

have a significant interest in this area. Increased involvement in space exploration would reduce the aerospace industry's reliance on military production (and arms exports), while maintaining employment and innovation. For example, had Britain not opted out of the European Space Agency's contribution to the International Space Station (ISS), companies like BAE could have devoted more of their business to building ISS components and less to selling weapons. As it happens, opportunities for greater investment in space exploration will soon be upon us, stimulated by the declared intention of the US to return astronauts to the moon by 2020. This is leading to the emergence of a global strategy for space exploration in which the British scientific community is already involved, and to which, given the political will, our aerospace industry could make a real contribution. Indeed, in early January the government launched a public consultation to inform the UK Civil Space Strategy 2007-10.

The counter-argument will be that selling arms abroad brings money in, while government-sponsored space activities amount to a straight subsidy. However, this ignores not only the fact that the arms industry is itself already heavily subsidised, but also the scientific and cultural benefits of space exploration, which deserve government support in their own right. Why? First, the exploration of the solar system will add greatly to scientific knowledge. Second, space exploration is inherently exciting, and as such is an obvious vehicle for inspiring young people to take an increased interest in science and engineering. Third, space exploration provides a natural focus for international co-operation, and may help to build a stronger sense of global solidarity. And fourth, the development of a space-based industrial infrastructure may one day contribute to the global economy by providing access to essentially unlimited supplies of energy and resources.

Thus in addition to helping the disarmament process, an expansion of space activities can be seen as an investment in the future of humanity. No comparable arguments can be made in favour of the continuing, and largely unnecessary, mass production of military hardware by industries that could just as easily be contributing to the peaceful exploration of the universe. ■

SLOW JOURNALISM

BY SUSAN GREENBERG

Why doesn't Britain have a culture of serious non-fiction journalism like the US?

THERE IS A concept in marketing called "the end of the middle." The idea is that because we can now get goods and services of reasonable quality at the cheap end of the market, the middle of the market loses share as people are only prepared to pay more if they get something truly luxurious or special. Hence, for example, the growth of the "slow food" movement.

Does this concept apply to information? We get basic news cheaply, on air and online. In the middle is traditional print journalism, the sector that is losing readers. At the luxury end, there should be a growing market for essays, reportage and other non-fiction writing that takes its time to find things out, notices stories that others miss, and communicates it all to the highest standards: "slow journalism."

There certainly seems to be some appetite for such content in Britain, reflected in rising sales for literary non-fiction books and growing audiences for new forms of documentary. But it has yet to translate into any dramatic changes in publishing. Newspapers may be becoming more magazine-like, and therefore in theory more hospitable to slow journalism. But they are also adopting an increasingly narrow definition of "entertainment," in an attempt to make themselves more accessible. In the magazine world, *Granta* provides a prestigious platform for reportage and travel writing, but it is very nearly on its own—*Prospect* being another exception. The internet provides a new outlet, but seldom the

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money to support costly research.

Many ambitious non-fiction writers now turn to writing books. But as the *New Yorker* writer Jane Kramer has said, literary non-fiction "isn't a talent that can be honed in a garret. It needs constant, and often expensive, engagement with the world."

Britain clearly lags behind the US in serious non-fiction journalism. Writers here look jealously at 10,000-word features in *Rolling Stone*, eclectic "fact pieces" in the *New Yorker*, expansive investigations in the *Atlantic* and high-status non-fiction prizes such as the Pulitzer. In US higher education, non-fiction is routinely included in creative writing degrees and both literary and "narrative" journalism are firmly on the map of journalism education.

The difference is partly economic. America's scale makes it easier to sustain minority tastes—1 per cent of a big audience is still big—and its publications are closer to the world's centres of political and cultural power.

But there are other factors at work. After all, many people in Britain write fiction on the strength of the kudos they hope to win if the work gets published. Why don't they think there is a pot at the end of the non-fiction rainbow?

The main reason is the belief in Britain that literature is, by default, fiction. Occasionally, pieces of fact-based literature even get reclassified as novels once they are judged to be "good"—Alain de Botton has described how the publisher of his first non-fiction book tried to brand it as a novel. "There's a feeling in Britain that to be a writer is to be a novelist," he said.

Literary figures such as Daniel Defoe, Charles Dickens and George Orwell are given their due as novelists, but their substantial body of journalistic work is left largely unrecognised. In journalism degrees, classes on literary journalism are rare, while in creative writing degrees there are few places that provide a sustained look at non-fiction in all its forms.

