING HOLIDAYS

Based around the medieval grassed courtyard of Penrhos Court Organic Restaurant and Hotel and the Green Cuisine School of Food and Health are two converted self-catering apartments – Skylark and Barn Owl. Located in a restored 18th century threshing barn, the apartments sleep two to three people on three levels that look out across the dramatic Black Mountains of the Welsh Marches. Penrhos supplies an organic fruit and vegetable box on arrival, and there is an organic shop on site selling environmentally-friendly products, including organic foods, herbs and wines. The area is delightful all year-round and an excellent base from which to explore the border lands of England and Wales.

info@penrhos.co.uk

Tel: 01544 230720



How important is tourism?

SCALE

- **Tourism is the largest and fastest growing industry in the world.**
- **In 2000, there were almost 700 million tourists worldwide. By 2020 there are predicted to be around 1.6 billion.**
- **Travel and tourism accounted for around 11 per cent of world exports in 2000 – worth more than trade in food, textiles, or chemicals.**
- **There are around 2.1 million jobs in tourism in the UK, accounting for 7 per cent of total employment.**
- **In the UK, 15 million people take package holidays each year.**
- **80 per cent of UK holidays are booked as all-inclusive packages with just four companies**

IMPACTS

- **Each year, 5,000 hectares of the Mediterranean are cleared for new golf courses, each of which consumes more than 2.3 million litres of water a day.**
- **42 per cent of a hotel's energy use is for heating water, much of which is used on laundering guests towels day in day out.**
- **A passenger on a long haul flight accounts for as much CO₂ as an average motorist produces in a year.**
- **With most of the profits going back to travel operators based in the west, for every £100 spent on an average holiday in a developing country, only £5 remains in that country's economy.**

UK HOLIDAYS

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www.internationalbusinessschool.net/eco-lodge.htm

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www.lowerfarm.org.uk

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lizatom@fish.co.uk

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www.lowershawfarm.co.uk

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www.ionahostel.co.uk

www.lagandorain.com

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for photos and information

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On all of our holidays, ranging from African safaris to treks in the Andes and walks in the Spanish *sierras* to cultural journeys through India, the company employs local guides and tour leaders and uses decent, locally-owned hotels and guest houses.

Our clients are international and from all walks of life, and lasting friendships are often made on these tours. Single supplements are generally avoided, making these holidays ideal for the single traveller.

Strong environment policies and carbon compensation schemes mean these holidays won't cost the earth, and once again Guerba has been awarded the Association of Independent Tour Operators' top three-star responsible-tourism award.

With a range of accommodation styles – from overland camping to comfortable hotels and lodges, we have an adventure and discovery holiday to suit everybody's tastes.

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or email info@Guerba.co.uk www.guerba.co



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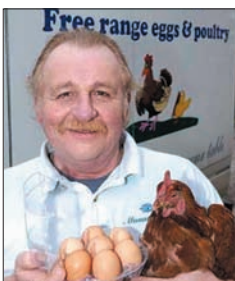
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PERSONALS



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To find out more visit www.brockwood.org.uk or contact Claire Little, Brockwood Park School, Bramdean, Hampshire, SO24 0LQ, UK. Tel: 01962 771744, Fax : 01962 771875, Email: enquiry@brockwood.org.uk

Founded in 1969 by J.Krishnamurti. Part of Krishnamurti Foundation Trust Registered Charity No. 312865

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offers short-term volunteer work overseas on Third World development projects. Cameroon, India, Nepal. Handicapped and village school projects. www.AidCamps.org

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BLUE VENTURES

is an award-winning not-for-profit organisation dedicated to enhancing global coral-reef conservation and research. We continue to offer opportunities and field experiences to volunteers wanting to become actively involved in marine conservation.



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campaign

DIRECTORY

Every month we'll bring you up to date information on a wide range of campaigns: how to contact them; what they need; and the progress they're making. And if you know of a campaign that we haven't listed below please email us: campaigns@theecologist.org

ANIMAL WELFARE

Save the albatross

With large numbers being killed by longline fishing boats, the albatross is heading for extinction. Birdlife International is campaigning for the implementation of international agreements to save the bird. Contact Birdlife International: www.birdlife.net/action/campaigns/ 01223 277 318

Say no to whales in captivity

Whales die in captivity all over the world: they are too large and accustomed to living in a vast habitat to survive in small pools.



Contact the Whale and Dolphin Conservation Society: www.wdcs.org 0870 870 0027

Stop animals suffering in live transport

Every week more than 10 million live animals are transported throughout the EU. The RSPCA is campaigning for tougher rules on maximum journey times.

