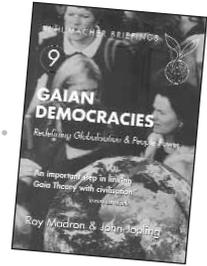


Book Reviews

Introducing a new model of democracy

JOHN BARRY

Gaian Democracies – Redefining Globalisation and People-power
Roy Madron and John Jopling
Schumacher Briefing no. 9 Green Books for the Schumacher Society, 2003
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Feasta members have written four Schumacher Briefings. This one, by John Jopling, one of Feasta's founders, and Roy Madron, an expert in systems improvement and participatory planning, investigates the kind of democracy required to enable human societies to make the many changes needed to achieve social justice and sustainability.

Imagine a democratic world as complex, adaptive and flexible as the ecosystems with which it interacts. It is made up of millions of engaged, active citizens connected together in a global network of democracies that transcend the nation-state, all organised around the twin goals of sustainability and global/social justice. Imagine further that the internal principles of the network are decentralisation, maximum diversity and 'people-power', which together operate as the organising principles of society characterised as a form of 'social learning'.

A pipe dream? Another form of 'green utopianism' or 'greenprints' for a future that will not happen? Well, think again. *Gaian Democracies* is a bold, innovative book that argues that in these times of increasing global economic and ecological disaster, the desirable is now the necessary.

The book embeds democracy in the complex natural and human systems in which the economy and polity are based. It not only takes on the forces organising 'globalisation' and shows their underlying principles and all-too-evident flaws, but, more importantly, it offers an alternative. Taking its lead and inspiration from the anti-globalisation slogan, 'another world is possible', Roy Madron and John Jopling offer a positive political agenda for an earth-based and human-scale democratic political project of renewal and systemic change. As they put it, "the Gaian democracy paradigm reflects our still-

growing understanding of concepts such as organisational dialogue and learning, soft-systems, cybernetics...complexity and chaos theory, symbiosis, inter-dependency and diversity and, of course, Gaia" (p.132).

Their explicit adoption of a 'systems methodological approach' to analysing the political, economic and environmental problems of contemporary global societies is innovative and a welcome addition to the emerging literature on the alternatives to globalised and globalising capitalism. This book demonstrates the utility and insights to be gained from seeing human societies, polities and economies from a 'soft systems' perspective.

Analytically, it adds an important distinction between 'wicked' and 'tame' problems. According to the authors, 'tame' problems are those that arise from linear systems, have definable outcomes and can be conclusively 'solved'. Examples of tame problems include getting rid of a computer virus, or putting a man on the moon – you know what to do and know when you've done it (pp.40-41). 'Hard systems' thinking and approaches – those drawing on engineering, technology and mechanics – are suited to such problems.

'Wicked' problems are of a different order and kind altogether. They are non-linear, have no definitive 'solution', or 'right' answer, are dynamic and change over time and as a result of

intervention. They cannot be defined clearly and “The problem-solving process ends when you run out of time, money, energy or some other resources – not when some perfect solution emerges” (p.42). The vast majority of the problems we face in the 21st century are ‘wicked’ problems which require ‘soft’ rather than ‘hard’ systems solutions and methodologies.

Now, a number of important conclusions follow from this (on the face of it) simple four-fold model – soft/hard systems thinking and wicked/tame problems. The first is that applying hard systems thinking to wicked problems will not only not work (and therefore be a waste of resources and time), but will in all likelihood only serve to exacerbate the existing problem and/or create new wicked problems. In short, applying a technocratic ‘solution’ to a ‘wicked’ or non-technocratic problem, or indeed approaching a complex, wicked problem using a ‘problem-solving’ (as opposed to a ‘problem coping’ approach or mentality) will fail.

In relation to the natural world, the authors rightly point out that, “Natural systems cannot be controlled with hard systems thinking” (p.57). Yet this is the dominant approach we find in (western) societies and its institutions in science, economics and politics. Examples of this vary from ‘technocratic’ approaches to ‘crime’ – such as the installation of CCTV cameras or issuing of identity cards, to increasingly medical and pharmaceutical approaches to health (including, worryingly, mental health). What is even more disconcerting is that the dominant paradigm prescribes that the solution to the problems caused by technocratic and ‘hard systems’ thinking is...more hard-systems thinking and technocratic approaches! Like the fabled lance of the Greek mythical hero Achilles, technology and hard-systems thinking are held to be able to ‘heal’ the wounds they themselves have caused.

The dominant ‘worldview’ or ‘paradigm’ for dealing with problems in modern societies seeks clear, definite ‘solutions’ rather than seeing a lot of the problems we face (especially ecological ones) as problems we cannot ‘solve’ or get rid of (due to their intrinsic complexity, interrelatedness and ‘fuzzy’ boundaries), but as ones for which we need to develop ‘coping mechanisms’. That is, we need soft-systems methodologies to cope and learn to live with ‘wicked’ problems and minimise their negative impact on human interests and well-being.

This raises a second important point – ‘hard’ systems thinking is closely associated with an elite, top-down, ‘expert’ based form of thinking and acting. It is generally non-democratic, whereas a soft-systems approach is implicitly democratic, amenable to bottom-up and participatory involvement of all those with an interest in the problem, not just those who have ‘expert’ knowledge. Wicked problems do not typically require ‘expert’ knowledge, but rather require knowledge gained from experience, an ability to learn from and with others and to be open to new ideas. And since knowledge is power (especially in our increasingly knowledge-based society), if the knowledge, wisdom and experience we need to deal with wicked problems is not the preserve of an elite, expert minority (which is not the say we do not need such hard-systems experts), then it follows that ‘people knowledge’ (or vernacular learning and knowing) is what we most need to deal with the vast majority of the problems we face. Democratic systems rather than non-democratic ones are more likely to be successful in dealing with the problems we face. This is where ‘Gaian democracies’ come in. As the authors rightly suggest, “the global-scale issues now facing the whole of humanity are all ‘wicked’ problems, calling for governments to tackle them through soft-systems approaches” (p.52).

In relation to the democratic project the authors outline, one of the many interesting issues they discuss is the vital importance of ‘liberatory leadership’, as an oft-missing piece of democratic theory and practice. While they rightly seek to reconfigure democracy as a form of self-organisation (rather than control) (p.35), they are also to be commended for explicitly recognising the centrality of leadership to any viable alternative democratic political project to ‘globalisation’. Too often, radical democratic thinkers and activists have shied away from the issue of leadership, wrongly associating it by definition with hierarchical, non-democratic or repressive/authoritarian principles or potentials. Yet, it is clear that effective democratic projects, whether one looks at it historically or in terms of the examples around the world today of successful democratic experiments, require effective leaders.

The authors cite some examples of liberatory leadership in the contemporary world, from the ‘participatory budget’ process in Porto Alegre in

Brazil, under the leadership of the Workers Party (pp.21-22) to examples from the business world – Visa International (pp.17-18) and the Semco Corporation (pp.18-19). Liberatory leadership is characterised by aiming to release and utilise ‘people power’ based on forms of dialogue, participation and learning between leaders and led. Indeed, it struck me how a lot might be learnt from the various innovative, ‘soft-systems’ (and therefore ‘democratic’) thinking and acting going on in the business world – not the first place I, and many others, I suspect, would think of looking for inspiration!

These democratic models see decision-making as a form of collective and institutional learning based on self-reflexive/recursive modes of organisation. They are thus in keeping with the innovative democratic and social scientific thinking associated with Jurgen Habermas and Ulrich Beck, with developments within ‘deliberative democracy’ and with work on the theory and practice of ‘greening’ democracy and active citizenship.

Don’t run away with the idea that the book simply seeks to develop attractive but utopian models. The authors discuss in great detail the origins, dynamics, principles and institutions/actors of *The Global Monetocracy* (Chapter 3) which they see as the main obstacle to the creation of a global network of Gaian democracies. Taking a systems approach rather than a conspiracy one, they offer a forensic analysis of this purposeful, elite-dominated network which controls the current neo-liberal project of destructive globalisation. The book argues that the debt-based money system not only gives financial institutions (such as the World Bank, the IMF and private multinational banks and other financial corporations) great power, but also acts to drive the global economic system as a whole towards ever-destructive economic growth. As they put it, “In systems-thinking terms, the growth imperative imposed by the debt-money system is a positive feedback mechanism – a vicious spiral” (p.71). We need negative feedback mechanisms (democratic political ones rather than financial economic ones) to change this.

However, it is not simply the global debt-based money system (and the dominance of the US dollar in the global economy) that needs to be tackled. From a ‘Gaian democratic’ perspective, we also need to change the ‘nation-state’ system

and the notion and practices based upon the foundational idea of ‘national sovereignty’. The reasons for this are many, but principal among them is the claim that “The principle of national sovereignty is inherently conflictual and competitive...under the cloak of national sovereignty, the nation-state provides the executive and legislative support required for the monetisation and corporate ownership of the entire human and natural worlds” (p.79). The continued existence of nation-states and ‘international non-society’ ensure that there is no democracy at the global level – which suits the global monetocracy perfectly.

Central to the continued existence of the corporate-state rule is the manufacturing of consent together, I would suggest, with the deliberate lowering of expectations by governments, something that is best exemplified by the Blair administration in the United Kingdom. As the authors put it, “Opinion-moulding has become the prime skill of both partners in the big business-government coalition” (p. 96). Equally, the active manufacturing of consent can be measured not just by active affirmation of state rule (through such mechanisms as elections – in which less and less citizens participate), but also by passive acceptance, and silence as opposed to ‘voice’. In the modern representative democratic world, sullen silence or even alienation from the political system is perversely counted as consent or even more perversely as happiness.

If there is one criticism I have of this otherwise excellent ‘primer for democratic thinking and acting’ it is the issue of agency and strategy. Simply put, I would suggest that the authors need to write another book outlining how they think their ideas could be put into action to help fulfil the promise that ‘another world is possible’. While they are of course extremely positive about the democratic resistance, energy and innovation that characterises the World Social Forum and what they call the civil society movement (CSM), as offering real hope in challenging the global monetocracy, they caution that “the evidence shows that the CSM is not, and will never be, capable of” making another world possible” (p.102). However, they do not, in my view, really offer a convincing or sustained argument to back up this statement, due perhaps to the fact that the chapter dealing with this issue is the shortest in the book (pp.99-106).

For example, I found it odd that while the authors have rightly criticised the failures of representative democracy as a systemic part of the problem, they then proceed to criticise the civil society movement (anti-globalisation/global justice movement) for failing to participate in liberal/representative democracy. They criticise the movement on the grounds that, "There is no discussion of even the possibility of founding powerful new political parties, fighting elections, winning office and forming governments with a mandate for fundamental economic and social change " (p.106). This would be to work within the existing political system, a reformist approach that they have elsewhere dismissed as inadequate to the task. Yet perhaps the authors are working with a too-narrow concept of the 'political' here, and fail to see the synergies possible between direct action politics outside the existing liberal democratic framework, and innovative, challenging methods of working with, in and through the institutions and practices of liberal democracy. Politics, especially democratic politics, as the authors will only be too aware, cannot be associated simply with elections, political parties and parliaments.

Another criticism I had was in relation to the connection between the democratic project they so eloquently articulate and the question of global/social justice. Perhaps this was more a failure of communication rather than principle (or perhaps in my own reading), but I did feel that a more nuanced approach was perhaps needed

in relation to the issue of distributive injustice. For example, the authors state that, "If 'everyone' is responsible for the problems generated by the system, then 'everyone' is also responsible, somehow, for helping to find ways of tackling them – a profoundly democratic implication" (p.38). However, this of course fails to note the 'injustice' at the heart of the global economic system – namely that it is clearly not the responsibility of 'everyone' for either the maintaining of the system itself or the social, economy and environmental problems caused by the system. The issue here is that of power, and the realisation that responsibility is in proportion to power. This means that the powerful, those with the money, political influence and cultural power bear the most responsibility, in terms of being the 'cause' of the problem. So while it may be that we all have our part to play in finding democratic solutions to 'non-democratic' problems, this is not the same as saying everyone is responsible for the problems of the system they are part of.

However, such quibbles should not deflect in any way from this excellent and important book. Indeed, since it is written in a spirit of dialogue and communication my comments should be read in a similar spirit, as someone who was both informed and more importantly inspired to continue the task of learning new ways of thinking and acting to cope with the global and local problems we face in the crucial decades ahead.

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How the media limits the range of public debate

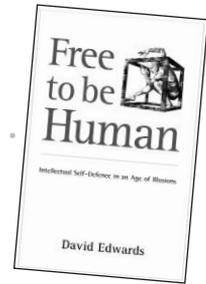
DAVID YOUELL

Free to be Human

David Edwards

Green Books, 1995

ISBN 1 87009 888 9 £9.95



Unconventional ideas find it hard to get mentioned in the mainstream media. A giant filter system keeps us uninformed, confused and, above all, passive.

For anyone curious about why things are the way they are in the world, this book is a good place to start looking for the answer. How we arrived at where we are today is another story, but why we seem so incapable of addressing with any great urgency the enormous problems now threatening humanity and, indeed, all life on Earth, is the subject of *Free to be Human*.

This is a book about the powerful forces working to keep the truth from us. It's about the giant filter system that ensures we remain uninformed, confused and, above all, passive, so that we do not notice the chains that keep us hitched to the goals of the powerful business and political elite in their feverish pursuit of the irrational values of corporate consumerism.

But this is not a book about consumerism. In an eloquently-made argument, it takes in philosophy, literature, religion, psychology, human rights and the environment, as well as politics and the corporate world, to support the central premise: that we are not free to do as we wish - only to do what is required.

Such a wide range of subject matter might give the impression that *Free to be Human* is a heavy tome but that's not the case. In under three hundred pages, David Edwards shows clearly and in a most compelling way, how the thought-control and disinformation processes of the totalitarian state envisaged by George Orwell, when he wrote his famous *Nineteen-Eighty-Four* (in 1949) are not only well-established in modern society, but are even more pervasive and insidious than Orwell predicted.