Why is fiction valued in British culture and not the literature of fact? One answer lies in the legacy of Romanticism, which came to define creativity in opposition to industry. The creative imagination, writes Terry Eagleton in *Literary Theory*, was "loftily removed



from any sordid social purpose.” In America, by contrast, creativity became a way of understanding firsthand experience, making Americans quite comfortable with the concept of “creative non-fiction.”

There are some signs of change. The Samuel Johnson prize for non-fiction writing was televised last year for the first time and a British “Pulitzer,” proposed by the new Reuters Institute for the Study of Journalism at Oxford University, may provide another incentive to writers of non-fiction. The increased number of journalism courses in higher education is already providing encouragement and support for those who want to take it more seriously. But these are only the first steps.

We can do more to recognise the potential of non-fiction, like fiction, to aim for a standard that will stand the test of time. We can allow that all writing, factual or not, is constructed and shaped—that *all* good writing is creative—and still test our stories against reality. We can provide more outlets for literary journalism, more prizes, better financial rewards, and a real determination to end the dominance of our “fast” news culture. Only then will a genuine “slow journalism” movement emerge. ■

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SLOWER TECHNOLOGY

BY DAVID EDGERTON

*Technology means wood
and corrugated iron as well
as IT and gadgetry*

OUR THINKING ABOUT technology is deficient. We are over-impressed by apparent novelty, by speed, noise and general whizziness. We need a more grown-up way of thinking about the past, present and future of technology.

The term “technology” has in recent

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decades become closely associated with invention, innovation, creativity and the future. Today it sometimes seems to mean little more than novelties in information technology. Students of technology have a narrow focus: they study research and development, patents and the early stages of technical developments. But to understand technology *in society*, one needs to study technologies that are in wide use and are not necessarily so whizzy or so new.

Invention-centred timelines are entrenched in our understanding of technology and history. The technology of 1900 is taken to be the motor car, electricity and synthetic chemicals; that of 1950, rockets, nuclear weapons and power, and computers; that of 2000, biotechnology, information technology and nanotechnology. These are the bread and butter of historical texts, museum displays, television documentaries and many of the long-wave theories of economic development. We all seem to have absorbed the same account of the trajectory of modernity. What we have is an account that is highly biased towards the early stages of very few technologies.

We can illustrate the point with some counter-examples. The number of horses in US agriculture, by far the most mechanised in the world in the early 20th century, didn’t peak until 1915. Even in the second world war the horse was crucial at least to some combatants. The Wehrmacht marched on the Soviet Union with more horses than Napoleon; it even had more horses per soldier. The horse was more important than the V2 rocket to the Nazis; indeed the V2 was economically and militarily irrational, killing more people working for the Germans than for the Allies. After 1945, one of the greatest unheralded changes was the massive rise in the land and labour productivity of agriculture, which was much faster than that of industry. This was down to many factors, among them synthetic nitrate, irrigation, new crop varieties and tractors, all techniques that were at best decades old. Chemistry is missing from our history of the 20th century, despite the importance of fertilisers and all sorts of new materials, from plastics to herbicides.

Remarkably, that great pre-industrial fuel and construction material, wood, has become ever more important. Paper consumption increases, for

all the talk of paperless offices. Packaging booms: think of all those Amazon books in cardboard covers arriving by post. And consider the case of Ikea. Ingvar Kamprad, its founder, is on some estimates richer than Bill Gates. He makes money from designing and selling wood furniture using Fordist mass production techniques. His biggest-selling product is not a computer desk, but the “Billy” bookcase. Ikea subverts the modern and postmodern notions of what we are in another way—it has shifted part of the production and transportation of furniture away from specialist employees back to the household. He has created a new urban peasantry, who have to load, transport and build furniture.

Wood is at the centre of one of the first eco-economic wars. A few miles



The number of horses in US agriculture peaked as late as 1915

north of the town of Fray Bentos, Uruguay, on the river Uruguay, the Finnish firm Botnia is building a wood-pulp mill. The factory will process timber from Uruguay’s new plantations. The visual and chemical pollution that will allegedly result has caused Argentinean environmentalists to obstruct two of the international bridges that cross the river between Argentina and Uruguay and to threaten the third crossing, at Salto, as well as ferry services from Buenos Aires. This is a major regional dispute resulting in great damage to the Uruguayan economy.

The new is often older than we think. A few years ago, Naomi Klein’s *No Logo* was all the rage in anti-glob-

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