

with the empathy necessary for identifying human needs, “which are then distilled into an actionable clarification of the problem”. Shneiderman is ambitious, envisioning collaboration between designers, scientists and engineers to tackle globally important issues.

The book is strongest in the areas in which Shneiderman is most enthused, such as the advantages of teamwork or the concept of prototyping as research in practice, for instance using 3D modelling and computer-assisted virtual design tools. His discussion of the challenges and potential of big data and open access as ways of sharing research findings and approaches to social issues is informed and thoughtful. There is a refreshing pragmatism about his attention to matters such as the business of making a research career. Shneiderman is good on career psychology, and on the scarcity of women at professorial levels in particular. He is especially good on the human dynamics of collaboration. Alongside sensible advice on the dos and don'ts of partnerships and the optimal size and mix of skills in groups, he pays attention to matters such as leadership, status management, brokerage, goal-setting and communication among different personality types.

But *The New ABCs of Research* can be over-schematic and repetitive. Its acronymic principles pop up like alerts on a smartphone. Clichéd metaphors (for example seeds, root and flowers) stand in for descriptions of the dividends of interdisciplinary work or painstaking policy recommendations. Zealotry sometimes erodes the book's gravitas.

Shneiderman provides several case studies, including sketches of ABC-effective research organizations, such as the German Fraunhofer Institutes, or Bell Labs in the United States. Most interestingly, he discusses individuals including Nathan Eagle, founder of Jana, a company that specializes in deploying mobile technologies as local solutions to issues in the developing world, for example to encourage blood donation. But these studies tend to serve not as moments for exploration, but as campaigning examples of ABC in practice. That over-insistence is a touch reminiscent of pop business-studies books for under-confident entrepreneurs.

Like several books of its ilk, I wished it was both longer to substantiate the case, and shorter to get past the too-readily recognizable. But overall, *The New ABCs of Research* deserves a readership for the boldness of its ambition and the promise of its ideas. They deserve debate and implementation. ■

**Rick Rylance** is director of the Institute of English Studies at the University of London's School of Advanced Study. He was until recently chief executive of the Arts and Humanities Research Council and Chair of Research Councils UK.  
e-mail: rick.rylance@sas.ac.uk

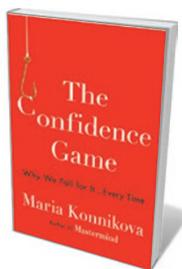
## Books in brief



### The Shock of the Anthropocene: The Earth, History and Us

Christophe Bonneuil and Jean-Baptiste Fressoz (translated by David Fernbach) VERSO (2016)

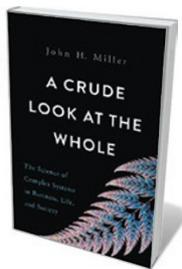
This bold, brilliantly argued history of the Anthropocene epoch is a corrective to cosy thinking about humanity's grave disruptions to Earth systems. Christophe Bonneuil and Jean-Baptiste Fressoz draw on climate science, economics and technological history to reveal how, starting in eighteenth-century France, imperial narratives that saw people and planet as a “totality to be governed” laid the conceptual basis for the crisis. They call for a “new environmental humanities”, and a shift away from market-based approaches that feed the beast.



### The Confidence Game: Why We Fall for It... Every Time

Maria Konnikova VIKING (2016)

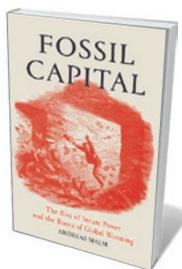
Following her nifty how-to on honing cognitive ability, *Mastermind* (Viking, 2013; see *Nature* **492**, 183; 2012), journalist Maria Konnikova adroitly explicates the surprising psychology behind the confidence game — the modus operandi of charismatic swindlers that thrives in upheavals such as today's technological revolution. She unpacks the con-artist's repertoire of cajolery, illustrating it with case studies (such as art dealer Glafira Rosales's large-scale fraud) and research (including psychologist Paul Ekman's, on lying). A mesmerizing glimpse into the trickster's mind.



### A Crude Look at the Whole: The Science of Complex Systems in Business, Life, and Society

John H. Miller BASIC (2016)

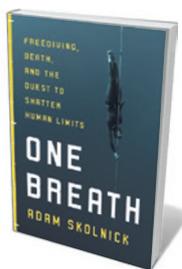
Reductionism offers few insights into complexity in nature. So argues computational analyst John Miller in this succinct, elegant study of systems thinking, the newish science examining basic principles, such as emergence, that govern physics, biology and economics. Miller reveals compelling echoes between apparently unrelated phenomena, such as “hivemind” behaviour in bee colonies and consumers, or responses to local stimuli in how a cone snail patterns its shell and how a market functions.



### Fossil Capital: The Rise of Steam Power and the Roots of Global Warming

Andreas Malm VERSO (2016)

The birth of the fossil economy, avers human ecologist Andreas Malm, arrived when steam eclipsed water power in mid-nineteenth-century Britain. Around that, Malm builds a deep, insight-packed history of how society came to be in thrall to the twin engines of combustion and capital. We see, for instance, how at the start, steam was simply more expedient, not more efficient, than hydropower; and how now, decoupling from fossil fuels is stymied when energy companies pull out of investment in renewables on the basis of low returns.



### One Breath: Freediving, Death, and the Quest to Shatter Human Limits

Adam Skolnick CROWN ARCHETYPE (2016)

Freediving (making deep dives on one breath) has been having a moment since James Nestor's *Deep* surfaced (Houghton Mifflin Harcourt, 2014; see *Nature* **510**, 339; 2014). Here, Adam Skolnick interlaces the science of the sport with the story of US freediver Nicholas Mevoli, who died in competition in 2013. Pulmonary haemorrhages contributed to his death, Skolnick shows, pointing to a need for more research on this radical self-experimentation. [Barbara Kiser](#)