"Because the filter system acts to maintain a framework of beliefs that are essential to corporate capitalism but utterly superficial, inadequate and absurd as an answer to human life, the search for more adequate answers is limited, and effectively stifled as far as the majority of the population is concerned". In this reference to the framing conditions of society that keep us conforming, Edwards argues that not only do we not see the possibility of alternative answers, we don't even perceive that there is a question any more. We simply accept the *status quo*, as being how life is.

What exactly are these 'framing conditions' that keep us so meekly subservient, like donkeys lashed to a treadmill?

David Edwards draws widely on the work of other authors and thinkers in constructing his argument, including Noam Chomsky and Edward Herman's *Manufacturing Consent* in which the authors propose a hypothesis which they call their 'propaganda model'. This model concerns the way the media works to mobilize support for the special interests of the state and private sector elite, while marginalising thoughts and actions that are less supportive, or opposed to, such interests.

The model is not just about the capability of dominant interests to lightly influence the general direction of the media, which undoubtedly is a distinct possibility from time to time but is, in fact, a "dramatically-effective system of control" by which those dominant interests manipulate media behaviour to ensure it only serves their goals and objectives. It is a far tighter system of control than anything imagined by Orwell.

A key point of his proposition is that the system is facilitated by, and only possible due to its invisibility. It is perhaps the ultimate security system: because it has every appearance of complete freedom, very few feel any need to challenge it!

The transparency of the control system is central to Edwards' argument. Most people would accept that there is at least the possibility that those with power in politics and business - including the media business - could exert influence over what appears or doesn't appear in the media. But no one would believe that everyone working in newspapers, in radio and television stations all over the world, is part of a huge conspiracy to misinform.

And of course, there is no conspiracy. And journalists and editors everywhere robustly refute any suggestion of bias or influence whenever it is made. 'No one tells me what to write!' they protest loudly. But no one *has* to, Edwards would argue. The system takes care of it.

To try to explain how the system works, the author returns to an old chemistry experiment used in schools to show how crystalline structures like snowflakes form almost perfect, symmetrical shapes without any apparent control or design. Basically, it works like this.

If you place a square frame like a box lid, on a table, and pour over it a stream of tiny balls, it will eventually and inevitably create an almost perfect pyramid shape. This is because the most stable resting position for each ball is one that contributes to the structure. Those that settle like this, build, while those in less stable positions either move to a more stable position or bounce out. No one is in control. The pyramid shape is simply the inevitable outcome of the framing conditions of round objects falling onto a square frame.

The experiment is a good analogy for understanding why certain ideas and their promoters are strongly supported by the media, while others barely feature. Given the fact that for the most part, the media institutions have themselves become part of BigBusiness with shareholders to satisfy, and advertisers to court, they must support the framing conditions of maximised economic growth fuelled by mass production and by mass consumerism - in order to survive.

As news and information and ideas and people are constantly poured over this economic framework, the ones that support the framing conditions stick, and those that don't, disappear off the radar. It's as simple as that.

Returning to the question posed at the top of this review - why are we so incapable of addressing the important issues of our day - readers may now see that the media corporations have no interest in investigating the root causes of the serious problems facing humanity, such as ozone depletion, global warming, famines, drought, disappearing resources and so on, because that would mean questioning the framing conditions of our society, which would threaten the structure of the pyramid, effectively attacking the ground upon which they themselves stand.

Instead, the 'news' we get is at best a distorted version of reality, and at worst it can be nothing short of lies. And the whole illusion is kept in place by a series of reality filters that make sure there is no critical thought or deep questioning, or even doubt expressed about the sanity of the framing idea that puts the economy before society. Money before Life.

These filters include the size and concentrated ownership patterns in the media. Anyone can start a newspaper of course - if you happen to have a few million to spare. In other words, the huge investment needed acts as a barrier to new outlets for alternative voices coming on stream.

Then there's advertising. Advertisers have extraordinary power to influence what gets in and what's left out. And they use it. Or threaten to use it, which often is enough.

Government and corporate bodies have deep pockets when it comes to the distribution of promotional material, so the source of news also constitutes a filter. As the focus is increasingly on the media business's bottom line, costly news-gathering resources have become thin on the ground so there is an ever-heavier reliance on PR hand-outs. In December 2003, an academic research project in the US found that 40% of news content there comes from PR sources.

Then there's flak. Flak comes in many shapes - letters, phonecalls, speeches, petitions, publications, even law-suits. Just as state and corporate power tend to assist supportive media, the same flak machines aim to undermine unsupportive media.

And finally, the creation of an 'evil' of one sort or another. At one time, communism was enough to justify political or corporate behaviour abroad, or control critics at home. In another era the 'savage' Red Indians, or the treacherous British would have been a convenient *bête noire* to keep us believing the story. And, haven't we heard a lot about a certain war on terror in recent times?

All of these reality filters work to distract ordinary people from asking awkward questions, and ensure that we conform to the framing conditions of society, and stay in buying mood.

Edwards suggests that our assumption that we live in a free democracy goes unquestioned for the same reason as does our understanding of what we mean by freedom and democracy. And we don't truly know, because this assumption is never questioned - publicly. And therein, the author suggests, is a general law of social life: wherever we find an unchallenged social goal, we are in the presence of a great lie, supported by power.

Why should we care about any of this?

The link between media behaviour and the

sustainability issue is absolute but inconspicuous. As the willing cheerleader for BigBusiness and its goal of economic growth without limits, business and the media need each other. And those of us who are interested in changing the gameplan need to be acutely aware of the distortion this alliance creates in every aspect of our lives, that results in a constant sidelining of the core issues concerning sustainable living.

In David Edwards's words, we need to "master the art of intellectual defence, if we are to challenge the deceptions of a system that subordinates people and planet to the drive for profit."

Free to be Human contains many powerful ideas. I have merely sought to focus on the central issue of the role the media plays in maintaining the illusion that we are free. But as the author of this thought-provoking work reminds us, there is often no greater obstacle to freedom than the assumption that it has already been fully attained.

This is a wonderful, informative and absorbing book. I cannot recommend it highly enough.

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MediaLens

David Edwards runs MediaLens, a media watchdog service, with David Cromwell, the author of *Private Planet*. MediaLens' subtitle is "correcting for the distorted vision of the corporate media" and it issues an excellent e-newsletter reviewing current British newspapers and television. www.medialens.org

From economic aristocracy to economic democracy

ADRIAN MACFHEARRAIGH AND CATHERINE ANSBRO

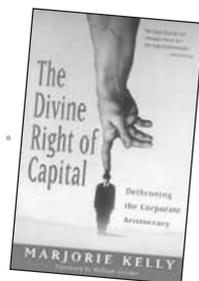
The Divine Right of Capital - Dethroning the Corporate Aristocracy

Marjorie Kelly

Berrett-Koehler Publishers Inc., 2001

ISBN 1 57675-125-2 (hb) £18.99

ISBN 1 57675-237-2 (pb) £13.99



The corporate sector is the most powerful human force shaping the world. Who takes its decisions is therefore of crucial importance. So why does almost everyone accept that shareholders have the sole right to do so? asks the 2003 Feasta lecturer.

Before communities around the world can become sustainable, business practices must become *democratic* rather than *aristocratic*. That is the main message of *The Divine Right of Capital*, an excellent analysis of the way the business and economic systems operate and how they can be improved.

The book's author, Marjorie Kelly, has a long history of involvement in the economics of sustainability. She is the cofounder and editor of *Business Ethics*, a U.S. magazine that has focused on new approaches to responsible business practices since 1987.

In the course of her editorship, though, Kelly has changed her mind about how such practices can become established most effectively. Initially she believed that change would come about because progressive businesspeople were voluntarily transforming capitalism by supporting corporate social responsibility, which entailed actions such as better environmental stewardship, family-friendly policies, employee profit sharing and good corporate citizenship.

However, after monitoring a decade of this type of 'change', Kelly saw that it was merely cosmetic. While acknowledging that some visionary business founders had brought about important changes in a small number of firms, these progressive practices quickly died out once the business was sold on. Moreover, these few responsible businesses were not bringing about systemic change within the general corporate community, which continued following the goal of maximizing profits for shareholders, regardless of the impact on employees, the environment or the public good. Kelly became convinced the problem was systemic, the result of historical and legal factors. She now believes that deep and lasting change in business

practices will not come about until we change the legal factors that guide how businesses operate. *The Divine Right of Capital* outlines these factors and shows the way to bring about real, deep-down change in business practices and in local and global economies.

For example, the book emphasises the overwhelming influence that "fiduciary duty" has on a way a company is run. Currently, in Ireland as elsewhere, this "duty of trust" placed on a company's management is almost always limited to maximizing financial returns to the shareholders. Other parties linked to the company—employees, environment, and local and global communities—are not considered except to the extent that a failure to act would risk financial liabilities that would reduce shareholder profits. Thus, as the law stands, if boards of directors were to consider factors like employee well-being, environment, or public good in their decision-making, rather than shareholder profits, they could be sued by shareholders for not upholding their duty of trust in looking after their financial interests. As a result our present style of accountancy only evaluates financial bottom lines and profits. This has created a system that ignores the full impact of business activities.

Kelly points out that this current system is fundamentally aristocratic and inherently undemocratic in nature, a holdover from medieval times. She gives a fascinating presentation of the social structures, privileges and power held by the elite ruling class in Medieval Europe. Throughout the book she builds up a compelling comparison of our present system of wealth distribution, commonly called economy, and the social system of Medieval Europe. This comparison gives rise to the recognition that our current system is an Economic Aristocracy.

According to Kelly, this Economic Aristocracy has six principles:

- i) **worldview** – it aims to pay shareholders as much as possible and employees as little as possible;
- ii) **privilege** – shareholders, just like nobles, claim wealth they do little to create;
- iii) **property** – a corporation, like a feudal estate, is a piece of property, not a community, and can be owned and sold by the propertied class;
- iv) **governance** – corporations have an aristocratic governance structure which implies that those who own the corporation are the only group entitled to vote on decisions determining the future of the corporation;
- v) **liberty** – this is preserved for the property owners only;
- vi) **sovereignty** – corporations assert they are private and the free market will self-regulate them, just like barons asserted they were independent of the Crown.

Kelly shows that since medieval times, laws permitted change from a political perspective but not from a wealth one. As a result, laws governing economic and business behaviour continue to preserve age-old wealth inequalities. So, while in the political sphere, aristocracy was eclipsed by democracy, the world of wealth and property has remained untouched. As a result, while we would never tolerate medieval practices in our current political system (imagine “King Bertie” ruling by divine mandate, without public representatives or elections), we have not recognized our economic system for what it is: *an historical anachronism of an inherently aristocratic nature*.

Kelly therefore proposes that our economics must become *democratic*. This is what will bring about systemic changes that support ethical businesses. She proposes six principles of Economic Democracy to counter each of the six characteristics of the Economic Aristocracy:

- i) **enlightenment** – all persons are created equal and therefore the economic rights of employees and the community equal those of the owners of capital;

- ii) **equality** – the wealth created by a company does not only belong to its shareholders but to all those who create it. Community wealth (e.g., natural resources) belongs to us all;
- iii) **public good** – public corporations are more than pieces of property or private contracts, they have a responsibility to the public good;
- iv) **democracy** – a corporation is a human community and like the larger community of which it is a part it is best governed democratically;
- v) **justice** – the wealthy may not claim greater rights than others and corporations may not claim the rights of persons;
- vi) **(r)evolution** – just as the people have the right to alter or abolish government it is equally their right to alter or abolish the corporations that now govern the world. Kelly puts the ‘r’ in brackets as we have done to emphasise that this principle is an evolution with the spirit of a revolution.

Kelly points out that our unquestioning attitude towards the current system is a major factor holding up our progress to a more sustainable future. In medieval times no one questioned the right of the king or the aristocracy to rule, or their right to collect taxes and other wealth from the peasants and/or middle classes who created it. Everyone just accepted that this was the divine right of the monarchy. In a similar way, we have accepted without question company laws that enshrine the rights of the Economic Aristocracy to create more wealth for themselves that is not of their own making.

Kelly’s book presents eye-opening facts from up-to-date sources and is so interesting that we both found it hard to put down. Moreover it is beautifully written in a style that makes it a very easy read for general readers and economists alike.

Pointing out the changes in business law that have recently been made in Europe and some states in the USA, the book will provide its readers with important information about the legal changes we need to focus on politically in order to create a culture of responsible and sustainable business activity. It equips us to embark on a journey to install democratic principles and breathe life into the heart and soul of a new kind of economy.

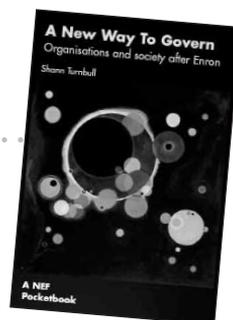
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Adrian MacFhearraigh lives in Donegal and has a background in electronic and telecommunications systems design. He is an active Donegal Green Party member committed to developing ideas, policies and technologies to benefit dynamic, sustainable, high quality human lifestyles.

Transforming 'top-down' corporations into democratic networks

PATRICK MANGAN
AND ANNE BURKE

A New Way to Govern - Organisations and Society after Enron
Shann Turnbull
New Economics Foundation
ISBN N/A £4.99



The more complex a business becomes, the more important it is that it adopts a complex, devolved governance structure that enables its staff to manage without a central direction. Just like the human body, in fact.

The collapse of large and apparently sound corporations such as Enron, which at one time was the world's biggest energy trading company, illustrates that severe problems can arise with the command and control management structures which are the accepted norm for large organisations. Dr. Shann Turnbull is best known for his book *Democratising the Wealth of Nations* which advocates employee share ownership and land trusts¹. In his new book, Turnbull, the principal of the International Institute for Self-governance and an Australian with a Harvard MBA, applies his knowledge of governance to analyse the failures of management and accountability in what he describes as "top-down" corporations. He identifies three fundamental weaknesses in their structure:

- The tendency of power to corrupt when it is concentrated in a few individuals.
- The difficulty in managing complexity, particularly as an organisation grows.
- The suppression of normal human checks and balances, supposedly for the benefit of corporate efficiency.

