Taking arms against the mercenaries

Alastair McIntosh thinks we need a Scott report for science

WHEN William Waldegrave was science minister, he presided over the publication, in 1993, of *Realising Our Potential*, the White Paper on science and technology. It was Britain's first science policy statement in 20 years. Pleased to have their value recognised, scientists lauded Waldegrave as their "thinking man" in the Cabinet. But with academics' freedom threatened by cuts and creeping commercialisation, few were in the mood to question the paper's ethics. Following the fiasco unmasked by the recent Scott report on the export of arms to Iraq we must now do so.

It has become clear that the White Paper was a business executive's charter and an arms dealer's dream. And it raises educational issues worthy of debate. Though it makes concessions to the pursuit of science for science's sake, its main thrust is to promote a new technological imperialism. Such imperialism is encouraged by the unprecedented market freedom secured in 1993 by the Uruguay Round of the General Agreement on Tariffs and Trade.

The White Paper states bluntly that its aim is "to achieve a key cultural change . . . between the scientific community, industry and government departments". It stresses the historical links between science, trade and national prosperity in Britain, stating that "the modern world was made possible by our great engineers". The principal goal of future science policy, according to this document, must be to strengthen those links. It sees the generation of national wealth as being the key to an improved quality of life, ignoring the fact that there is more to quality of life than material standard of living.

A whole chapter of the paper is devoted to the importance of science to the defence industry. Instead of producing spin-offs for civilian benefit, the paper urges military research to look for opportunities for "spin-in" from the civil to the defence sector, because, "as the Gulf conflict illustrated, technology can provide the decisive edge in military operations".

The paper ignores the view that science helps us to know ourselves better through nature. Gone is any acknowledgment that science can stimulate a sense of awe, creativity, service to others and respect for the environment. The driving force of this White Paper is profit—from what financier James Goldsmith calls an accelerating "hell's merry-go-round" of the global economy, where you either run faster or get trampled. That is the Moloch-like machine that science is now asked to worship.

Illustration: Ingram Pinn

One product of this functional, if not downright utilitarian, view of science is the concept of trade related intellectual property rights. Instead of colonising other people's countries to create wealth, we now colonise knowledge through global patents and copyrights. As a result, traditional processes and products are being knocked out of the marketplace.

In agriculture, for example, new patented seed varieties are replacing local ones. In Sri Lanka, only 27 of the country's 280 traditional rice varieties are still available. In the short term, these new seeds outperform the old ones, but they are designed for industrial agriculture, often to be used with fertilisers and pesticides that do little for the quality of the soil. Farmers who cannot compete with cash cropping on such a large scale are forced out of their rural livelihoods into urban destitution.

Is this what scientists want? And do we want our children's education to be reshaped by these values? The White Paper calmly states that the government has embarked on radical changes to the education and training system, including changes in the school curriculum. There will be more science festivals, for example, to encourage entrepreneurial scientific awareness among children. And the White Paper's impact is reverberating well beyond the realms of science. One senior figure in the British Academy has said that the paper describes "a metaphor for how government wants higher education in general to proceed".

The world deserves better. To build a sustainable future our children need a science that respects their wonder as they look into a microscope or a telescope, instead of immediately seeking to exploit it. They deserve a holistic science which, as Plato first advocated, teaches them about the relationship between themselves and nature. They should understand science as a tool for tackling focused problems, but they also deserve a science that embraces ethical issues—one where cooperation takes precedence over competition. All else is utilitarian training, not education.

Industry must, of course, have access to the best scientific brains. But to protect both nature and human dignity, industry must be part of an economy that serves the community—not vice versa. Let us hope that future science White Papers temper this unbridled competition with an ethic of cooperation—an ethic that scientists can profess with pride. □

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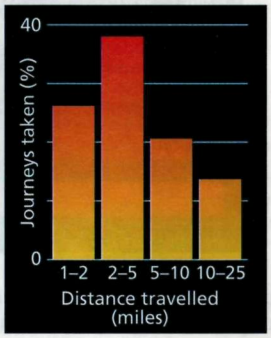
Green for danger...

THE government's attitude towards reducing the impact of transport on the environment is rather like St Augustine's view of chastity: "Give me chastity and continency—but not yet."

Eighteen months ago, the Royal Commission on Environmental Pollution published a radical review of transport policy. It wanted higher taxes on fuel to curb the growth of cars and improvements to public transport that would persuade people to leave their cars at home.

Now the mandarins at the Department of Transport have responded with a Green Paper which appears—to the untutored eye at least—to answer that report with some significant shifts in government policy for passenger transport.



The government now accepts that the growth in the number of cars on the roads has to be curbed and that more should be spent on improving public transport instead of building new roads. It wants people to walk and cycle instead of making short journeys by cars.

These changes would undoubtedly reduce the impact of transport on the environment if they were carried out properly. A quarter of all car journeys are less than two miles long. These are some of the most polluting journeys, because catalytic converters take a couple of miles or so to warm up and work efficiently.

But there is little chance of cleaner air when the Green Paper is so craven about concrete action. For starters, it resists the idea of setting any targets for curbing the growth of traffic. It will not set a ceiling for carbon dioxide emissions by traffic.

The superficial gloss on the Green Paper often conceals a darker reality. It appears that the priority for the road programme will shift from motorways to bypasses. The reality is that the government wants to attract private finance for building more bypasses.

And it seems that the government may now favour spending on public transport. But the buses have been privatised, as have half the trains. Will the government help private industry? The Green Paper does not say.

On freight transport, the paper is less principled. The Royal Commission pointed out that increases in the maximum permitted weight of lorries had increased the number of juggernauts on the road because massive lorries are more profitable.

Buried in the small print of the Green Paper is a proposal to increase the maximum weight of lorries yet again. It is a controversial issue. Perhaps that is why the proposal is not mentioned in the summary of the Green Paper, designed for public consumption.

A narrow kirk in Edinburgh

OVER the past few weeks, Edinburgh University has supported its controversial psychologist Christopher Brand, on the grounds that "academic freedom" allows his studies of intelligence, race and genetics. So far, so good—intellectual freedoms are essential.

How strange then that during these same weeks, Edinburgh University has decided to be rid of its outspoken Centre for Human Ecology, where staff and students are more likely to be debating the relationship between the profit motive and the decline of reverence for the land than whether the mean IQ of black people is less than that of whites.

The centre has an international reputation, its former students and visiting researchers have published numerous books and papers, and its MSc course is in demand from students around the world. An attempt to shut it down last year was averted only at the very last moment. Now, the contracts of its staff are to be ended, its MSc course closed and its library dissolved.

The centre has always, of course, been far too radical for many in the university. Its members have campaigned against the development of "superquarries" and questioned the pattern of land ownership, with 80 per cent of Scotland in the hands of 900 families. Even "environmentally friendly growth" has been challenged by asking whether some people might be more fulfilled with less resources.

Overall, there will be a considerable loss to the university's intellectual tradition. Among those to go will be Alistair McIntosh, teaching director of the institute, whose views on the relationship between science and ethics can be read in this week's Forum. The MSc students will finish their courses and depart, and a tradition of fearless inquiry will be broken. Edinburgh University should have been big-hearted enough for both Brand and McIntosh to flourish within its walls. □