

On the edge

By Crispin Tickell

Published: June 28 2008 03:00 | Last updated: June 28 2008 03:00

[Print](#)

Apocalypse: Earthquakes, Archaeology

and the Wrath of God

by Amos Nur with Dawn Burgess

Princeton University Press £15.95

309 pages

Energy in Nature and Society:

General Energetics of Complex Systems

by Vaclav Smil

MIT Press £20.95, 480 pages

FT Bookshop price: £16.75

The Industrious Revolution:

Consumer Behavior and the Household

Economy, 1650 to the Present

by Jan de Vries

Cambridge University Press £13.99

327 pages

FT Bookshop price: £11.99

During the past few years we have become more aware of the many risks facing human society. The current threat that preoccupies us is climate change or, rather, climate destabilisation. But climate is only one of the factors that can push societies one way or another. Looking at the broad sweep of history, rather than focusing on particular events, we can see a sometimes unfamiliar picture of the natural as well as human events or catastrophes that have changed the course of civilisation.

Three new books offer different ways to look at history and risk. *Apocalypse*, by a geophysicist at Stanford University, considers the influence of earthquakes on civilisation; *Energy in Nature and Society* is by the author of many books on energy and related subjects from the University of Manitoba; and *The Industrious Revolution* is about consumer behaviour, written by a professor of history and economics from UC Berkeley. Each seeks to widen, and to some extent correct, familiar interpretations of history.

We all tend to get into bunkers of speciality. These books help to knock down the barriers between them. They carry important implications for how we conduct ourselves and our business, and the future management of the world economy.

Earthquakes are a good example of what can happen to civilisation. Particularly in the Middle East and the Mediterranean basin, they occur fairly often. Yet in the absence of written evidence, archaeologists

and others tend to assume human actions explain destructive events, rather than natural catastrophes.

In *Apocalypse*

, Amos Nur goes into the deep science of movement within the earth's crust. He examines the evidence in a multitude of individual cases from Troy to Teotihuacan in Mexico. While the results can be fortuitously happy, such as the conservation of the Dead Sea Scrolls, the recent earthquakes in China have reminded us of the cruel realities. Earthquakes may even have contributed to the demise of Bronze Age civilisation as a whole, argues Nur.

Throughout the book, Nur shows a certain exasperation with those who consistently blame humans for what happens. Yet his own vision is also limited, and the book's title is something of a misnomer. "Apocalypse" has many forms beyond earthquakes: from volcanic eruptions, tsunamis and hurricanes to hits of asteroids from space. But this book is fascinating in itself: Nur reminds us that to explain past events, we must consider all the available evidence.

Vaclav Smil's *Energy in Nature and Society* is intimidatingly comprehensive. He explains how all life on this planet, in its incredible diversity, comes from sunlight working through the agency of photosynthesis. From this process comes bacteria, plants, animals and eventually the intricacies of human civilisation.

Before the industrial revolution humans derived the energy they needed for food and survival from their own labour and that of animals, use of water flows, wind power, and exploitation of living material in its myriad forms. Then humans learnt to use fossilised stores of solar energy in the form of coal, oil and gas, and generated electricity by these and other means, including nuclear fission. In this way, food supplies became potentially rich and ample, and existing problems and inequities became those of distribution rather than of supply.

So far so good. But we are now coming up against the environmental stops. Smil draws a parallel between fossil-fuelled civilisation and organic life generally: both depend on steady inflows of raw materials, and can radically change conditions on the surface of the earth. As we know, the enormous increase in human energy generation and consumption is altering this situation.

The figures Smil quotes show that future problems may relate less to short-term shortage of resources and more to the long-term habitability of the earth's surface. He foresees the need for lower energy use in affluent countries, smaller human population overall, greater social and economic equity and, above all, better balancing of environmental means and social ends. Let us, he concludes, live up to the designation of our animal species as "sapiens": wise.

This is a real work of scholarship. Smil makes few concessions to casual readers, and the book is encumbered with acronyms, graphs and equations.

But as a whole it's well organised and admirably expressed. And its message is a powerful warning for those who want still more energy, still more people, and still more economic growth and development (as defined in current crude terms) as a solution to our problems.

Jan de Vries's book, *The Industrious Revolution*, opens up new perspectives on recent history, especially of western Europe. De Vries suggests that changing attitudes towards the role of the family within the household, and division of labour within it, contributed to the industrial revolution. With many variations among social classes, more recently there has been a reallocation of resources and a new focus on consumption within the market system, together with changing roles for women and different services provided by the state.

Expectations have greatly changed, and with them the place of work in the economy. We now have to ask where we go now. Are we in a consumptive as well as a consumption society?

In spite of the scholarship and elaborate references, this book will interest all concerned with human behaviour in its many forms. It is narrower in scope than the others, and suffers from some repetition and economists' jargon.

But it contains interesting insights into the ways behaviour has changed over the past couple of centuries, and raises some of the same issues for the future as Vaclav Smil. Can we really continue on our present superficially attractive but ultimately unsustainable course? Are we really "sapiens" after all?

Sir Crispin Tickell is director of the Policy Foresight Programme in the James Martin Institute for Science and Civilization at Oxford University

Copyright The Financial Times Limited 2008

"FT" and "Financial Times" are trademarks of the Financial Times. [Privacy policy](#) | [Terms](#)
© Copyright The Financial Times Ltd 2008.