Turnbull suggests that new forms of organisation are needed to avoid these pitfalls and that the solution may lie in "network governance", where power, responsibility and decision-making authority are delegated to those best positioned to decide. He believes that organic organisations with the ability to self-replicate and self-manage may hold the key to resilience and robustness,

attributes which Enron manifestly lacked.

Organisational networks such as the human body link diverse and competing systems by maintaining the functions of each component while preventing the domination of any one component over the others. Built-in feedback loops and the limits imposed by competing systems ensure that the sum is greater than the parts. Turnbull argues that if a highly complex organisational structure like a human can be managed effectively by its component systems then this model should provide some lessons for good corporate governance. He also compares organisational networks to the way ants work through complex networks without a CEO and yet can achieve extraordinary results.

The version of the capitalist system which developed after World War II in a period in which environmental issues were not a concern, is neither equitable, ecologically sensitive nor efficient. This may be partly due to the management theories upon which it is based. Much of today's command and control theories are based on colonial practices, which are totally inappropriate in the 21st Century.

According to Turnbull, the unitary board of directors of a large corporation has absolute power over the organisation which the directors are meant to serve. They both set and mark their own exam papers, which hardly bodes well for shareholders or the public. It is "the directors who determine the size of profit which the company reports, irrespective of whether the

¹ The complete text can be downloaded from <http://cog.kent.edu/lib/TurnbullBook/TurnbullBook.htm#1%20%20%20%20Introduction>

financial reports conform to accounting standards”.

Since the value of many assets are assessed subjectively, current accounting procedures are sufficiently flexible to allow accounts to be manipulated. Profits are therefore based on subjective assessments of value. So are liabilities, which must raise serious concerns about the value of accounting and audit procedures if deception is part of corporate culture. The integrity of auditors must be compromised if they are hired and fired by the directors on whom they are reporting.

Even when the directors have been shown to have “failed the exam” they may not be accountable to the shareholders as they also control the annual general meeting. Turnbull goes on to say that “the reliance of governments and regulators on non-executive directors to protect investors, or even creditors, is naïve and dangerous”.

He notes that various attempts at reform were made in the 1990s by Cadbury, Greenbury, Hampel, and Turnbull himself. However, he feels these reforms were inadequate and although widely promoted around the world, merely lull minority investors into a false sense of security.

Turnbull suggests that current company design can be corrected by making focused changes. The basic steps he suggests are:

- Establish stakeholder panels
- Establish a stakeholding council to bring together different stakeholders into one forum
- Establish a senate to act as arbiters
- Set up a community governance board representing the “unofficial” stakeholders.

The structure Turnbull proposes is more complex than conventional structures and he suggests that the more complex a business becomes, the more it needs a matching complexity in its governance. Among his proposals are:

- Businesses should become self-financing as the current capitalist system over-rewards investors.
- Equity investors should be phased out
- Replace shareholders by members reflecting stakeholding interests
- Accounts in general contain too little information, due to compression of data.
- Don’t police, transform

He illustrates the way that these panels, councils and boards can work together in practice by profiling Visa International, the Spanish co-operatives controlled by the Mondragon Corporacion Cooperativa (MCC) and the loose conglomerations of companies called keiretsu in Japan which organize around a single bank for their mutual benefit. The companies sometimes, but not always, own equity in each other.

While Turnbull’s proposals are a distinct improvement on current corporate management practice, they are only a starting point for the development of more democratic organisational structures. For example, he still acknowledges the role of the managing director and board of directors and fails to suggest that they may not be appropriate in a truly democratic organisation where authority is delegated to a well educated staff capable of managing a complex and diverse structure without a central authority directing operations. The book also fails to develop his suggestions on self-organising institutions, on the amoeba-like splitting of enterprises when they grow too large, on decentralising of decision-making to staff, and on the development of corporate or staff learning networks.

So, while the book suggests changes to the present management and governance structures of large corporations, it fails to design a new governance structure.

Overall, though, it is a rewarding book which will stimulate your thinking on what companies are about, who they exist to serve and who should benefit from organisational profits.

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Dig where you stand: a message of hope

NADIA JOHANISOVA

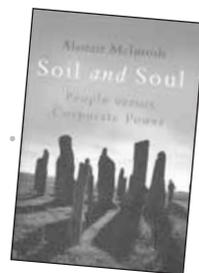
Soil and Soul: People versus Corporate Power

Alastair McIntosh

Aurum Press, London, 2001

ISBN 1 85410 802 6 (hb) £17.99

ISBN 1 85410 864 6 (pb) £12.99



Traditional cultures were ways which communities had developed for living sustainably in their own place. They still have great relevance today, as a Scottish philosopher and campaigner found.

Alastair McIntosh (b. 1955) is difficult to pigeonhole. Is he primarily an activist, championing the cause of Hebridean islanders against absentee landlords and battling superquarries? An academic lecturing about human ecology? Or is he really deep down a mystic who gets his strength from old Celtic whorls, sacred wells and the roaring of the sea?

In fact, as you will find when you read his book, he is all these things and more, which is what makes the book so interesting. He starts off with a vivid account of his own childhood on the Isle of Lewis in the Outer Hebrides. The local doctor's son, he grew up with a leg in two worlds - the world of his parents, who groomed him to blend with the "higher classes", and the world of the local fishermen and crofters, whose vernacular economy was just beginning to fade. He describes in what to me is the most moving part of his book, the traditional culture of the islands with its complex ecological and social links. Nutrients were recycled through composting human and livestock waste and, in the oldest houses which had no chimneys, even the soot caught in the thatch went back to the fields each spring. He does not idealise the old days. They were hard. But at the same time, a complex "alternative economy" system of mutuality, reciprocity and barter ensured social security, and work was interwoven with song and even dance in a way difficult to imagine today.

With the advent of modernity, this system began to unravel. In one of the most poignant passages of the book, McIntosh describes a recent conversation with an old islander who still weaves fabrics on his old hand loom. He had asked him why he does not sing as he weaves:

"Ah well...there was a time when I was younger and you'd hear somebody walking through the village singing to the rhythm of your loom as they went past. And then when they'd get a bit further on and pick up a different loom's rhythm, they'd change the song to suit that one."

"So why not now, John? Why do you never hear people singing when they're weaving?"

"Oh well...we'd be embarrassed! People expect it to sound like it does on the radio or television now, and if I started singing they'd laugh."

Music is a recurring theme throughout the book. So is Scottish history. McIntosh describes his own gradual awakening to the reverberating impact of the defeat of Gaelic culture at Culloden and especially of the Highland clearances, whose importance was played down in his school days not only by his teachers, but by the islanders themselves.

"What are these ruins really, Tommy?" he asked one day in the mid-seventies as he walked around a group of deserted houses in Lewis with his friend, who served as head stalker for the rich hunters who came to the island to shoot. "Just something from the old days." And he went very quiet. It felt inopportune to enquire again.

One of the most important insights of this book is the tracing of intergenerational and international impact of traumas such as the Highland clearances, which involved the eviction of half a million people from their homes in the nineteenth century to make way for sheep. Those who lost their roots in this way had several choices. Either they could emigrate to America and in their turn help to evict the native people from their lands. Or they could retain a vestige of their warrior culture by becoming soldiers. The

irony of the Highlander regiments quelling “mutinies” in India becomes painfully obvious in this light.

As a third choice, these people could migrate to the big cities and become a kind of “cannon-fodder” for the Industrial Revolution, and McIntosh speaks of the descendants of evicted Highlanders still living in squalor in Glasgow tenements today. The burden of cultural trauma often leads to internalisation of the blame for what happened and may erupt into lateral violence - violence against friends, family, or oneself. As the author emphasises, this is not a phenomenon confined to Scotland. In fact, his own understanding of the dynamics of power and powerlessness in Scotland was sharpened through his conversations with local people in Papua New Guinea, where he worked on issues of land ownership in the rainforest.

This dynamic of power and powerlessness is another important strand in the varied tapestry of Alastair McIntosh’s book. In a chapter entitled “By the Cold and Religious”, he discusses the role of Calvinism in shaping the values and exploits of the emerging British Empire. As in other parts of the book, he complements this with his own experience as a young boy:

...At other times kids were thrashed for not knowing their religion. This punishment was undertaken with the tawse - a thick leather strap with two fingers of fizzing fire. The more sadistic teachers carried theirs around like a holstered gun under the jacket...

Between the two world wars, children in Lewis were punished for speaking their own language, Gaelic, in the school playground. In this, as in many other places throughout the book, an analogy with the plight of Native Americans is apparent.

The Circle is broken and I cannot raise a tune
The faeries have left and they will not return
When the faeries danced on the land the Circle
was whole
And then you could raise a tune

These words were composed and sung in Gaelic by an islander after he had seen American Indians on television speaking of their culture as dying because the Sacred Circle had been broken.

It is with recapturing the sense of the sacred, the “real religion” which survives in the taproots of Gaelic culture and in our hearts as well that a

large part of this book is concerned. In a crucial chapter entitled “The Womanhood of God”, McIntosh attempts to disentangle this authentic spirituality from the “cold” aspect of religion in collusion with worldly power. This authentic religion has more in common with “mythos”, the world of feeling, metaphor, poetry and story, than with “logos”, which embraces logic, reason, causality and explicit order. We can find it in the teachings of Jesus as well as in parts of the Old Testament which, however, are seldom chosen as sermon subjects. While both mythos and logos are necessary if we wish to understand the world and change it for the better, our culture with its emphasis on the latter has damaged logos itself from lack of a nourishing context, and it has become a desiccating parody of what passionately fired-up reason could actually be.

McIntosh was working at the Centre for Human Ecology at Edinburgh University when he became involved with two important Scottish campaigns in the nineties: The Isle of Eigg Trust campaign, which eventually succeeded in wresting this small Hebridean island from feudal into communal ownership, and the struggle to protect a mountain on the Isle of Harris from being turned into a gigantic superquarry. This latter campaign has been successful so far, although as the book went to print, success was not yet certain, and there is now talk of pressure to open a similar superquarry elsewhere in the Scottish Highlands.

Activism propelled McIntosh to deepen his own spirituality. It led him to see activism as a kind of latter-day shamanism, involving an ability to ‘step outside of existing social programming to glimpse a wider panorama and new options...[see] where consensual reality has become dysfunctional...[and step] into the “world” again, to sound the alarm, to nourish growth and to point towards cultural healing.’ He studied liberation theology and Celtic Christianity and he returned to the islands of his childhood as a pilgrim, fishing ‘near-forgotten fragments of history from long-overgrown pools of local knowledge’ to understand the stories behind the mountain he had set out to save.

In the process, he found new leverage and strength for his struggle and developed a strategic framework for activists who might otherwise either ‘sell out or burn out’. Seeing the wider context of your struggle is essential, he says: ‘Never be so vain as to expect to reach the

stars, but do set your course by them.' An important guiding star for him is the reconstruction of a co-operative society with people linked to the land and to each other through responsibility and respect, such as the one he had been privileged to witness in his childhood.

Spirituality proved a potent ally in the struggle to put a stop to the superquarry plans at Harris. Stone Eagle, a leader of the Mi'Kmaq' Indian Nation who was himself involved in campaigns against superquarries in Nova Scotia, was persuaded by McIntosh to fly to Harris to testify at a public enquiry about the feasibility of the project. A description of the interaction of the media and the people of Harris with Stone Eagle makes gripping and sometimes humorous reading. Another dimension was added by the Calvinist theologian Donald Macleod, who spoke at the inquiry of the need to honour God's creation. 'Do we have God's mandate to inflict on Creation a scar of this magnitude that might detract from Creation's ability to reflect the glory of God?' he asked. The speeches did not impress the inspector in charge of the enquiry, but they had an impact on public opinion, especially in Harris: many islanders stopped supporting the project after hearing them.

According to the book, it was McIntosh's activism which led to the "eviction" of the Centre for

Human Ecology from Edinburgh University in 1996. The description of this bitter fruit of his struggles and of the recent progress and aftermath of his campaigns in the last few chapters is perhaps too tedious and detailed, thus diluting what would have otherwise been a well-blended cocktail of past and present, myths and logos. At its worst, the book tends to slip into a hard-to-believe visionary optimism ('Even when you're losing the battles...you'll invariably end up winning the war').

However, it remains a powerful, well-written and well-researched book. McIntosh is a courageous and independent thinker who has taken his own advice to 'dig where you stand' and dredged up treasures as well as monsters from the mud of Scottish and Gaelic history. He forges new links between activism, spirituality and traditional culture and adds seasoning in the form of his own experience, sharing his mistakes and doubts along the way. At its deepest level, this is the book of a rebel. Let us understand our own true history, our own true religion and our dreams, he seems to be saying, in order to have strength to change things for the better. Only then will the salmon return. Significantly, the salmon, which no longer returns to dammed streams in Lewis, is, of course, a symbol of spiritual knowledge in Celtic mythology.

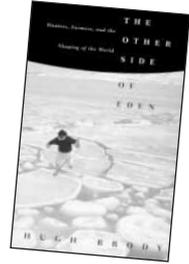
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The mistaken turning on humankind's path

Jonathan Dawson

The Spell of the Sensuous
David Abram
Vintage 1996
ISBN 0 67977 639 7 £14.00

The Other Side of Eden: Hunter-gatherers, farmers and the shaping of the world
Hugh Brody
Faber and Faber Ltd 2000
ISBN 0 57120 502 X £9.99



The way our ancestors regarded the world may have a lot to teach us about where, and why, our thinking went wrong and how it can be corrected. We need to feel as much a part of nature as they did.