Contact the RSPCA: www.rspca.org.uk 0870 333 5999

Buy sustainably-caught fish

The Marine Stewardship Council works to raise consumer awareness about the depletion of fish stocks. www.msc.org

CLIMATE CHANGE

Make carbon dinosaurs extinct

Britain's coal-fired power stations are some of the oldest and most inefficient generators of energy in the UK. Contact Friends of the Earth UK: www.foe.co.uk/campaigns/climate/

Stop BP's Baku pipeline

Join the regular protests against BP's Baku-Tbilisi-Ceyhan pipeline. Contact Rising Tide: www.risingtide.org.uk/

March to stop climate change

The annual march from Esso's UK HQ in Surrey to the US embassy in London to raise the political profile of climate change takes place on 15 May. Contact the Campaign Against Climate Change: 020 8855 3327 www.campaignagainstclimatechange.net

Make your church climate-friendly

Operation Noah provides resources and advice for getting parishioners more involved in community climate-care actions. Contact Operation Noah: www.christian-ecology.org.uk/noah 01252 849904

FOOD

Eat less meat

Compassion in World Farming is calling on the government to reduce UK meat consumption by 15 per cent by 2020, and urging consumers to buy only organic or free-range meat. Contact Compassion in World Farming: www.ciwf.co.uk 01730 264208



Adopt a McDonald's

Join the adopt-a-store campaign and get leafleting your local Golden Arches, letting the people who eat there know that a side salad does not a good corporation make. www.mcspotlight.org/campaigns/

Keep dangerous pesticides out of chocolate

Demand that chocolate manufacturers ensure Lindane, a pesticide banned in Europe and linked with breast cancer, is not used in cocoa production. Contact Pesticide Action Network: www.pan-uk.org/forms/lindform.htm 020 7274 8895

HUMAN RIGHTS

Get UK companies out of Burma

Contact the Burma Campaign to find out which UK companies support the dictatorship in Burma. Contact the Burma Campaign: www.burmacampaign.org.uk/ 020 7324 4710

Help Levi Strauss workers in Haiti

Write to Levi's about the treatment of union members at the factory of its sub-contractor Grupo M in Ouanaminthe, Haiti. Contact No Sweat: www.nosweat.org.uk 07904 431 959



End human rights abuses in Sudan

Call on the Sudanese government to end the abuses, including indiscriminate bombings, torture, rape, arbitrary arrests and abductions, committed by its armed forces in the ongoing civil war. Contact Amnesty: www.amnesty.org.uk/action/sudan/ 020 7814 6200

INDIGENOUS RIGHTS

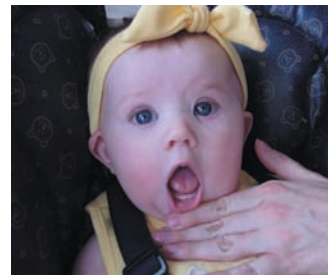
Support the Kalahari bushmen

Support Survival International in its work to stop the Botswana government's campaign to wipe out the Kalahari bushmen. Contact Survival International: www.survival-international.org 020 7687 8700

MILITARISATION

Stop investing in arms

The Campaign Against the Arms Trade's 'Clean Investment Campaign' asks arms company shareholders to consider alternative investments. Contact the Campaign Against the Arms Trade: www.caat.org.uk/campaigns 020 7281 0297



NUCLEAR POWER

Help expose low-level radiation

For 50 years the authorities have covered up the health effects of radioactive pollution. A new cluster of cancers has been found in North Wales. Government continues to ignore the risks from man-made fission products. Contact the Low Level Radiation Campaign: www.llrc.org 01597 824771

POLITICS

Boycott Bush

www.boycottbush.net tells you which companies fund George W Bush and the Republican Party, what products they sell in the UK and how you can buy alternatives. Find out more at www.ethicalconsumer.org or call 0161 226 2929



RESOURCES

Join a progressive debate about population

The Optimum Population Trust campaigns for ecologically sustainable population sizes in the UK and worldwide. www.optimumpopulation.org

TREES

Help restore the ancient forests of Scotland

Trees for Life is an NGO undertaking practical conservation work to restore the former Caledonian Forest in the central northern Highlands of Scotland. www.treesforlife.org.uk 01309 691292

IF YOU ARE A CAMPAIGNING ORGANISATION YOU NEED TO BE LISTED IN THIS DIRECTORY SO THAT ECOLOGIST READERS CAN CONTACT YOU...

