

hotels were required to launder sheets after each occupant, and to use sheets sufficiently long that they could be folded back to protect against the potentially dangerous blanket.

In these and a thousand other ways, the gospel of germs influenced human behaviour and created our world. By the early twentieth century, scientific orthodoxy taught that people rather than things were the main receptacles of communicable disease, and household dust began to be seen as a nuisance rather than a death trap. Nevertheless, many household practices that started in the early decades of germ theory continued as established rituals, and polio replaced typhoid as an important source of parental anxiety. Polio vaccines and antibiotics seemed to render the gospel of germs an historical relic until the microbe reared its ugly head again in the past two decades.

Tomes's book is a fine example of the new social history of biomedical science, full of fascinating detail, elegantly written and cogently argued. In exposing the values and practices of our ancestors, it has much to teach us about ourselves. □

W. F. Bynum is at the Wellcome Institute for the History of Medicine, 183 Euston Road, London NW1 2BE, UK.

## From meat to merchandise

### Economy and Society in Prehistoric Europe: Changing Perspectives

by Andrew Sherratt  
Edinburgh University Press/ Princeton University Press: 1997. Pp. 561. £45, \$59.50

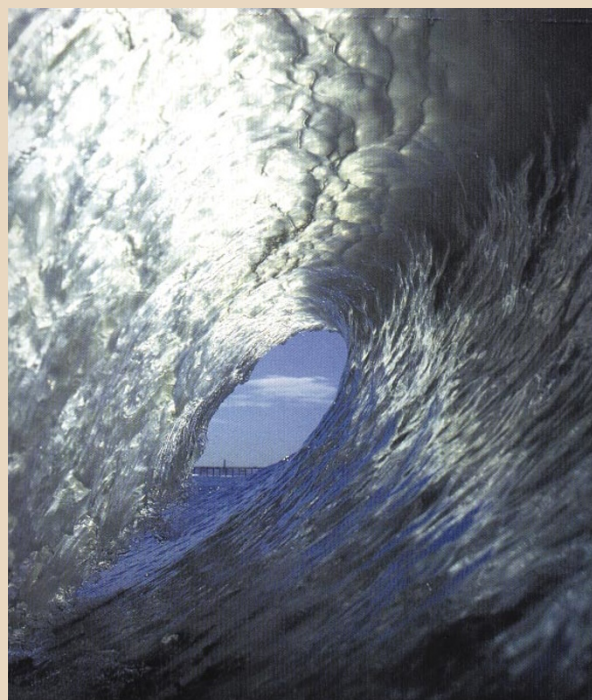
John Robb

Controversies about prehistoric social relations tend to be as opaque to outsiders as the theological quibbles in *The Name of the Rose*. Why does it matter whether Christ owned his sandals or merely used them? The answer, of course, is that such minutiae are the vocabulary of much broader polemics. In the same way, Andrew Sherratt's *Economy and Society in Prehistoric Europe* must be read on several levels. In building detailed factual arguments about wheeled vehicles, the plough or mind-altering substances, Sherratt is also constructing reference points in a particular skyline rising out of the urban sprawl of contemporary archaeological theory. It is for this reason that the essays collected in this book are likely to continue to arouse controversy.

Take the 'secondary products revolution', for example, which still remains Sherratt's best known Big Idea. This is the generalization that the earliest Eurasian farmers merely ate their animals; only several millennia later did they develop a suite of 'secondary products' for extracting more from livestock and

## Surfing the wet

When you leave your computer or lab bench for a holiday by the sea, you may not care about the physics of wave motion, the origin of swell, or the fact that a water molecule has a circular motion and barely moves forwards at all as a wave passes. You may just want to go for a swim, watch waves break on the shore, or plunge headlong into the surf, board in hand. Either way, the third edition of Drew Kampion's *The Book of Waves: Form and Beauty on the Ocean* (Roberts Rinehart, \$29.95, pbk) shares your view. Part text, part photo gallery, it celebrates waves from ripples to breakers.



landscapes, such as dairying, wool production, seasonally migratory pastoralism, and traction devices such as the plough and cart. When first published in 1981, this concept changed the face of economic prehistory by punctuating the long, static stretch between the adoption of agriculture and the rise of Iron Age states, much as Colin Renfrew's introduction of the chiefdom concept did for social structure.

As an empirical generalization, the secondary products revolution has come in for its share of criticism. Many archaeologists would say that the evidence for the spread of ploughs, carts, dairying and wool use from the Near East, starting in the fourth millennium BC, is certainly suggestive but far from conclusive. Given the perishability of wood and other organic technologies, and the imprecision of economic reconstruction based on faunal remains, one source of nagging doubt remains the argument's reliance on the absence of early evidence for ploughing and pastoralism in regions such as western Europe. After all, many of the primary sources — rock art, sealings, writing and other administrative technology — are entirely lacking in much of Europe for all of prehistory. But it would take considerable expertise to argue these points with Sherratt over the breadth of European prehistory.

On the parallel, and elusive, plane of theory, archaeologists worry about how to fit images of the ancient world together in ways dictated only loosely, if at all, by facts. The concept of the secondary products revolution requires and creates a certain theoretical space that has evolved over the past couple of decades, as Sherratt notes in his introduction. He would now jettison the original idea — as much a hallmark of 1970s 'new archaeology'

as chiefdoms — that population pressure was an ultimate cause of the economic changes.