A man leaves his home in American academia to immerse himself in the world of shamanism in Bali and Nepal. After some time, he finds himself becoming ever more deeply immersed in the natural world. Encounters with condors, with spiders, with rocks and grasses, recounted in spell-bindingly beautiful prose, are full of meaning to him. His habitual feelings of duality – of self set against other, of humankind set against the rest of the natural world – are progressively dissolved. In a fundamental sense, he feels himself to have truly come home.

Then, he leaves Asia and returns to the country of his birth. Within a short space of time, his feelings of oneness with the world around him evaporate and he finds himself once again back in a primarily man-made environment, looking out at the rest of creation as a stranger.

What happened? If the state of non-separation and identification with the natural world, apparently so accessible to our aboriginal ancestors and neighbours, is our natural state of being, how did he so easily lose it? Further, how have we collectively as a species so easily lost it? These are the great questions at the heart of David Abram's *The Spell of the Sensuous*.

All the tracks he follows, and there are many, lead him to what he posits to be the single most important technological innovation our species has achieved: the phonetic alphabet. Drawing on extensive anthropological literature, he demonstrates that the way oral, pre-literate

cultures experienced the world is radically different from our own. To begin with, time was (is) experienced as cyclical in nature, with great, repeating mythological stories defining the cycle of the year. No meaningful distinction was made between time and space. Story and meaning derived from and were tied indissolubly to place: the body of wisdom developed by a community, often in the form of songs and stories, represented its store of wisdom on how to live well and sustainably in its own, unique place.

Then, in the wake of the agricultural revolution, as human societies grew in size and complexity, scripts emerged. At first, the symbols were clear representations of the natural world (Egyptian hieroglyphs, Chinese ideograms). However, the trend was towards ever-greater abstraction and the Jews (the People of the Book) became the first people to develop a phonetic alphabet, largely (but not completely) divorced from reference to the non-human world.

With the development of widespread literacy among the Jews, 'a new sense of time as a non-repeating sequence (of events) begins to make itself felt over and against the ceaseless cycling of the cosmos' and history was born. Written down and thus recountable at will, stories become divorced from specificity of place. And between people and their earthly environments is inserted a human artifact that bears no direct relationship to the non-human world – the alphabet. The natural world becomes an object of (progressively more abstract) study rather than the sensuously experienced root and locus of all being. And the

illusion of separation of people from the rest of the natural world grows apace.

And then there is the breath, the means by which humans participate in the great intermingling with all other beings in the all-enveloping air. For aboriginal peoples, Abram shows, the air is the sacred and 'thoroughly palpable medium in which we (along with the trees, the squirrels and the clouds) are immersed'. He suggests that the sacredness of breath for the Jews is the reason why their alphabet includes only consonants, the vowels being the breathed, sacred spaces between, the very name of God, the ultimate mystery.

When the Greeks adopted the Jewish alphabet wholesale and, not having the spiritual sensitivities of the Jews, introduced letters to represent the vowels, the last gap through which the natural world and a sense of the sacred might breathe is closed off. The alphabet becomes entirely airtight and self-referential. Now, humans can relate to each other and reflect on the world around them without any reference to the source of what was, for our aboriginal ancestors and neighbours, the source of all life and meaning – the sensuous earth.

Here, Abram introduces his most radical and exciting idea. For the pre-literate Greeks of Homer's time, the term *psyche* referred, in the words of the Milesian philosopher, Anaximenes, to the 'breath and air (that) hold together the entire universe and give it life'. By the time of Socrates (who lived at the beginning of the period of mass literacy among the educated classes in Greece), *psyche* has been isolated and imprisoned within the individual, human skull; the source of 'mind' is enclosed and privatised, and man left alone and lonely, cut off from the natural world and the great enveloping mystery. (Here, another pearl of poetic insight: the melancholy of exile that fell over the Jews and that remains with them still, suggests Abram, attaches itself not just or even primarily to the fact of physical exile, but rather to a much more deeply felt exile from the sensuous earth imposed on them by their adoption of the alphabet.)

For Hugh Brody too, in *The Other Side of Eden*, the Jews were centre-stage at the pivotal moment of our dislocation from the natural world. He describes Genesis as the farmer's version of history in which humans are forever exiled,

cursed to bear children in pain but instructed to multiply, dominant over animals and the rest of the world but struggling to survive on harsh land and needing to move on to pastures new when it becomes exhausted. Hunter-gatherers, he asserts, would be astonished by this myth; for them, 'everything is founded on the conviction that home is already Eden and that exile must be avoided'.

This leads him to the startlingly useful insight that our habitual way of regarding hunter-gatherers and farmers has turned reality on its head. As he sees it, it is the hunter-gatherers who are entirely wedded to place and to the stories that bind them to it, to the point where, in Brody's words, those responsible for their displacement from their lands must be considered guilty of cultural genocide. It is the farmers who are rootless wanderers, finding it damagingly easy to obey God's instruction to 'Go forth and multiply...swarm through the earth and hold sway over it.'

The Other Side of Eden is a hymn of respect and affection to the indigenous people of North America (primarily the Inuit) among whom Brody has worked for many decades, and whose interests he has represented in numerous land rights trials. It is a deep meditation on how hunter-gatherers see and experience the world and what their vision has to teach us 'moderns'. In the loving descriptions of every-day life of the peoples among whom he moves, it is the perfect companion volume to Abram's more theoretical treatment of the same subject. Both works resonate with a deep-in-the-bone feeling of remembrance, beyond all romanticised nostalgia, for how we all once ancestrally lived on this earth.

Other than being lovingly crafted books and cracking good reads, what relevance do they have to the myriad predicaments in which we find ourselves today? I see three ways in which they can serve us.

First, they provide a refreshingly new and persuasive analysis of how we got into the mess in which we find ourselves. To remain happy, balanced and powerful, ours is a species that needs stories that make sense. These books provide just such stories, helping us understand the roots of our dislocation from the natural world and the dire consequences that have followed. It is easier to feel compassionate

towards and even hopeful about the future of this lost, destructive species having read its story in this way: its deviance seems less of a malignant design fault, more of a simple missed turning on the path.

Second, they offer a startlingly simple but powerful critique of twenty-first century rational thought and its effects. Many of the stories of indigenous peoples, suggests Abram, appear to us strange, simplistic and, even if we are too polite and culturally sensitive to say so out loud, just plain misguided. But how are we to judge the validity of a people's stories, he argues, if not by how well and sustainably they enable us to live on this earth? By this measure (surely the only one of lasting value), it is our own stories, our own ways of understanding the world that are clearly unbalanced.

Finally, and perhaps most importantly, they give us access to new ways of thinking about and experiencing the world that are full of potential for liberation of the type that shifts paradigms. The notion, for example, that 'mind' or 'intelligence' may reside not in the skull but in the enveloping air (and that this may have been the commonly-accepted belief for the great majority of human history!) is ripe to bursting with the potential for revolution.

True, few are likely to choose to spurn further use of the alphabet as a result of reading these books – they are much more likely to increase our appreciation of the joys of reading and send us scurrying back for more! Nonetheless, whole new sensibilities and ways of dreaming into the world become accessible where none had been apparent before; the value of silence and long moments of meditative exposure to the natural world sing out to us from the pages. If solutions cannot emerge out of the field of thought that create the problems in the first place, these books make accessible to us much, new, fertile territory. New stories lurk here that might just be the saving of us all.

Brody too asserts the primacy of story. 'The world is also shaped by stories....Many hunter-gatherer ways of knowing the world have disappeared, along with hunter-gatherer languages. These are rich and unique parts of human history that cannot be recovered. If the words are gone, so are the stories. A particular shape is lost forever....Each such case represents a harm that is inestimable: the cumulative loss of language constitutes a diminution in the range of what it means to be human'

The deep love for what we have lost that is evoked by these books fuels a surge of passion to fight for that which remains.

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How ideas spread and develop

JOHN JOPLING

Enabling Innovation - a practical guide to understanding and fostering technical change
Boru Douthwaite

Zed Books, 2002

ISBN 1 85649 972 3 (pb) £15.95

ISBN 1 85649 971 5 (hb) £49.95



*Why are some technological innovations widely adopted whilst others struggle?
And what light does the answer to that question throw on how we should
seek to spread radical ideas?*

Even though this book is about the best processes for developing technological innovations, its relevance runs far beyond its subject. Everyone interested in how ideas develop and spread will find it fascinating.

If you ever wondered whether we need more innovations at all in view of the problems they've created in the past, I don't think you will continue to do so when you've read this book. Douthwaite says that given that our natural resource bank is becoming exhausted and the world's population is increasing, new technologies are needed if per capita consumption is not to fall to disastrous levels.

The book therefore argues that the crucial question is not innovation or no innovation but the process by which innovation is developed. It proposes a theory, 'learning selection', to explain why some innovations have been developed successfully and others haven't. The word 'selection' has echoes of Charles Darwin's 'natural selection' and, sure enough, the way into understanding what 'learning selection' means is via Darwin's theory of evolution. Here's Douthwaite's neat summary:

Natural selection is at the heart of Darwin's theory of biological evolution. It is the process by which, because of constant competition for the necessities of life, only the fittest individual plants or animals, those best suited to their environment, survive. Differences between individuals in a population arise because of random genetic mutations and sexual reproduction; if any of these differences proves advantageous, it will enable those possessing it to produce more offspring. Some of the offspring will inherit the beneficial trait and produce more offspring too, and so, over time, the genetic composition of the population will change.

So today's world is the result of lots of 'selections.' Natural selection, Douthwaite points out, consists of three mechanisms:

- **Novelty generation.** As a result of random genetic mutations and sexual recombination of differing genetic material, differences between individual members of a species crop up from time to time.
- **Selection.** This is the mechanism which retains random changes that turn out to be beneficial to the species because they enable those possessing the trait to achieve better survival and breeding rates. It also rejects harmful changes.
- **Diffusion and promulgation.** These are the mechanisms by which the beneficial differences are spread to other areas.

The development of a new technology often starts when someone has a bright idea. That's novelty generation. If someone then makes use of the idea, that's selection. And when others take it up, that's diffusion and promulgation. The point that Douthwaite makes is that one should see these three mechanisms as part of a single learning process in which everyone involved - researchers, manufacturers and users - have important parts to play. 'Rather than natural selection, let us call this whole interactive and experiential learning process learning selection' he writes.

In his Foreword, Niels Röling, the professor of innovation studies at Wageningen University in the Netherlands summarises learning selection thus: 'the book argues that successful innovation is based on ...mobilising creativity among people who are willing to run with a brilliant idea, even if it is still flawed and underdeveloped. The fact

that [the idea] is underdeveloped is a boon, so long as the various agents in the system are invited to improve upon it'

Nothing very extraordinary in that you may think but in fact this book is paradigm changing stuff. Douthwaite has enunciated a theory that embraces the diversity of place, human experience and people as an integral part of achieving successful technical innovation. It's new thinking, the first time anyone has put forward, and precisely described, a comprehensive theory on these lines. The contrast is between this 'co-development' model, involving people 'learning by using' and 'learning by doing', and the conventional 'consultancy' development model is huge.

Douthwaite shows that, for developing new technologies, the 'co-development' model works best. In the course of his post-doctoral research on how post-harvest agricultural equipment was developed and adopted in the Philippines, he began to realise that

agricultural equipment was more likely to be beneficial to more people if the people who benefitted could understand it and adapt it to their local needs. Moreover the agricultural technologies that were most widely adopted were exactly the ones that had been most adapted. This link between adoption and adaptation had some far reaching implications. In particular, it showed that contrary to the standard view that agricultural extension is the job of 'spreading the message to achieve diffusion and adoption of the innovation by as many small holders as possible', it is largely about helping farmers to understand and innovate.

That realisation led him to enquire if similar conclusions held good in fields other than agricultural technologies. The book is an account of that enquiry. It starts with grain dryers in the Far East and then moves on to wind turbines, (why did the Danes succeed in developing good turbines while the Americans, who spent more money, did not?) IT (Linux versus Windows), LETS (local exchange trading schemes) and biotechnology (the Green Revolution and its legacy). And a thoroughly readable and extremely informative account it is.

The practical implications of the 'learning selection' theory are discussed throughout the book. For example, it seems that each new technology needs to have a 'product champion' to push it forward but this person needs to be 'low at the ego end' so that he or she can

incorporate other people's ideas. A 'healthy mixture of top down and bottom up' generally seems to work best, too, but there are horses for courses. And different forces are important at different stages. The idea that people in different roles can be equal partners in technology development is fully explored. The strengths and roles of the public and private sectors are discussed in an unbiased way. The impacts of the profit motive and patent laws are spelt out.

I wasn't sure why it was thought necessary to have ten pages on the history of money to introduce the chapter on LETS. It seemed more than the reader needed to know in order to be able to follow the discussion about the money system's development. Not that the history wasn't beautifully written, but it took one's mind off the subject of the book. But the LETS story itself was fascinating. What a refreshing change to be asking not: 'which LETS system is best?' but: 'what are the lessons to be learned from the LETS story about what processes of development work best in practice?'

Although a technology can be regarded as a success if it is widely adopted since that means a lot of people are making use of it, the incompleteness of this measure surfaces in the chapter on the Green Revolution. By the standard of widespread adoption, the Revolution was a success but Douthwaite quotes Vandana Shiva: 'The Green Revolution has been a failure. It has led to reduced genetic diversity, increased vulnerability to pests, soil erosion, water shortages, reduced soil fertility, micronutrient deficiencies, soil contamination, reduced availability of nutritious food crops for the local population, the displacement of vast numbers of small farmers from their land, rural impoverishment and increased tensions and conflicts.' To which he adds: plus high levels of external inputs involving large amounts of energy nearly all of which comes from fossil fuels, which are running out.

