

Collected works

Patricia Fara on revolutionising the history of science

WHICH revolutionary book changed the course of science in the 17th century? Was it Newton's weighty tome on gravity or Edward Tyson's anatomical study of the orang-utan? The answer might seem obvious, but the essays edited by J. V. Field and Frank James in *Renaissance and Revolution* (Cambridge University, £19.95/\$29.95, ISBN 0521627540) illustrate how historians are challenging traditional assumptions about the past.

Fifty years ago, the influential historian Herbert Butterfield had no doubts about the birth of modern science. For him, the Scientific Revolution of the 16th and 17th centuries "outshines everything since the rise of Christianity". But are changes that took place over two centuries really revolutionary? Does it make sense to use the word "scientific" for a range of activities, such as Newton's alchemical experiments, that bear little resemblance to modern science? And given the current interest in genes and evolution, how are we to accommodate the biological sciences within historical narratives that trumpet the rise of physics? Recently reprinted, the 17 academic papers in *Renaissance and Revolution* explain why historians of science want to revolutionise how we think about the "Revolution".

But abolishing the Scientific Revolution means rethinking the Renaissance of the 14th to the 16th centuries. Beautifully written and illustrated, Lisa Jardine's *Worldly Goods* (Papermac, £12, ISBN 0333674464), provides an exciting and novel interpretation. Reflecting historians' current preoccupation with the growth of our modern consumer society, Jardine concentrates on money, commerce and things. By rejecting the conventional focus on an artistic and literary rebirth of classical values, she carves out a new place in cultural history for early science. She explains how globes and scientific instruments played vital roles in developing the trade routes that enabled raw materials and finished goods to travel round the world. Mingling Copernicus and Regiomontanus with Holbein and Giorgione, her narrative brings to life the international community of cartographers, instrument-makers and publishers who helped to produce and market beautiful Renaissance artefacts.

For another approach to the Renaissance, try Nancy Siraisi's *The Clock and the Mirror* (Princeton University, £37.50/\$49.50, ISBN 0691011893). Cardano, who was an astrologer and mathematician, as well as a medical practitioner, included blood

letting, dream analysis and magic charms in his therapeutic repertoire. Siraisi abandons the birth-to-death approach of conventional biographies. Instead, she uses Cardano as a mirror to reflect the philosophies and physicians of his complex intellectual world—the historical equivalent of Cardano's own recommendation that "the studious man" should continually consult a mirror to monitor his physical degeneration.

Perhaps historians have been heeding Cardano's advice, since they are now examining bodies with a keen intellectual interest that parallels the physical fashion for self-modification with tattoos, body-piercing or cosmetic surgery. But this current obsession is by no means new, as is amply demonstrated by the contributors to Dominic Montserrat's *Changing Bodies, Changing Meanings*



(Routledge, £45, ISBN 0415135842). Greeks, Egyptians and the early Christian martyrs recognised that altering your body is an ideological statement that you want to change society.

Considering Egyptian mummies as cyborgs can be heavy going. However, even if your French is up to scratch, you may well feel overwhelmed by the barrage of facts in David Cosandey's *Le Secret de l'Occident* (Arléa, F175, ISBN 2869593368). His "Secret of the West" is *mereupory*—a concept whose name is so hard to pronounce that it's unlikely to catch on. Cosandey contends that science has flourished for the past millennium in Europe because the continent's uniquely high ratio of coastline to land area encouraged economic prosperity and stability. This zany attempt at a triumphalist Plato to NATO account provides a salutary reminder that finding new ways of writing scientific history is not always such a good idea. □

BESTSELLERS from Melbourne

1

Sacred Balance by David Suzuki and Amanda McConnell, Allen and Unwin

2

Flying Lasers, Robofish and Cities of Slime by Karl Kruszelnicki, HarperCollins

3

Cannibals, Cows and the CJD Catastrophe by Jennifer Cooke, Minerva

4

Stephen Hawking's Universe by David Filkin, BBC

5

Splendors of the Universe by Terence Dickinson & Jack Newton, Little Hills

6

How the Mind Works by Steven Pinker, W. W. Norton

7

Before the Beginning by Martin Rees, Pocket Books

8

Ripples on a Cosmic Sea by David Blair and Geoff McNamara, Allen and Unwin

9

Life's Grandeur by Stephen Jay Gould, Jonathan Cape

10

Kinds of Minds by Daniel Dennett, Phoenix

TV star Suzuki offers a vision of sustainability. Information supplied by Angus & Robertson (Fax 61 3 9670 2565) for bestsellers first published in hardback or paperback within the past 12 months. See Planet Science at <http://www.newscientist.com> for more reviews. Selected books are available at the Planet Science shop. **NSI**