Thus freed, the concept meshes comfortably with the idea of a transition in the Late Neolithic and Early Bronze Age to an economy whose surplus production was used for prestigious exchange, display and consumption. Secondary products of cloth, food and drink were used to trade, to give away ceremonially, to use ostentatiously, and to feast. The combination of these two ideas forms a central plank of syntheses of European prehistory compiled in the past two decades.

But the theoretical landscape has broadened rapidly, and Sherratt's vision increasingly represents only a part of it, although one that is likely to endure. His focus on continent-scale patterns and coherent systems runs against currently popular attempts to explore the complexities and discontinuities of meaningful experience on a relentlessly local scale, and his models tend to give primacy to political and economic aspects of life over cultural identities. Exponents of many theoretical schools would discount his vision on these grounds at least as much as on the archaeological details. Yet Sherratt's own changing interests have generated new frames for the secondary products revolution picture — some fashionable (such as his focus on narcotics and intoxicants in prehistory), others stubbornly unfashionable (such as his redoubled efforts to trace the diffusion of new technologies from a Near Eastern cradle).

The works collected in this book present a wide range of Sherratt's thinking, including general discussions of prehistoric social structure, detailed models of Neolithic trade systems, intriguing attempts to trace the prehistory of alcohol and narcotics use, and

Sherratt's personal entries in the two traditional sweepstakes in later European pre-history: "What caused Neolithic megaliths?" and "Who were the Indo-Europeans?"

The entire volume stands as an attempt to live up to Sherratt's general conclusion: "To succeed in his or her trade, the prehistorian must always be a generalist." In Sherratt's case, the effort is clearly successful. The scenarios are imaginative and have impressive depth, and the evidence is clearly marshalled. Even when disagreeing with the approach or conclusions, one can learn a tremendous amount. □

John Robb is in the Department of Archaeology, University of Southampton, Southampton SO17 1BJ, UK.

## No laughing matter

### The Trembling Mountain: A Personal Account of Kuru, Cannibals and Mad Cow Disease

by Robert Klitzman

Plenum: 1998. Pp. 300. \$27.95, £16.94

Colin L. Masters

The outbreak of kuru among the Fore people of Papua New Guinea that climaxed in the mid-1950s has many potential lessons for contemporary UK society, as it tries to understand the emergence of a new variant of Creutzfeldt-Jakob disease (CJD), linked with the recent outbreak of bovine spongiform encephalopathy (BSE, or 'mad cow disease').

Robert Klitzman's breezy narrative

account of his fieldwork experiences in 1981 joins a growing list of monographs aimed at the wider community, notably *Fatal Protein: The Story of CJD, BSE and Other Prion Diseases* by Rosalind Ridley and Harry Baker (Oxford University Press, 1998). With varying degrees of success, these accounts convey the unprecedented effects of a devastating, infectious neurological illness, either in the setting of a Stone Age pre-scientific culture (the Fore) or in the technological sophistication of modern Europe (the British). With kuru, the Fore reacted with claims of sorcery, hysterical conversion reactions and retaliatory armed conflict. With the emergence of BSE and new-variant CJD, the British went through phases of denials, cover-ups and trade embargoes while the daily tabloid newspapers conducted their contemporary versions of hysterical reportage.

Klitzman's retelling of the kuru saga lacks the authoritative analysis one would have expected from an academic psychiatrist. But at the time of his first visit to Papua New Guinea, he was a naive Jewish boy from Long Island, New York, trying to decide on a future career in medicine. As a young college graduate, he had fallen under the spell of Carleton Gajdusek at the US National Institutes of Health, and travelled to Papua New Guinea to work with Michael Alpers in recording the disappearance of this infectious disease.

Although the transmissibility of kuru through cannibalism had been well established, there remained many unanswered questions, particularly relating to the mechanisms of transmission (route and dose of inoculum) and the effects of genetic suscep-



Seeking stability: in the language of the Fore people, the word *kuru* means 'to tremble'.

tibility. For example, were those who escaped infection participants at cannibalistic feasts at which they (the "natives"; Klitzman is very fond of this term) had eaten only the fingers and feet of the deceased? Klitzman searched and found examples of common point exposures with subsequent development of disease. He discovered the difficulties of doing fieldwork in kuru epidemiology where dirt roads were only just beginning to open up, most travel was on foot, and he was dependent on the cooperation of local guides whose senses of time and purpose were superficially different from those of a young New Yorker. ("The natives were skilled at getting what they wanted... They, too, were greedy, scheming, and deceptive when necessary.")

Themes of cultural diversity and evolution, the impact of western technology and the infusion of scientific endeavour into a rapidly changing Stone Age culture, which are clearly set out in the Gajdusek diaries and field notes (*Kuru: Early Letters and Field-Notes from the Collection of D. Carleton Gajdusek* by J. Farquhar and D. C. Gajdusek; Raven, 1981) fail to be conveyed by Klitzman's first-person narrative style. Although more compelling than the semi-fictional recollections of Vincent Zigas in *Laughing Death: The Untold Story of Kuru* (Humana, 1990), Klitzman's account is aimed at his fellow New Yorkers, most of whom have never heard of kuru, CJD or BSE, let alone Papua New Guinea.

There are surprisingly few first-hand accounts of the kuru story. During the next decade, when the full implications of the BSE crisis in Britain become known, it will be possible to look back on the emergence and

## Bamboozled by habitat loss



Deforestation leaves giant pandas isolated and with nowhere to go when bamboo, their staple diet, periodically dies. Renowned photographer

Heather Angel visited China to capture these endangered animals on film. The results can be found in *Pandas* (Voyageur Press, \$16.95).