'The decision about which R&D paradigm to use should not, however, be based purely on the question of which model can produce the highest number of adopters in the shortest period of time' Douthwaite writes. 'Instead the decision should be determined according to which model is likely to produce the more beneficial impact in terms of peoples' qualities of life, sustainability and the protection of the natural environment.' That's about the nearest one gets to

Douthwaite's idea of what constitutes 'success.' A fuller discussion is left for another day; and will require another book, or books.

The great value of having an intellectual framework is that it enables comparisons to be made between very different sorts of technical innovation. Once you have a model, it's extraordinary how it suggests the questions that need to be asked and provides a mental sorting system for dealing with the answers. I have no doubt that many people working in the fields covered by the case studies will find Douthwaite's insights useful; but in proposing a comprehensive theory of successful technical innovation, he has provided a framework which can, and will, be used in many other fields.

Niels Röling ends his Foreword by explaining that a 'praxeology' is a theory that regulates the thinking of practitioners in a particular field. He goes on: 'I believe that Boru Douthwaite has developed the kind of brilliant incipient innovative praxeology that innovation managers will run with, learning and selecting as they go.'

That's enough to justify giving the book ten out of ten, but for me it's not the end of the story, since it's a book that sets one thinking. It confirms that it's not enough for us to have bright ideas about what needs to be done. We must become information managers studying the processes by which successful change is achieved, with 'success' being measured in terms which include wider sustainability issues. I'll definitely keep coming back to this book.

John Jopling is a retired barrister, a co-founder of Feasta and co-editor of the *Feasta Review*. He lives in Kerry.

Let's use Gandhian principles to select which economic tools to apply

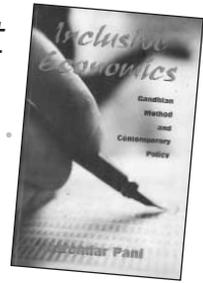
FRANK ROTERING

Inclusive Economics: Gandhian Method and Contemporary Policy

Narendar Pani

Sage Publications, 2001

ISBN 0 76199 580 3 (hb) £38.08



We mustn't expect simple, linear, cause-and-effect economic theories to work predictably in a world affected by millions of individual interactions. Whatever the theorists say, if an approach works, it's valid. And Mohandas Gandhi left us with a complete set of criteria to judge if it works or not.

It's true - you really can't tell a book by its cover. I initially assumed that the "Inclusive" of Pani's title referred to people, and that Gandhi would be tapped for his principles of austerity and Swadeshi - the notion of village self-sufficiency. "Inclusive", however, refers to economic theories, not people. Gandhi's austerity is rejected, and Swadeshi plays only a minor role. What, then, is this book about?

Narendar Pani is Senior Editor of *The Economics Times* of Bangalore, India's technology capital. He has a PhD in Economics, worked for the *Deccan Herald* in Bangalore for five years, has written several books and government reports, and was a Research Fellow at the Indian Institute of Management. From this CV, Pani strikes me as the type of educated journalist who, if he lived in London, would be writing conservative, informative articles for *The Economist* magazine.

Inclusive Economics is about the methods used to formulate economic policy. The book is consistent with my expectations of Pani, but adds a strong moral dimension.

Pani begins his book with an event that shook the economics profession to its core: the Asian currency crisis of 1997. Not a single economist fully foresaw this event, and the *ad hoc* explanations offered after the fact remain unsatisfactory. Pani's view is that an unanticipated event of such magnitude points to fundamental problems with economists' policy tools. His implied question: how can we create policy that avoids such disasters in the future?

Pani's explanation of the failure to anticipate the Asian crisis is that economists filtered a complex

reality through their narrow theories. This was a breakdown not of the theories themselves, but of a theoretical approach to economic reality. Pani believes that this reality is too convoluted, too protean, and too subtle for any present or future theory to grasp. What is needed is not better abstractions or more robust mathematics, but an entirely new approach to economic reality.

Pani refers to this new approach as an "inclusive method". The method is based not on a particular theory, but instead specifies the criteria for choosing which theory or theories should be applied in formulating a particular policy. In Pani's words: "This inclusive method thus need not present a completely different set of economic theories. It only needs to present a different method of using economic models." (p. 27)

In other words, Pani feels that the required economic theories are already out there. What is needed is a flexible approach that applies now this theory, now that one, according to concrete analytical requirements. His inclusive method will help the analyst match the theory to the situation.

This is where Gandhi enters the picture. Until his assassination in 1948, Mohandas Gandhi was a social and political activist of extraordinary effectiveness. Early in life he defended the rights of Indians in South Africa, then returned to India and worked for independence and social justice - especially obliteration of the odious caste system. He was not a profound theorist but developed far-reaching ethical principles based on his reading of the *Bhagavadgita*.

It is this successful application of simple, broad principles to an impenetrably complex reality

that attracts Pani to Gandhi's method. The book is really a proposal to shift Gandhi's approach in the political realm to the troubled economic realm. Following are the key principles of Pani's transplanted method.

1. Judge actions by their consequences. It is irrelevant if an action is rooted in a specific theory or ideology. What matters is its impact on people and society. "The validity or otherwise of an action would be determined by the goodness of both the action itself and its consequences." (p. 55)
2. Judge consequences by their impact on individuals operating within society. It may surprise those who decry the standard economic focus on individuals that Gandhi held a similar view. He felt that the individual, not the group, should take precedence in policy formation. However: "... the individual is not an island. He or she interacts with other individuals in a society." (p. 66)
3. Consider a policy's consequences for everyone on earth.
4. Guard against unintended consequences. It is not enough to carefully formulate and implement an economic policy. If the results are adverse, we should modify it immediately.
5. Ends cannot justify the means. If the means are not moral, the ends cannot be moral either.
6. Subjective judgments are indispensable. The aim is not to avoid subjectivity, but to improve the subjective judgments that must be made.
7. Include all factors. Part of the inclusiveness of Pani's method is a comprehensive consideration of all aspects of a situation, not just several purportedly significant ones.
8. Use participant observation as well as secondary data. The analyst cannot confine analysis to published facts and statistics. He or she must venture into the field and share the experiences of those for whom the policy is being created.
9. Resolve conflicts through bargained consensus. Gandhi strongly opposed class warfare and always strove to resolve conflict through negotiation rather than through violence or coercion.
10. Focus on local resources and the local population. That is, adhere to the principle of Swadeshi.

Pani summarizes as follows: "As the Gandhian method opposes the reduction of reality into a single model, its method of intervention in the

economy is necessarily more pluralistic. Its focus on consequences makes it open to any instrument that is available at a point of time to achieve a particular consequence. Its inclusiveness implies that the analysis cannot be restricted to a few factors, no matter how important they may be." (p. 122)

Inclusive Economics provided me with a useful overview of the theory behind policy formulation. As someone whose focus has been on economic theory, I learned much from Pani's discussion.

I have two major objections to Pani's thesis. First, I don't believe all the required theories are already out there, waiting to be filtered through Pani's sieve. Second, I doubt that a vague set of principles based on Gandhi and the Bhagavadgita will gain many adherents in the West.

My own perspective on economic theory has been published on the Feasta website, and is summarized in this *Feasta Review*. In brief: standard economics was developed for capital rather than for humanity, and has limited applicability to human well-being and environmental integrity; a new economic theory is therefore required. Pani's orientation is purely conventional, and I doubt that he would even consider the possibility of an alternative economic conception. His broad, inclusive approach to policy formation may well have value, but it should be opened to a wider range of economic theories. Conventional pluralism, in my view, is hardly pluralism at all.

I was surprised at Pani's pedestrian prose and lack of passion. I had expected Pani the journalist to produce a lively book, with at least a few memorable phrases. I found none in almost 200 pages of text, possibly because of intrusions from Pani the academic. And why the lack of emotional involvement with his profoundly moral project? Perhaps this was squeezed out by his editors. If so, a disservice was done to this insightful and progressive mainstream thinker.

I recommend this book only to those with a strong interest in economic policy and a well-developed immunity to academic verbiage. If your eyes glaze over when people mention Karl Popper's criterion of falsifiability, I suggest you read *The Economist* instead.

Frank Rotering lives British Columbia and makes his living by teaching courses on computer software in Canada, the U.S., and the U.K. He studied economics at Simon Fraser University in Vancouver.

Corporations and America's Founding Fathers

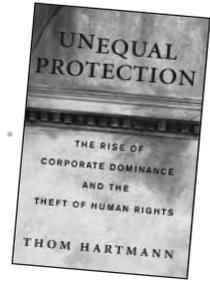
JAMES BRUGES

Unequal Protection: The rise of corporate dominance and the theft of human rights.

Thom Hartmann

Rodale 2002

ISBN 1-57954-627-7 \$15.95



American corporate law is based on a fraud. How did this come about and what can be done to reverse it?

Trade-dominance by the East India Company aroused the greatest passions of America's Founders – every schoolboy knows how they dumped the Company's tea into Boston harbour. At the time in Britain virtually all members of parliament were stockholders, a tenth had made their fortunes through the Company, and the Company funded parliamentary elections generously. Parallels with US political life today are hard to miss and the Founders must be weeping in their graves.

After independence, corporations received their charters from states and the charters were for a limited period, like 20 or 30 years, not in perpetuity. They were only allowed to deal in one commodity, they could not hold stock in other corporations, their property holdings were limited to what was necessary for their business, their headquarters had to be located in the state of their principle business, monopolies had their charges regulated by the state, and all corporate documents were open to the legislature. Any political contribution by a corporation was treated as a criminal offence. Corporations could, and often did, have their charters removed if the state considered that their activities harmed its people.

Railroad companies, opening up the interior, became the first monopoly corporations. They had traditionally been referred to as 'artificial persons' and when the Fourteenth Amendment gave all 'persons' equality before the law they desperately tried to claim that it applied not just to slaves but to them as well. They eventually succeeded with the *Santa Clara County vs. Southern Pacific Railroad case*.

Hartmann tried to find why this particular case had suddenly reversed eighteen years of consistent ruling by the Supreme Court that corporations did *not* have the rights of human persons. He found that textbooks only quoted the headnote not any details. He eventually unearthed the original records in Vermont only to find that the judge had specifically stated that the case did *not* relate to corporate personhood. The headnote had been written a year later by a person whose life had been with the railroads, but by then the judge was too ill to check it. This mistaken or fraudulent headnote is still used in court as a cornerstone of corporate law. It set the road to corporate tyranny.

Hartmann believes that reversing the *Santa Clara* case would be the first step to subjecting corporations once again to the control of the people. The federal government, each state, each township, could then regulate corporations to the benefit of its citizens and help local economies to flourish. Indeed, in California local governments have already passed laws that deny corporations the status of persons while in Pennsylvania some townships have forbidden corporations from owning or controlling farms in their communities. Hartmann ends the book with model ordinances to rescind corporate personhood.

I believe that this ties in with George Monbiot's suggestion that every corporation should be subject to *mandatory* fair trade rules and have its licence to trade removed by a national government if its activities are considered to harm communities.

James Bruges is the author of what is probably best brief introduction to sustainability issues, *The Little Earth Book*. He is a retired architect and lives in Bristol.

Making energy the basis of our money supply

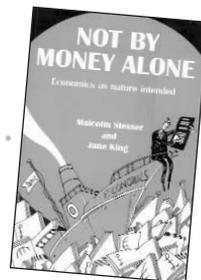
BRIAN DAVEY

Not by Money Alone - Economics as Nature Intended

Malcolm Slesser and Jane King

Jon Carpenter Publishing

ISBN 1 89776 672 6 (pb) £11.99



Calculations based on current market prices tell one nothing about a project's long-term sustainability. Its costs and benefits in energy terms would be a much better guide.

The basic idea of this book is that economics, although useful within limits as a way of understanding the world, has become a dangerous encouragement to self-deception when it comes to understanding humanity's relationship with nature. The contribution of nature to economic activity, including its capacity to supply materials and to act as a sink for wastes, cannot be measured through money. Economics, the authors say, can tell us where people would like to go, but we must supplement this with calculations based on physical science in order to tell us where they can go. An action can only be economically feasible if it is also physically feasible and conceptualising our options solely by examining market processes, measured with money variables, can never tell us this. What is lacking is a physical method of quantifying the economy to parallel the monetary quantifications to be used in policy. So the authors argue that energy units must be used as indicators to guide policy if development is ever to be "durable" - the term they propose to substitute for the degraded concept of "sustainability".

Energy is the motor force of all productive activity. It largely accounts for the massive productivity of our industrial economies. The time has long gone when people were employed for their labour power, where that term could be considered a description of a physical expenditure of effort. Labour is now almost exclusively decision making and payments to people are for the management of resources - not for the physical energy that they put into the labour process. A horse could do the physical work of six human beings. A hundred horse power tractor can do the work of 600. The energy

that drives it is its fuel - the muscular effort of its driver in steering is miniscule. Like virtually everyone else in an industrial economy, the tractor driver's main function is to make decisions.

A simple example helped me to take in the distinction between decisions about durability (sustainability) based on economic measures, involving slippery monetary valuations, and decisions based on physical measures. The authors compare two investments - one in a wind turbine and another in a diesel generator - to see which option is the more sustainable investment. Making and running both types of generator can be considered in physical terms and in economic terms. The comparison in physical terms involves looking at the energy in MegaJoules that is involved in making and running each of them - over and against the energy that they each generate over their 20-year lifetimes. The economic decision is based upon the monetary costs arising from constructing and running each of them compared to the monetary revenues arising from the electricity that they generate.

The chief difference, of course, is that, after production, the wind generator requires no further (paid for) energy inputs to run it, but the diesel generator requires further purchased inputs of diesel energy. The authors show that only the physically-based calculation can tell which is the sustainable investment. The diesel generator may appear to be "more economic" here and now - but only because the price of diesel is low and an assumption is being made that currently low oil prices will be stable over the next 20 years. In reality we cannot know what the price of diesel will be. If oil prices rise, which seems likely given what is known about the

prospects for the depletion of reserves, it will probably not be the best option, seen in hindsight. An economic calculation based on current market prices tells one nothing about a project's long-term sustainability.