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Make a donation, or sponsor a tree or a grove in any of Trees for Cities' projects in urban communities around the world. www.treesforcities.org 020 7587 1320

VIVISECTION

Ban animal testing

Get your MP to support House of Commons early day motion 738, calling for a ban on animal testing for household cleaning products. Contact the British Union for the Abolition of Vivisection: www.buav.org 020 7700 4888



Support alternatives to vivisection

Europeans for Medical Advancement works to discredit the flawed arguments behind vivisection and to provide scientifically valid alternatives. Contact Europeans for Medical Advancement: www.curedisease.com 020 8997 1265

WASTE

Recycle more

Find out where your nearest recycling facilities are, what you can recycle and how to encourage others to do the same. Contact: www.recycle-more.co.uk 08450 682572



Become an incinerator buster

Fifteen UK municipal waste incinerators burn 2.5 million tonnes of waste every year, producing a cocktail of toxic chemicals that can cause cancer, heart disease, respiratory problems, immune-system defect, increased allergies and birth defects. Contact Greenpeace: www.greenpeace.org.uk/ 020 7865 8100

Reduce, reuse and recycle

Leading national organisation promoting and encouraging action on the three 'R's - reduction, reuse, recycling. Contact Wastewatch www.wastewatch.org.uk 020 7089 2100

Increase awareness of the environmental impact of nappies

The Women's Environmental Network runs the Real Nappy Project to raise awareness about the environmental impact of nappies and to ensure that parents and adults with incontinence have a fair choice. Contact the Women's Environmental Network: www.wen.org.uk 020 7481 9004

WATER

Keep water safe from multinationals

Send a World Development Movement postcard to international development secretary Hilary Benn, urging him to 'pull the plug on water in Gats'. Contact the World Development Movement: www.wdm.org.uk/campaign/watergats/takeactiongats.htm 020 7737 6215

Resist the fluoridation of the water supply

Campaign to stop the government's forced fluoridation programme. Send a 'yellow card' to your local water authority demanding that it keeps your water fluoride-free. Contact the National Pure Water Association: www.npwa.freeserve.co.uk 01226 360909

Make the government spend more on clean water

Call on the UK government to increase aid spending on water and sanitation via: www.flushoutpoverty.org/ 020 7793 4523

HIT THE STREETS MAY

1 DUBLIN MAY DAY

Join the anti-EU festivities on the streets of Dublin, with Reclaim the Streets parties, street blockades and the chance to forge links with Irish activists.

For info on getting to and staying in Dublin, go to: www.geocities.com/eufortress or www.wombles.org.uk



1 CELEBRATE BELTANE AT THORNBOROUGH HENGE

Abbey Home Farm, Burford Road, Cirencester

Yorkshire's Thornborough Henge, the Stone Henge of the north, is under threat from quarrying. To raise awareness of the site's predicament, environmental campaigners are urging people to attend the celebrations there of the Celtic spring festival Beltane. The ceremony will begin at 2pm. www.friendsofthornborough.org



7 WOMEN'S ENVIRONMENTAL NETWORK • GLOBAL FOOTPRINTS AND KITTEN HEELS

FREE exhibition exploring chemicals in cosmetics, local food growing initiatives and waste prevention; ticketed evening debate 'Identity in a changing world: how women are affected by images in the media.' Regent's College, Inner Circle, Regent's Park, London, NW1 Tickets and details 020 7481 9004 www.wen.org.uk

8 THE SIXTH ANNUAL LONDON CANNABIS MARCH

March from Kennington Park, London SE11, (assemble 12pm) with floats, banners, costumes and samba beats, for an all-day free festival in Brockwell Park, London SE24 - licence permitting.

info@thecannabisfestival.co.uk www.thecannabisfestival.co.uk

10 THE HEALTH DANGERS OF GM FOODS CHAIRED BY ZAC GOLDSMITH

Featuring Michael Meacher and Jeffrey Smith author of 'Seeds of Deception: Exposing Corporate and Government Lies about the Safety of Genetically Engineered Food' 7-9pm The Meeting Place, 153 Drummond Street, London NW1 For details contact: 01803 863 260 or email amanda@greenbooks.co.uk

15 KYOTO MARCH FROM LEATHERHEAD TO LONDON

Starting at 7am outside Exxon-Mobil's UK HQ near Leatherhead in Surrey, this 20-mile march in protest against the Bush administration's refusal to ratify the Kyoto protocol ends outside the US embassy in central London. www.campaignccc.org 020 8855 3327 • 07903 316331

15 BABY MILK ACTION

NESTLÉ DAY, NATIONWIDE A national day of action against Nestlé malpractice.

www.babymilkaction.org/action 01223 464420



27-1 June TRIDENT PLOUGHSHARES PEACE AND DISARMAMENT CAMP, PLYMOUTH

Devonport Dockyard in Plymouth is home to the Ministry of Defence's Trident nuclear submarine refit programme. Join the Trident Ploughshares camp to campaign to rid Devon of nukes.

www.tridentploughshares.org/devnport/ 0845 4588363



28 CRITICAL MASS, LONDON

Campaign against the automobile's domination and blighting of the city by joining this go-slow mass bike ride on the last Friday of the month. Starts outside the café of the National Film Theatre under Waterloo Bridge, London SE1, at 6pm.

