

Blair, Gordon Brown and Ken Livingston, giving first hand insight into Realpolitik.

He shares the triumphs of successful hard fought campaigns as well as the deep disappointment felt from political double dealing. On a more personal level, there are many fascinating anecdotes recalling his exploits to promote conservation in remote areas of the world, particularly relating to endangered birds such as Gurney's pitta of Thailand. Here he clearly shows the distressing unequal battle between unrelenting development and our fragile natural world.

Most interesting of all are his descriptions of campaigns run by FoE, from local activism all the way to having a significant presence at major international events such as WTO negotiations. Many campaigners might almost feel a touch of envy at the level of influence he appears to command.

The book lists 95 solutions. While these include individual action, it emphasises the need for action by society and the governments that represent them.

These solutions are grouped into ten sections, ranging from an initial description of the looming dangers of climate change, through greenhouse gas emissions, habitat protection, food production and the like. The later sections refer to the big issues: economics, globalisation, competition.

The more distressing of these realities are to be found in the section on globalisation. The greedy exploitation of the majority world by huge international businesses – aided and abetted by the WTO, the World Bank, the IMF and most of the governments of the bigger western nations – is powerfully detailed. You will be moved and angered by these acts of plunder in the name of free trade. The associated level of environmental damage is nothing short of egregious. For this alone the book is essential reading and will open the eyes of those who feel comfortably relaxed in our first world fool's paradise. A significant part of our wealth comes from resources virtually looted from these developing nations.

His final section, Making a Difference, is a call to arms to all those who feel great concern. It is a manual of how to run effective campaigns, how to become involved. An intriguing insight is given into FoE operations in the UK where FoE has two divisions, one which has no charity status and thus not subject to the recurring problem of political activity affecting charity status.

Overall the book is an excellent read, easy to understand and compelling in its call to action. It is not, however, a critical scientific analysis. It is pitched at the level of everyday people who hopefully will be moved to do something about this outrageous state of affairs. It is a "must read" if you believe in a fair and equitable world. More than anything else, it demonstrates that speaking out can and does work. If encouragement is needed, this is it.



PATHWAYS TO FUTURE

Alternative Pathways in Science and Industry: Activism, Innovation, and the Environment in an Era of Globalization

David Hess

2006

MIT Press

Review by Brian Martin

Environmental campaigning — where does it lead? It's possible to see small impacts, such as a government restriction on logging or more people riding bicycles. But what about the long term and the large scale? How do our efforts fit into a bigger picture?

There are visions and debates about this, for example about the role of grassroots action versus influencing governments or about international coordination of campaigns. But, perhaps surprisingly, there is little research that sheds light on these issues.

David Hess is a professor of Science and Technology Studies at Rensselaer Polytechnic Institute, in New York state, in a department with a long tradition of activist-oriented scholarship. His new book has a long title: *Alternative Pathways in Science and Industry: Activism, Innovation, and the Environment in an Era of Globalization*. It is not light reading either, with a large, complex argument and a wealth of case material. But it has some valuable insights.

At the core of Hess's argument is his concept of "undone science". Research is carried out in a range of areas. Some, like

nuclear power or automobile design, receive heavy funding. Others, like energy efficiency, are neglected by comparison. There is a lot of research that could be done in neglected areas, but is not: it is "undone." Groups with money and power have the greatest influence on what science is done — and undone.

The lop-sided development of science and technology disadvantages environmentalists. They can't offer the same level of authoritative backing for the alternatives they advocate. But not all is lost. Hess points to community-oriented research, some sponsored by social movement groups, some by socially-concerned scientists inside the system.

Given that powerful interests shape the "pathways" for science and technology, social movements can respond in several ways. One is to oppose damaging developments, in what Hess calls "industrial opposition movements". The anti-nuclear-power movement is a prominent example. Another response is to promote development of alternatives, filling in the gaps of undone science. Hess calls these "technology- and product-oriented movements". The promotion of renewable energy is one of these.

Hess also describes two other pathway alternatives. One is localism, which promotes local provision of goods and services, such as energy and food. The other is access, which promotes fair distribution.

Having laid out these four alternative pathways, Hess then examines developments in five broad areas: food and agriculture, energy, waste and manufacturing, infrastructure, and finance. This is an enormous enterprise. Hess draws on a huge range of sources plus his own investigations. To make the task manageable, he restricts his attention to the US.

The broad sweep of this analysis allows some general patterns to emerge. One of Hess's key findings is that movements seldom achieve a clear-cut victory. Instead, they bring about limited change, in a process that involves dominant groups making some changes but not nearly to the extent desired by radical campaigners.

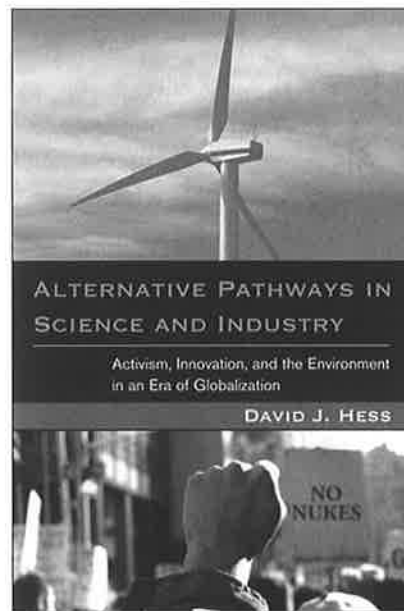
The anti-nuclear-power movement, for example, was able to dramatically slow the introduction of new plants but not to terminate the nuclear industry altogether. The movement for renewable energy has led to the uptake of some sources, such as wind power, but mostly within the mould of existing energy systems.

Alternative energy activists who hoped to see the emergence of self-reliant communities running their own affairs with their own energy systems have been disappointed; instead, most renewable systems are run by governments and companies. Hess finds this pattern of accommodation over and over.

This conclusion could be source of despair for idealistic activists. What's the point if every initiative is taken over by government and big business and used to maintain the status quo? But this is altogether too pessimistic. Hess questions the idea that social movements and dominant interests

have entirely separate agendas. Movements do influence the trajectory of science and industry, just not in exactly the way they'd like. By influencing technological pathways, movements make the world a better place and lay the basis for future movements.

Brian Martin is a Professor in the School of Social Sciences, Media and Communication, Wollongong University.



MARALINGA 'CLEAN UP' EXPOSED

Maralinga: Australia's Nuclear Waste Cover-up

Alan Parkinson

ABC Books

RRP \$32.95

ISBN 978 0 7333 2108 5

Available from ABC book sellers and via

<<http://shop.abc.net.au>>

Review by Jim Green

This is a fascinating insider's account of the botched 'clean up' of the Maralinga nuclear test site in the 1990s under the direction of the federal government.

Alan Parkinson, a nuclear engineer, was the government's senior representative on the project and had wide-ranging responsibilities. He was sacked after repeatedly voicing concerns over decisions made by the Department of Education, Science and Training (DEST) and its contractors.

Before the Maralinga 'clean up', tonnes of plutonium-contaminated debris were buried in shallow, unlined pits