Of course, many economists might protest that when the price of diesel rises that will encourage the switch from investment in diesel generators to investment in wind turbines and the market, informed by price signals, will be working properly. But it doesn't help us to make decisions today and if a switch to renewables is left too late it will become less and less feasible because there will be less and less available energy both to sustain our high consumption lifestyles and to provide the power required to manufacture and install the equipment needed by a new renewables-based economy.

Slessor and King were part of the team that developed the ECCO model for energy forecasting purposes. Its unique feature, compared to other economic models, is that the main technical energy and resource parameters are included and computed as part of the total picture. Using ECCO it is possible to calculate what the effect of switching from fossil fuel and nuclear power generation to power generation from renewables will be on other dimensions of the economy - for example the implications for consumption, employment, imports and exports.

That enables the authors to be confident that many solutions commonly put forward to address sustainability issues are, on deeper examination, not practically feasible. Thus Greenpeace comes in for some criticism because it is simply too optimistic about what is involved in a switch from an oil- and nuclear-based economy into one based on renewables. Using the ECCO model "a dynamic analysis of the investment requirements for renewables demonstrates that it would take a considerable time, maybe a century, to achieve a renewables-based economy".

Energy is the key to addressing other environmental issues too - like the depletion of raw materials and the use of the environment as a sink. In regard to the latter, the authors argue plausibly that energy use per unit of land area is probably the best indicator that can be used for policy purposes to measure the burden different nations are putting on their natural environments compared to the other possible indicators of population density, or GDP per land

area. In regard to raw material depletion, although optimists point to the immense mineral resources still available on the planet, making them practically available requires energy expenditure in mining and extraction - and the energy available to do that is itself on the brink of decline. On this, Slessor and King confirm the analysis made by Colin Campbell and colleagues in the Oil Depletion Analysis Centre - that we are nearing the peak for conventional oil, while the peak for gas is a few years behind.

Armed with their analysis, the authors explore a range of policy instruments which could be used to enable and oblige us to live reasonably comfortably both within technical constraints and within the limits that they have highlighted. This includes ideas like Personal Energy Rights and/or the Unitax on primary energy sources or a local fuel based so-called Ulitax. These would replace taxes on income. Slessor and King are concerned that these are administratively feasible and they show how they would work. Their assertion, stated briefly early in the book, is that "With our ability now to analyse and understand the system, it should not be beyond our powers to create a durable economy and environment by legislating for appropriate negative feedback loops, like the checks and balances of a democratic legal system." Their discussions towards the end of the book are an attempt to grapple with how that might be done and how, if only the mental model used by the public as citizens can more accurately reflect the realities of the physical world, we can "cajole our politicians" into this.

Here I part company, at least to a degree, with the authors. The book was published in 2002, before the Iraq oil war, and I wondered if they would write it in the same way now. All the way through their book, Slessor and King acknowledge repeatedly the forces and vested interests working against the adoption of their ideas. Against these vested interests they raise a voice of reason and of moral protest - an argument about the awful consequences of global decline if no preparations are made for it. Since its publication we have seen the USA, with Britain following behind, lying, stealing and killing to get access to oil supplies.

Because the oil interests are so highly integrated with the arms interest and military logistics, these same interests appear to be profiting highly by the accumulating chaos that they are, in large

part, causing. In that sense, the people who King and Slesser deplore, those who say that “to be successful we will have to be more ruthless with each other”, are already driving the political and economic process. On the other hand, large sections of the population are becoming aware of the energy crisis, indirectly, through the horrified knowledge that it has motivated the war politics of their leaders, leaders who can no longer be trusted. If there was ever a politician that could be “cajoled” it might have been Michael Meacher, but he is no longer the British environment minister and look at his views now!

What this suggests to me is two things. Firstly, that the problems that this book raises require more than new government policies. It requires new government systems and new concepts of democracy, as well as new information and media networks which we will have to develop out of, and during, the crisis as it evolves. Secondly, we are already entering the period of chaos that the

book predicts would occur if we do not act. It is too late, the chaos is under way. Accordingly, the changes in the government system and policy will be developed less to prepare for, and to forestall chaos, and more as emergency ad hoc measures to cope with it. An important part of that will be people acting independently of government to support each other at a local level, as best they can, sorting out improvised energy saving, food, transport and rationing arrangements while counterposing a higher citizens’ ideal to the viciousness that is becoming prevalent at the level of policy. This book may provide such a citizens’ movement with some broader orientation as to why things are in such a mess. Those who are lucky enough to survive the social chaos in intact communities, if indeed any such communities do survive, will perhaps be able to make use of the economic concepts and tools described in this book in building a more sustainable (durable) form of human civilisation.

Brian Davey trained as economist but has worked mostly in the Nottingham community and voluntary sector. He is currently the development worker for a mental health project with a community organic garden.

Jane King and **Malcolm Slesser** have both participated in Feasta events and Feasta sponsored the creation of an ECCO model of the Irish economy. Copies of this are available on a CD from the office.

Participatory democracy is good for you

“We, the People”- Developing a New Democracy

Perry Walker

New Economics Foundation

ISBN N/A £4.99

Perry Walker, the development director of the New Economics Foundation’s democracy programme and a member of InterAct, the participation network, leads his readers on a journey which begins with a 1774 speech by Edmund Burke. In this, Burke argues that public representation should be seen as powerful people speaking their minds on what they think is best and not bowing to the will of the people.

During the journey, Walker explores the poor state of democracy in western society, highlights problems and suggests new ways of thinking about democratic processes. He says that the decline in public participation in democracy has had social costs. These include the reduction of complex issues into “zero sum” situations in which one group wins at another group’s expense

rather than working out “win/win” collaborations.

Walker suggests that a reformed democratic society would make it easier for people to participate in decision-making, and that they could be assisted in forming their opinions through deliberative processes. A number of practical examples are presented, including citizens’ juries, appreciative inquiry and preferenda. The latter are being used in Northern Ireland.

I found this an insightful book which made the abstract concept of democracy more accessible and real. With plenty of real world applications it is a bargain at £4.99, or you can download it free from the NEF website at www.neweconomics.org

Patrick Mangan (see p176)



The problem with the money system and competing solutions

BRIAN LESLIE

The Future of Money: A new way to create wealth, work, and a wiser world
Bernard Lietaer

Century 2001

ISBN 0 71268 399 2 (hb) £18.99

ISBN 0 71269 991 0 (pb) £9.99

Money - Understanding and Creating Alternatives to Legal Tender
Thomas H Greco

Chelsea Green 2001

ISBN 1 89013 237 3 (pb) £14.95



The build-up of debt caused by the way currencies such as the dollar, the euro and the pound are created threatens the global economy. Alternative currencies can only offer a partial solution.

These two books, both published in 2001, envisage an economic breakdown because of the inherent faults in the money system. Anyone with concern for a sustainable future for humanity and for the environment on which it depends should study their message. The increasingly-desperate competition and conflicts around the world have many contributory causes, but just one common one: money and the scheming to maintain the power which the control of its creation gives to the banks.

Both authors start by faulting the current official money system but differ in their conclusions about its future. While Lietaer views its collapse as inevitable in the short term, Greco is content to list its flaws. Both propose 'alternative' or 'complementary' currencies to compensate for them.

Contrary to the popular myth still fostered by many banks and politicians, banks do not lend their depositors' money. They create new money when they grant a loan or overdraft and now some 97% of the money in circulation was created in this way. This means that money must constantly be created to replace that being repaid to the banks. This gives the banks power to decide who will get it, and for what purposes - a point not brought out in either book.

Both authors identify the interest charged on the bank loans which are the basis of virtually all modern money as a cause of the serious

problems they expound. Lietaer summarises the problems with interest as follows:

- it indirectly encourages systematic competition;
- it continually fuels the need for endless economic growth; and
- it concentrates wealth by taxing the vast majority in favour of a small minority

As a result, both books view the absence of interest charges as one of the strengths of the alternative currencies they suggest, although Greco nevertheless proposes to use the interest paid on investments of official money to cover the operating of some of his proposed alternative money systems. Neither author sees the exponential growth of debt around the world as a major problem.

Lietaer sees four megatrends converging in the next 5-20 years: monetary instability, the 'age wave' (the increasing average age of the population), climate change and extinction of biodiversity, and the information revolution. In seeing the 'age wave' as a problem of provision of needs, he ignores the huge increase in productivity over the last century and the grossly wasteful use made of it. If better employed, this productivity would decimate the employment necessary to meet needs. He sees the information revolution as a problem because it is 'destroying jobs', but does not consider this as a benefit denied to society by its failure to distribute

income better and easily solved by introducing Citizens' Incomes. Discounting the possibility of reform, he sees complementary currencies as the means of moving to 'sustainable abundance'.

He notes that climate change and the extinction of biodiversity threaten 'sustainable abundance' and that monetary instability prevents economies making the drastic changes needed to achieve it. However, he dismisses the possibility of reforming the official money system and fails to consider the effects of the debts generated by the way money gets into circulation. The growing magnitude of total debts - national, business and individual - leads to increasingly desperate, destructive competition. Moreover, since these debts can only be repaid with official money, alternative or complementary currencies are severely limited in how far they can compensate for the problems created by official 'debt-money'.

Greco is more concerned with the details of current and potential alternative currencies, devoting much of his book to descriptions of current examples and a selection of past ones, their strengths and weaknesses, and theoretical possibilities and recommendations for future systems, several of which are his own proposals. He notes that alternative currencies start and are most successful at times (and in places) when the failings of official money are having the greatest impact, and mostly discontinue when conditions improve. The Swiss WIR is the only long-lived example he quotes. For those contemplating starting a local or alternative currency, his book has much to recommend it.

Greco divides historical money systems into 'commodity', 'symbolic' and 'credit' money, but in declaring as an "essential fact" that "money has a beginning and an ending; it is created and it is extinguished" he exposes the limitation of his thesis. While this is true of all the official and alternative currencies he describes - all of which are 'symbolic' or 'credit' systems - it is not true of all money, current or past - or potentially, future.

Both books contain a wealth of interesting facts about, and examples of, alternative currencies plus thought-provoking ideas and proposals. Only Lietaer, however, addresses the issue of international monetary exchanges. I believe his Terra is a promising idea for an international currency, not least because it would be independent of governments and take its value from a 'basket' of real, traded goods.

I do not share Lietaer's pessimism about the possibility of achieving monetary reform - an issue Greco does not even address as he sees complementary currencies as making it unnecessary - despite the failure of its advocates to achieve it to date. His assessment of the invulnerability over the past century of the vested interests manipulating and controlling the current system is indisputable but the mounting instability of the present system and its impending collapse make the possibility of forcing reform much more realistic.

In the 1930s the movement for reform was growing rapidly until war became the solution to the depression. There is never a shortage of money for warfare! Today, again, the fundamental problems generated by the financial mechanism have grown to the point where its instability is widely recognised and the movement for reform is growing fast. This makes effective challenge much more possible as well as vital.

The history of the past few centuries can be explained in terms of the nature of the money-creation mechanism and the deliberate manipulation of that system to suit powerful companies and the banks which funded their development. Greco regards the recent change to 'credit' or fiat money - going off 'the gold standard' - as the ultimate debasement, and as the cause of inflation. He is well aware of the power deriving from the issuance and control of the money supply but cannot accept the fact that its divorce from any commodity-base to become pure credit makes it possible for the first time in history to create and control a national currency for the benefit of society, as proposed by James Robertson and Joseph Huber in *Creating New Money*, among others.

The power and profit banks derive from their privilege of controlling the issue of money must be removed. The sole power to create or destroy national money should be in the hands of a credit-creation authority under democratic control and mandated to monitor society's needs and to maintain the money supply at the level needed to allow trading, saving and investment without serious inflation.

A vital point, however, is that all the money in circulation should have been spent, not lent, into circulation. This means that all new money should be credited to the Treasury's account so that the seigniorage - the profit from issuing it -

is gained by the nation rather than any individual or business.

What gives national monies their special advantage over complementary currencies is the fact that only they are acceptable for payment of taxes and legally recognised for the settlement of debts. As long as they function tolerably well, they are the preferred medium of exchange. The only way to eliminate the debts that have built up as a result of the present way of issuing currencies

as interest-bearing loans is by creating and issuing enough debt-free (and therefore interest-free) national currency to retire all the debts. If this was combined with the payment of Citizens' Incomes and switch from income tax and VAT to land-value, pollution and resource taxation, there should be little need or demand for local or alternative currencies. However, until then, or in the absence of reform, these currencies are likely to become of increasing importance to survival.

Brian Leslie is editor of *Sustainable Economics*, the bi-monthly newsletter of the green economy working group of the English Green Party.

Preserving the the planet means scrapping capitalism

DEREK WALL

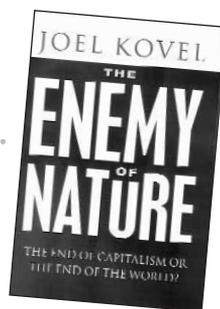
The Enemy of Nature

Joel Kovel

Zed Books 2002

ISBN 1 84277 080 2 (hb) £45.00

ISBN 1 84277 081 0 (pb) £15.95



If economic growth has caused the sustainability crisis, why do rich countries still pursue it? Is it required because of the way money is put into circulation, as suggested in the previous review, or is the Left correct to blame the nature of the capitalist system?

In this convincing but testing text, Joel Kovel argues that economic growth is ecologically unsustainable and leads to alienation because it fuels social injustice. It has made us the hungry ghosts of Buddhist mythology by creating a world where the work we do makes us sick and we consume so as to try and salve that alienation. We therefore need to replace capitalism with a new system based on production for use rather than exchange.