<http://cmlondon.enrager.net>

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PROS AND CONS OF WIND

I hardly think that wind farms are a suitable subject for a debate. The word 'debate' suggests that the arguments are almost equally for and against, and that is certainly not the case with wind farms.

Ann West of Country Guardian has probably not visited many wind farms, but I have – in six countries (the Netherlands, the US, Denmark, Greece, Wales, Northern Ireland and England). Not only do they generate electricity, but nearby residents are quite satisfied with them – even if they had objections at first.

West calls wind turbines 'industrial-sized blots on the landscape'. I find them things of beauty, and think that fossil fuel and nuclear power stations are the real blots on the landscape. But perhaps she prefers these facilities.

She also talks of the noise wind turbines make. Having stood directly under many and sojourned near others, I can say that they make no more noise than wind soughing through trees.

Those who object to wind farms are those who don't understand the words 'sustainable development', and who don't understand the role that renewable energy will play in saving our planet – if it can be saved.

**Dr Haris Livas-Dawes,
Kingston-upon-Hull**

Malcolm Tait ('Tilting at wind farms', March 2004) is wrong to conclude that the Royal Society for the Protection of Birds (RSPB) is anti wind farms. We recognise the threat posed by climate change and that generating energy from renewables is key to mitigating this, alongside



Do wind turbines provide an affordable means of harnessing a limitless source of clean power, or are they inefficient blots on the landscape that devastate wildlife and are more likely to exacerbate man-made CO2 emissions?

THE DEBATE
Alison Hill vs Ann West

Alison Hill is a former RSPB director and now a conservationist. **Ann West** is a former RSPB director and now a conservationist.

What price can be put on securing an electricity supply that won't cost the earth?

ALISON HILL
I'm not sure that the RSPB is anti wind farms. We recognise the threat posed by climate change and that generating energy from renewables is key to mitigating this, alongside greater efficiency and reducing demand. Therefore the RSPB supports wind farms; provided they do not threaten important bird populations and habitats. We believe it is entirely feasible for the government to meet its aspirations for wind-energy generation without causing serious problems for birds. It would be irresponsible of the RSPB not to help ensure it does so.

DR MARK AVERY, director of conservation, the RSPB

One can hardly blame the RSPB for wanting to protect birds. Renewable energy will do nothing to protect birds, sea life or the countryside from the devastation caused by economic growth and development. Even if 20 per cent of the UK's energy is provided by renewables by 2020, if economic growth continues at the current rate of 2.3 per cent (and a smug chancellor has just forecast 3-3.5 per cent growth for the next

Calling all Ecologists

I'm thoroughly impressed by the range of articles and depth of discussion in *The Ecologist*. By featuring such a variety of topics there's always plenty of new information and views to digest and assimilate, which leads me to my frustration.

I always read your magazine cover to cover, but I'm then left feeling frustrated that I don't know many people with whom to discuss what I have read. Sadly, many of my friends are not as passionate about the environment as I am.

What would be fantastic would be to build up a network of your readers across the country, organised through local groups rather like book groups. We could keep in touch by email and have the odd meeting to discuss topics. I'd be more than happy to coordinate a Midlands group. I work in Birmingham and live on its outskirts.

If you think this is a viable idea I'd be happy for you to publish my email address (Susieq707@hotmail.com) for people in the Midlands to contact me directly.

SUSAN JONES, STOURBRIDGE, THE WEST MIDLANDS

greater efficiency and reducing demand. Therefore the RSPB supports wind farms; provided they do not threaten important bird populations and habitats.

We believe it is entirely feasible for the government to meet its aspirations for wind-energy generation without causing serious problems for birds. It would be irresponsible of the RSPB not to help ensure it does so.

Dr Mark Avery, director of conservation, the RSPB

One can hardly blame the RSPB for wanting to protect birds. Renewable energy will do nothing to protect birds, sea life or the countryside from the devastation caused by economic growth and development.

Even if 20 per cent of the UK's energy is provided by renewables by 2020, if economic growth continues at the current rate of 2.3 per cent (and a smug chancellor has just forecast 3-3.5 per cent growth for the next

three years) the economy will grow by 40 per cent by 2020.

This will require far more energy than is saved by renewables and substantial changes in land use. Land-use changes have already contributed 35 per cent of increased atmospheric carbon dioxide.

A lower rate of economic growth, though less symbolic, would actually have more of an environmental effect than badly-sited wind farms.

Personally, I find birds and unspoilt countryside more life-enhancing than new suites and even larger television sets. I realise this view is not shared by all.

I fear that with politicians welded to the idea of continuing economic growth, and environmentalists and opportunistic developers convincing us of our moral duty to accommodate renewables, we will end up with chopped-up birds and ruined landscape and still fry anyway.

P Jones, Gloucester

**Send letters for publication to:
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Email: editorial@theecologist.org
The Ecologist reserves the right to edit letters as necessary**



We interrupt our regular programming for a moral advisory...

I'm the Reverend Billy



The Church of Stop Shopping has just returned from Barcelona, and we are convinced that part of Catalonia's ability to sustain a peaceful humanist politics is that THE STREETS ARE TOO NARROW FOR CARS. Hence, the souls of pedestrians drift sexily in those stone alleys with dress and sheet-draped balconies overhead. People stop and actually talk, without the ubiquitous bubble of glass and honking metal, and when people talk and listen to each other, things actually... HAPPEN

God in heaven, we need a place like Barcelona on this earth. We were so moved by this capital of Peace, with its liquid Gaudi stone and Dali clocks and Miro ganglia, we had to stop and really THINK.

We were met at the airport by 60 laughing radicals who wanted to go straight to a Starbucks. We had to shake-and-bake a sermon just to get to baggage claim. It went something like this: 'Our neighborhood is our body. And when our heart is cut out and a new heart is cut in, then our body accepts the new love muscle or throws a fit.'

I say it again children – STARBUCKS HAS COME TO BARCELONA!! That is pre-emptively preposterous – we were outraged. But then we thought, or were inspired with divine opportunity: 'Let us give the Green Mermaid With No Nipples the chance we would give a transplanted heart. Let's find out if our neighborhood, our body, will accept this foreign object. What does the immune system think? Let's have a test. LET US NOW EAT THE FAKE CAFÉ!! LET US TAKE IT INTO OUR BODY! LET US LICK IT!!!!'

And so we did. It was a breakthrough moment in our comic theology advancing toward us through a jet-lag fog; we knelt before the transnational corporate mermaid in the public square, as the mildly interested tourists and BOBOs (Bourgeois Bohemians) watched us go native.

We shouted LICK A LULIAH! LICK A LULIAH! LAM ER LULIAH! (Espanola) – and rushed the stage. We licked everything, really

EVERYTHING, including the cappuccino spouts and latte sippers' computers. We drank the steamed milk, and we sprayed Italian syrups into each other's mouths, treading dangerously near the brink of the food fight that the Goddess of Evolution always offers us as a bio-mutational escape to new life. After all, did not Darwin's finches change their bills in food fights, as the apostles have taught us?



'We licked everything, really EVERYTHING, including the cappuccino spouts and latte sippers' computers. We drank the steamed milk, and we sprayed Italian syrups into each other's mouths, treading dangerously near the brink of the food fight that the Goddess of Evolution always offers us as a bio-mutational escape to new life'

As we emerged from our saliva-contaminated chain store, I couldn't run or hide. My bad Elvis hair stuck out, and the cops saw the white suit (a preacher who wears the all-white suit, including white vest, white enamel shoes and white Bible, oh and white skin... they say 'Rev's got THE FULL CHICKEN').

So I stood there rooster-like with the Catalan police, but they were taking phone calls from headquarters, expressing disbelief on their faces. They were hesitating to arrest me. Our lawyer told us why: the fearful transnational chain stores in the area, so stranded here in this anarchic-city of fierce individuated Catalans, had all called the police.

They had ALL called the police, as the rumour of our worship licked its way up and down the

streets. It turns out that chain stores don't just look the same, they also manufacture the same fear – each manager told the police that we had been in their store too.

McDonald's called, and KFC, and another Starbucks. Franz Kafka was officiating. The police couldn't make sense of it, how were we licking in all these places at once? And so finally I was released to lick again.

I guess we LICKED THEM ALL.

LAM ER LULIAH!

Bill Talen's book *What Should I do if Reverend Billy is in my Store?* (New Press) is available in independent bookshops (if you see it in a transnational chain store, steal it). Rev Billy will be preaching in London in June. Visit www.revilly.com



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