To promote the message in *The Enemy of Nature*, Kovel once stood as a Green Party member for a New York Senate seat and challenged Ralph Nader for the party's presidential nomination. His academic career has included a period as professor of psychiatry at the Albert Einstein College of Medicine. He has written numerous books and articles on psychiatry and politics including a seminal study of white racism. Like many other US Green Party members, he has a lengthy pedigree stretching from the 1960s as a New Left and civil rights activist. In the 1980s he produced one of the best-known peace movement texts *Against a State of Nuclear Terror*. His path to the Green Party began 1988 when his home in the Catskill Mountains was affected by a severe heat wave, which ruined his garden and made him conscious of the greenhouse effect.

Kovel believes that the ecological crisis is already with us and the world is being unpicked eco-stitch by eco-stitch. Since the early 1970s when reports such as *The Limits to Growth* and *Blueprint for Survival* were published and Earth Day introduced, the human population has nearly doubled, the population of vehicles more

than doubled, paper consumption has quadrupled and fish stocks are in crisis.

He vigorously attacks the notion of unlimited economic growth and shows convincingly that growth, far from being an accident, is an essential part of the modern capitalist economy, observing "One way of seeing this is in terms of an economy geared to run on the basis of unceasing accumulation. Thus each unit of capital must, as the saying goes, 'grow or die,' and each capitalist must constantly search to expand markets and profits or lose his position in the hierarchy."

Hostility to multinationals is not enough, he says. Capitalism is not a conspiracy but a process based on commodity exchange. To survive, we exchange commodities to generate the cash to get more commodities, money sticks to our hands and we become dominated by the need to accumulate cash to meet our needs. The 'distortions' of debt, the dislocations of 'free' trade and all the rest are conjured up by the basic atoms and molecules of commodity production.

The Post Office makes a profit if more junk mail is posted and I earn a wage if people buy my books rather than getting them from the library. Doctors thrive on ill health and criminologists only receive a pension if deviant acts continue. The capitalist economy needs waste and destruction to survive. So Kovel urges us to sweep away commodification and directly produce what we need and share. We should construct a pleasurable - even lazy - form of socialism based on the needs of people and the rest of nature. Decommodification of the world leads to the re-enchantment of nature, he says.

Kovel challenges Greens to re-examine the implications of their critique and is critical of types of socialism that ignore the need to sustain nature. He synthesises the more philosophical and radical elements of green politics and Marxism. He examines how ecological ensembles of sustainable production are possible and looks to the communal tradition of religious groups such as the Bruderhof for hope.

While stressing the economic roots of the crisis, he is keen to show how a variety of causes interact with capitalism to drive us towards catastrophe. Alarmed perhaps by his own boldness, Kovel notes

Growing numbers of people are beginning to realize that capitalism is the uncontrollable force driving our ecological crisis only to become frozen in their tracks by the awesome implications of the insight. Perhaps optimism is appropriate. There is a difference between the impossible and the merely difficult. In fact, the very notion of sensual use rather than an economics based on enslaving accountancy values has a seductive charm. I am not one to minimise the importance of strategy and the difficult debates we need to have about moving to a qualitatively different kind of society but nonetheless the implications of sustainability are to be enjoyed.

Let's borrow all we need from libraries, grow our food, build our houses, teach our sons and daughters to cook and enjoy life instead of being imprisoned by unfree labour and boring consumption. Let us read the novels of John Cooper Powys, practice our zazen and live fully in the world!

In short, Kovel argues that ecology demands anti-capitalism. And anti-capitalism suggests, perhaps, a pagan appreciation of our real, material, living world, an appreciation that brings us back to the necessity of struggle.

This is perhaps the best book I have read on green economics in my quarter century of activism. It needs to be read, reread, its message repeated, networked and acted upon. It is beautifully written. The core message is simple but of great importance: our economic system wrecks the environment, thrives on injustice and allows abstract and alien process to control human life. It shows in some detail why we are destroying the world and how we can stop. Above all, it provides a course of practical therapy to get to ecology, justice and liberation.

Derek Wall, like Joel Kovel, is an eco-Marxist. He teaches political economy at Goldsmiths College, London, and stood in the 2004 European elections as a Green Party candidate for the South East Constituency. His book, *Babylon and Beyond: the economics of anti-capitalist, anti-globalist and radical green movements* is to be published in 2005 by Pluto Press.

A shopping list of solutions, but none nearly radical enough

GILLIES MACBAIN

Eco-economy - Building an Economy for the Earth
Lester R Brown

Kogan Page 2003
ISBN 1 85383 826 8 (hb) £17.99
ISBN 1 85383 904 3 (pb) £14.99

The New Economy of Nature
Gretchen C Daily and Katherine Ellison

Island Press 2002
ISBN 1 55963 154 6 (pb) £11.50
ISBN 1 55963 945 8 (hb) £19.50



*Assigning money values to the environment is not likely to stop its destruction.
Nor will treating a long list of problems one by one suffice.*

I offered to review these books because of their titles. I hoped to find authors who shared my own intuition that the global economy of the future must follow and mimic the patterns of nature, and of life itself, to become a cyclical and sustainable system. When I had read them I felt rather like a malt whisky drinker asked to adjudicate between red lemonade and Seven-up. These offerings are just not strong enough for my taste, but I will do my best to describe them for those who would like to get them out of the library. (I presume Feasta members would do nothing as consumerist as actually buying a book, unless to add to the insulation qualities of a book-lined study.)

Lester R Brown was the founder of the Worldwatch Institute. He is now president of the Earth Policy Institute which produces this book, a series of four page earth policy alerts, and brief eco-economy updates, all of which can be downloaded for free at www.earth-policy.org

The Worldwatch Institute was founded in 1974. The author lists the causes for concern at that time - shrinking forests, expanding deserts, eroding soils, deteriorating rangelands, disappearing species, and the early signs of collapsing fisheries. Can he now tick off the problems tackled and solved? No. The list is still there and has to be added to - rising carbon dioxide levels, falling water tables, rivers running dry, ozone depletion, plus rising temperatures and the other effects of global warming.

These concerns are all the result of a rising global population, with increasing technical mastery of their environment, burning up non-renewable reserves of energy and expanding their economies exponentially, all of this taking place within a finite planetary biosphere.

The book was published in 2001, and it may be that future historians will record the period 1974 - 2001 as a time of innocence, when environmentalists allowed themselves to assume that a more restrained and equitable sharing of the resources of the Earth would follow in due course upon their exposition of the problems.

Brown ignores two most vital questions. The first is how to return the population of the Earth to a level that can be sustained by a global economy that does not use resources faster than they can be renewed. The second, how to deal with the historic tendency of nations and alliances to go to war to confiscate, or defend, vital sources of energy. In mediaeval times this meant land. In modern times it has meant oil, gas, and minerals.

For an environmentalist to protest that that is not his problem would be no more acceptable to me than an industrialist making the same denial of responsibility for environmental pollution. War, like acid rain, often falls upon people far away - but both are side effects of the industrial hunger for consuming fossil energy. Innocence is an illusion. Start a car, or switch on a light, and you are part of this consumption.

Lester Brown works his way through a list of signs of stress in the world's climate, forests, fisheries, soils, and species. He then moves on to a list of solutions to these separate problems, but it is a list. No doubt he understands the interacting complexity of the world, - ecological, industrial, social, economic, and financial - but his well-researched work is to me no more than an environmental laundry list, linear and pedestrian. It is as though the problems can be solved individually and separately, without any changes to global culture - political, economic, philosophical, religious, or otherwise. This I do not believe.

In spite of this there is one paragraph from this book which has stuck in the mind. It is headed 'Learning from China.' China is topical. China is developing very fast. Decisions are being made as to the future of China as an industrial giant, perhaps even the successor of America - as America was the successor of the British Empire and her Victorian period of industrial dominance. So will China catch up with American levels of consumption?

No. For China to match America in per capita beef consumption would require the entire American grain harvest. For China to match Japan in fish consumption would require the entire world fish catch. For China to match the American level of oil consumption would require the entire world's oil.

So that is not going to happen. But Lester Brown does not tell us what is going to happen instead.

The second of these books is *The New Economy of Nature* by Daily and Ellison. One of the women authors is a scientist, the other a journalist.

I do not really understand this book; better to say so than to pretend. Firstly, I do not understand why it is a book. I get information from newspapers, radio, e-mail, and discussion groups. This book could easily have been a couple of interesting articles in a weekly publication - perhaps it once was. Or a couple of radio talks. Do you know how much radio you can buy for twenty pounds sterling? (the book's price). Quite a lot. It is not a book I want to own for reference.

One of the themes of the book is making protection of the environment profitable. That means putting a money value on certain environmental initiatives. As an opponent of putting a money value on things that used to be free and natural, such as clean air and water, I am not the best person to assess the authors' account. Nor am I impressed by their breathless enthusiasm that all is going well. After all, George Bush got into power - and all is not going well. Short term policies are in the ascendant, everywhere you look.

The best account in the book is of New York City buying up its own drinking water catchment area, instead of building enormous filtration plants. This was common sense. Spend a billion dollars to keep the area clear and unpolluted and to compensate the owners of second homes and the developers. Sounds a lot of money until you assess the cost of the filtration plants, which would be billions more.

If New York had thought of this at a time when the upstate watershed was still wild and free of second homes, they could even have done it without the billion.

Free Ballygowan for Gotham city ?

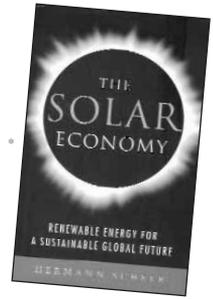
I can relate to that.

Many regard **Gillies Macbain** as Ireland's foremost dark brown thinker but he describes himself as a wheelchair van driver and organic farmer. He lives in a tower house in County Tipperary and is currently assembling the articles he has written over the years into a book.

I've seen the future and it's powered by the sun

EAMON RYAN TD

The Solar Economy,
Herman Scheer,
Earthscan, 2002,
ISBN 1 85383 835 7 £17.99



An Irish politician finds that a book written by one of his German counterparts makes him want to become an engineer when he grows up

The *Solar Economy* starts with a withering critique of the present fossil fuel economy. It lambasts those politicians who leave long-term planning to international stock markets that never look beyond the next quarter. It describes the risks posed by the lengthy supply chains needed to transport dwindling fossil fuel resources to run outdated combustion machinery and a dysfunctional agricultural system. It predicts not only increased international conflict as power blocks squabble for the remaining fuel reserves but also the concentration of wealth in fewer countries and hands.

Such warnings have been heard for at least thirty years and they seem to be having less and less effect on our collective conscious and our will to change. It is as if someone had been highlighting the fact that the King has no clothes for so long that we have become comfortable and complacent about the naked truth of our unsustainable economic model.

But Scheer is not simply foretelling doom if we carry on as we are. He presents a sweeping vision of what the renewable alternative could and should be like. His vision penetrates beyond the obvious potential of photovoltaics, wind power and biomass to explore the ways solar solutions will change every aspect of our economy and lives. Its realisation involves not just putting a few PV panels on our societal roof, but changing the plumbing, wiring and the basic building blocks of our society to build a renewable future.

A key step in that direction will be the development of new energy storage technologies for use by intermittent renewable power sources like wind. A lot of attention has been paid recently to storing energy from the wind by using surplus electricity from wind turbines to

electrolyse water to provide hydrogen for use in fuel-cell-powered vehicles. My own hunch, however, having read Scheer's overview of the emerging technologies, is that innovations in areas such as compressed air cylinders may be a better bet in the near future. Unlike battery technology there are no messy chemicals and test cars already have a range of 200km using a compressed air cylinder which is lighter and more compact than any battery in existing electrical vehicles. In my dreams I am already scheming to open the first compressed air re-energising station on the Ring of Kerry to power all those coaches flying along the road.

Indeed, this book will make most of its adult readers yearn to become engineers when they grow up. It is a rallying call for technologists to save the planet by designing ways to store the energy provided free of charge by the sun. As I write, I am sure an engineer in a small lab or a garage somewhere is putting the final touches to a prototype energy storage system that will mark this new century in the same way that Henry Ford's production of the Model T marked the last.

In response to a question in the Dail in 2003, Minister of State John Brown cited the storage of renewable energy as a major problem; he said "In America, they are investing approximately \$27 billion on hydrogen fuel research to deal with this matter. One can therefore see the enormity of the storage problem and the financial implications of dealing with it." What a terrible pity the minister's advisers had not seen the positive side to that statistic and insisted that Ireland be in the forefront of similar research. It was unfortunate that the recently-established Science Foundation of Ireland was not given a special remit to fund new sustainable technologies, as has happened in several other countries.

One of Scheer's central convictions is the need for our society to return to the land. He believes that the development of a solar economy will see the location of energy sources and the accompanying storage industries in diverse and often peripheral locations. He claims solar technologies will also bring an agricultural revolution which will have dramatic consequences for rural life. His vision is not of a return to a medieval world of subsistence farming but rather the promotion of what he calls "real biotechnology" to develop the new applications to which biological materials can be put. For example, in place of pesticides he sees the possibility of using sugar-enriched ethanol, and instead of plastic pipes ones made from organic fibre. He insists that local farmers rather than multinational companies holding genetic patents should control the development of new biotechnologies.

The flight from the land of recent years is understandable when one considers how sudden market vagaries or crop failures have broken so many farmers. The heartbreaking isolation of such a situation is less likely when there is a diversity of sources of rural economic wealth. In a solar-powered world, people would be able to depend on income from renewable energy production as well as from crops grown to replace the petrochemical products of today.

The "futurist" movement in the 1920s and 1930s was characterised by paintings of trains and cars moving at great speed. If Herman Scheer was to

paint his own futurist vision I think he would do so with paintings of a rural landscape in which people were working at their cleverest to reap the most sustainably from the land.

Herman Sheer is an SPD member of the German Parliament and he is wise to all ways in which the twists and turns of the regulatory process can have a profound effect on the development of the renewable energy industry. Industry sources here can only look on with envy to the political support that has helped bring about the development of 16,000MW of wind power in a country that is positively becalmed compared to our own windy island.

In his economic analysis he rails against the tendency to ignore the marginal long-run fuel costs in the assessment of competing energy projects. The positive news is that the cost of electricity from the wind is now sneaking below that from the cheapest alternative, combined cycle gas power stations. We are at a unique moment when we can either harness the development of technology to create a more equitable and cleaner economy or else face a series of unpredictable crises as our fossil fuels run out. The former process will require not only good engineers to make the necessary technological advances but also political support to ensure we take the right steps forward. Having thought about it again, perhaps those who read Scheer's book will, besides becoming engineers, have to be more political when they grow up as well.

Eamon Ryan, TD, is the spokesperson on energy for the Irish Green Party.

Few reasons to be cheerful, thanks to declining supplies of oil

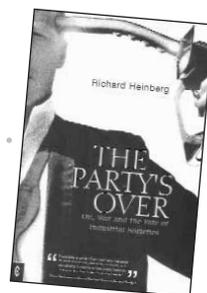
MICHAEL LAYDEN

The Party's Over

Richard Heinberg

Temple Lodge Publishing, 2003

ISBN 1 90263 645 7 £11.95



Humanity's development path is going to be thrown into reverse in the next few years by oil and gas shortages. The prospects of contraction and dislocation are frightening.

It is easy to understand why Richard Heinberg wrote this book. Mankind has faced many challenges in the past but few as complex as the current one. We have not used the thirty years since the twin wake-up calls of the first OPEC oil crisis and the publication of the seminal work *The Limits to Growth* to reduce the demands we make on the planet. So, having failed to take the easy steps that would have been required a generation ago, our species motors towards a major dislocation caused by the imminent end to the era of plentiful cheap oil.

"I am reasonably cheerful and optimistic by nature," Heinberg writes. "However, as anyone would, I find this picture of the future to be deeply disturbing. Everyone I have met who understands population and resource issues comes to essentially the same conclusions and has to deal with the same emotional responses - which typically run the gamut from shock, denial, and rage to eventual acceptance - and a determination to do whatever is possible to help avert the worst of the likely impacts."

So this book is clearly not entertainment. It is meant to alarm, educate and perhaps inspire individuals to make a difference in this most terrible struggle our species will increasingly have to face. Heinberg approaches his subject in a logical and well-thought out way.

- He identifies civilisation's dependency on fossil fuel resources
- He shows the vulnerability of our civilisation to minor disruptions in energy availability
- He examines the various projections of the imminent onset of peak oil and other fossil fuels.

- He looks at the political and geopolitical realities of oil and resources historically and currently
- Finally, he ponders some of the potential solutions or policies which could be implemented to mitigate the effects of these real limits to human economic and social expansion.

The book is an amazingly brave work and it is unusual to see anyone trying to pull so much material together from so many different specialisms and technologies. It is only 242 pages long and because the material within it could easily have been expanded to fill at least five more volumes of the same length, it should be seen as an appetiser rather than a main course. It has the feeling of a work in progress and I would think of it as self-study guide rather than a traditional text. Although a college lecturer, Heinberg is more of a magpie than a traditional academic: he has picked a wide range of little gems from different internet discussion groups and publications. There is an excellent bibliography which is strongly web-based.

This is not a book which many members of the general public will pick up and read to the end. It will not be particularly useful in swaying people who are in active denial about the crisis. However, anyone trying to get a grasp on how dependent on oil and how vulnerable modern civilisation is will find it very useful indeed.

I found his account of the evolution of technology and the four basic classifications of tools in Chapter 1 particularly useful because it develops into a wide discussion of complex societies.

Chapter 2 covers energy use in the modern world and Chapters 3 and 4 provide what is probably as good a summary of the entire energy sector as one will ever get in 80 pages. It covers oil reserves, other fossil fuels, nuclear, and renewable energy sources. His summaries of the energy fields where my expertise lies are reasonably accurate and based on the best information available to the public. On the other hand, I think that his sections on biomass, hydrogen and the conservation of energy are too sparse. These chapters could be supplemented by reading books such as Feasta's *Before the Wells Run Dry - Ireland's Transition to Renewable Energy* and, because of the importance of oil depletion, Colin Campbell's *The Coming Oil Crisis*.

Chapter 5 covers the likely consequences for sectors of the economy such as agriculture and

Chapter 6 discusses strategies to deal with the crisis. Again, both are excellent primers but I suggest that readers might turn to *Natural Capitalism* or David Fleming's *The Lean Economy* before reading *The Party's Over* in order to understand some of the alternatives. Both *Natural Capitalism* and *The Lean Economy* are optimistic books which introduce readers to the terrible waste in our society. If people study them first, their reaction after reading *The Party's Over* will, I hope, be one of anger and not despair.

In summary, I think this is an excellent book and a very useful reference work for those interested in sustainability. It provides an extremely good, thorough summary of many of the key components of the inevitable contraction and dislocation of society if we continue on our present course.

Michael Layden is an engineer based in Arigna, Co. Roscommon where his family mined coal for many generations. His career has evolved from coal mining through wind energy to rational energy use. His work is increasingly devoted to what he terms 'the alternative dimension of sustainability.'

Time for the next agricultural revolution

TOM CAMPBELL

Agri-Culture: Reconnecting people, land and nature

Jules Pretty

Earthscan, 2002.

ISBN 1 85383 925 6 £14.95.



Ecologically-sound farming techniques - like planting beans in maize fields or raising shrimps in rice paddy - can produce more, and better, food than industrialised methods.

Something is wrong with our agricultural and food systems, Jules Pretty writes at the start of his latest book. Despite great progress in producing more food, millions of people remain hungry and malnourished, while others are eating too much or the wrong sorts of food. The wrong policies have also had enormously negative consequences for the natural environment. Can anything be done to rectify this situation? Yes, Pretty says, and throughout the book he spells out how an agriculture based on ecological principles and in harmony with people, their societies and cultures, can provide the world with both sustainable and productive farming systems.

Pretty makes the point that ecological farming systems are not necessarily new but that they are now beginning to spread and develop an impact in both the industrialized countries of the North and the 'developing countries' of the South.

His early chapters present the evidence to support the contention that industrialized agricultural systems as currently configured are deeply flawed. They certainly produce more food per hectare and per worker than ever before but only appear 'efficient' if we take no account of harmful side effects or 'externalities' - such as the loss of soils, the damage to biodiversity, the pollution of water, the harm to human health, and the disappearance of the family farm. Food appears cheap because these costs are difficult to identify and measure. Likewise the subsidies and export credits given to agricultural commodity producers in Northern producer countries, has meant that farmers in West Africa and elsewhere have had

their markets destroyed. In order to enhance efficiency, modern agriculture has created 'monoscapes' and the poorest, particularly in developing countries, have lost out.

Drawing on the findings of the largest-ever survey of sustainable agriculture in developing countries conducted by the University of Essex where he is based², Pretty shows how these initiatives, if spread on a larger scale, could feed a growing world population that is already substantially food insecure without harming the environment. Evidence from South America, Asia, China, and Africa shows that sustainable farming systems are having an impact not only on local communities but further afield too. The study surveyed 208 projects and initiatives. It found that nine million farmers have adopted sustainable agricultural practices and technologies on 29 million hectares.

Some projects which added a new productive element (such as fish, or shrimps in paddy rice) to a farm system were able to substantially improve the farm family's food consumption or increase its local food sales without reducing the cereal yields per hectare. Better water management such as water harvesting and irrigation scheduling had a similar effect. The inter-cropping of legumes such as the velvet bean, or mancuna, with maize, plus controlling pests such as weeds or insects with minimum, or zero, pesticide use, plus introducing locally-appropriate crop varieties and animal breeds led to, on average, a 93% increase in food production. In many cases, it was the synergy created by these improvements rather than any

² For a summary report of the University of Essex SAFE-World research project see: www2.essex.ac.uk/ces/ResearchProgrammes/SAFE47casesusag.htm

single intervention on its own that led to the overall increase in productivity. These findings are enormously significant, he says, as they counter the prevailing view that agro-ecological approaches offer only marginal opportunities to increase food production, and that industrialized approaches represent the best, and perhaps the only, way forward.

Pretty gives many examples throughout the book to illustrate how these productive and diverse sustainable farming initiatives are having a positive impact on people's lives and the environment. His research for the book brought him into contact with such practices as zero tillage and soil conservation farming in Brazil and Argentina, organic horticulture and land husbandry in Kenya, community-led water harvesting in the drylands of India, and the adoption of IPM (Integrated Project Management) by farmers' field schools in Bangladesh, to mention just a few.

Pretty's definition of sustainable agriculture is a farming system that seeks to make the best use of nature's goods and services without damaging the environment. It does this by integrating natural processes, such as nutrient recycling, nitrogen fixation, soil regeneration and natural pest control, within food production processes. It minimizes the use of non-renewable inputs that damage the environment or harm the health of farmers and consumers. It makes better use of farmers' knowledge and skills, thereby improving their self-reliance, and it makes productive use of people's collective capacity to work together to solve common management problems.

One reason that the present agricultural systems are failing, he argues, is because they have separated themselves from consumers. Industrialized countries have celebrated their agricultural systems' production of commodities, yet family farms have disappeared as rapidly as rural biodiversity. At the same time farmers themselves have received a progressively smaller proportion of what consumers spend on food. Reconnecting sustainable systems of production with consumers is essential, he argues, and he illustrates how this is already being successfully done through farmers' markets, community supported agriculture, the 'slow food' movement, box schemes, urban organic agriculture projects (such as those found in Cuba) and farmers' groups.

None of these alone will provoke systemic change, though regional policies and movements

are helping to create the right conditions. Pretty advocates two interrelated concepts which are important for rethinking the future of agriculture and can help this process of reconnecting people, land and nature. The first, 'bioregionalism', the integration of human activities within ecological limits, is a concept likely to be already familiar to readers of the *Feasta Review*. The second - 'Food-sheds' is new to this reviewer. It describes "self reliant, locally or regionally-based food systems comprised of diversified farms using sustainable practices to which consumers are linked in the bonds of community as well as economy" - the idea of giving an area-based grounding to the production, consumption and movement of food. Farming must reorient itself as a multifunctional activity with diverse environmental and cultural connections.

Pretty devotes an entire chapter to the GM controversy as he says it is impossible to talk about agricultural transformation without assessing biotechnology. He believes that certain biotechnological applications (if treated on a case-by-case basis) may have the potential to offer some contributions to sustainable agriculture in the future but that serious questions need to be asked first:

- Who produces such technologies and for what purpose?
- Are they likely to benefit poor and small farmers in the developing world, and, if so, how will such farmers have access to the technology?
- What are the adverse effects on the environment, on human health and food security? What of the fundamental ethical issues?
- How reliable are the regulatory systems and standards to control such technologies?

The final chapters focus on the need to develop social learning systems and to increase ecological literacy if we are to develop not only sustainable agricultural and food systems but also a more sustainable economy and society. A person's knowledge of nature and the land usually accrues slowly over time, and cannot be easily transferred. Yet, according to Pretty: "the immediacy of the challenge means that we must move quickly in order to develop novel and robust systems of social learning that build up relations of trust, reciprocal mechanisms, shared values and rules and new forms of connectedness". Great progress in developing

new forms of 'social capital' is already being made through the actions of hundreds of thousands of groups (particularly in developing countries) engaged in collective watershed, agro-forestry, microfinance, and pest management. These collective and participatory systems can also promote significant personal changes.

Despite this, the necessary transformation of global agriculture will largely depend on the radical reform of the institutions and policies that control global food supply and also on fundamental changes in the way we think. The

time has come, believes Pretty, for the next agricultural revolution.

This is an elegantly-written, compelling and highly-relevant book, especially in the light of the challenges facing European farmers as a result of the current CAP reform, but also in view of the consequences of the rapid 'modernisation' of agriculture in the developing countries of the South. As such it deserves to be read widely by anyone involved or interested in farming food and rural landscapes.

Tom Campbell teaches courses in Environment and Development, and Sustainable Livelihoods, at the Development Studies Centre, Kimmage Manor, Dublin. He also serves on the Executive Committee of Feasta.

Getting back to eating local foods

Bringing the Food Economy Home - Local Alternatives to Global Agribusiness

Helena Norberg-Hodge, Todd Merrifield and Steve Gorelick

Zed Books 2002

ISBN 1 84277 233 3 (pb) £13.95

ISBN 1 84277 232 5 (hb) £39.95



This book comes from ISEC, the International Society for Ecology and Culture, a non-profit organisation that promotes locally-based alternatives to the global consumer culture. That sums it all up. For example, it contrasts a Thanksgiving Day meal in the past when all the ingredients came from the farm or surrounding countryside, with the situation today when all the food can come from one vast company, which itself, rather than the farmer, absorbs the greatest proportion of the money the consumers pay.

The book despairs at conventional agriculture in the US - vast, polluting, exploiting - and draws hope from the slow, steady re-growth of human-scale farming and small farmers' markets. Part of the re-growth is due to Community Supported Agriculture (CSA) which involves consumers paying for their produce in advance to the farmer at the beginning of the year. In North America there are some 1000 CSA schemes in operation. Farmers' markets are another solution and,

largely as a result of both approaches, about 5% of British farmers, 15% of German and U.S. farmers and 25% of French and Japanese farmers now sell direct to consumers.

A lot of the alternative picture the book paints seems so very good: the development of small communities, more jobs, better health, the avoidance of vast monocultures, increased crop diversity, absence of overproduction, and more trust, honesty and integrity. The book is packed with statistics that will prove invaluable for anybody making the case for a sustainable future for agriculture, and the wider case for the re-localisation of our economy. It has a cheering collection of 'Things That Work' boxes and a long section of useful contacts.

While it is impossible to predict the future, it will be very interesting to read this book ten years hence. I believe that by then a lot of the suggestions will be in widespread use.

Ivan Ward has farmed organically in Wexford since 1986 growing grass, wheat and oats, and keeping sheep, cattle and horses. He now realises that organic production is not enough and is looking towards selling direct to the public and Community Supported Agriculture.