

federal spending as a key component of the equation, along with consumer spending and investment. Thus, GDP was born as a transatlantic effort, led by Keynes's assistants in the UK treasury, Richard Stone and James Meade. By the end of the 1940s, it was standardized through the United Nations, and the same international process is in place today.

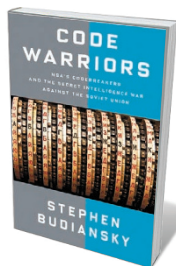
Masood covers decades of challenges to GDP conventions that make for a fascinating institutional and human story. Those seeking an alternative included UN official Maurice Strong, a key figure in the 1972 UN Conference on the Human Environment and the 1992 Earth Summit. Other critics were Italian industrialist Aurelio Peccei and British civil servant Alexander King, who together established think tank the Club

**"The act of measuring economies would ultimately determine how economies would be managed."**

of Rome and published the influential report *The Limits To Growth* (Universe, 1972). Environmentalists, and the officials whom they influenced, were swift to point out that GDP doesn't

take into account how natural assets are depleted to generate current income and consumption. Several proposals for new models have underlined the need to account for the environment; Masood (an erstwhile *Nature* journalist) praises a 1997 paper on these proposals co-authored by economist Robert Costanza (R. Costanza *et al. Nature* **387**, 253–260; 1997). Economists James Tobin and William ▶

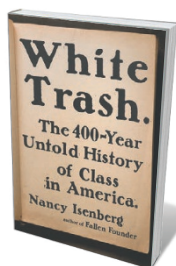
## Books in brief



### Code Warriors

Stephen Budiansky KNOFF (2016)

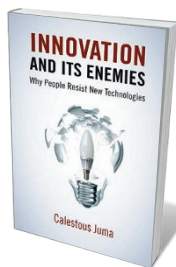
Code fiend and writer Stephen Budiansky's history of the US National Security Agency (NSA) and its intelligence battles with the Soviet Union opens in 2013, as whistle-blower Edward Snowden enacts his long-planned exposé. In a narrative laced with cryptanalysis, Budiansky then tacks back through the NSA's turbulent history, from the "almost insane logical disconnects" of the cold war stand-off to the fall of the Berlin Wall. This is a balanced, authoritative portrait of an institution in which brilliant innovation in mathematics, computing and technology has coexisted with gross invasions of societal privacy.



### White Trash: The 400-Year Untold History of Class in America

Nancy Isenberg VIKING (2016)

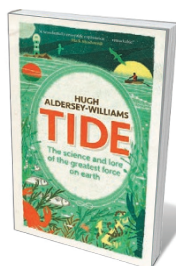
Crackers, clay-eaters and "poor white trash": the white US underclass has endured crass labelling from colonial times. That marginalization begs vast questions about US democracy, argues historian Nancy Isenberg. Her powerful social and cultural history uncovers new facets of known stories, from class conflict in the American Civil War to the sterilization of destitute whites by interwar eugenicists (V. Nourse *Nature* **530**, 418; 2016). At once brutal and enlightening, this is the chronicle of a dispossessed people caught in rural stasis, and the social and political forces that keep them there.



### Innovation and Its Enemies: Why People Resist New Technologies

Calestous Juma OXFORD UNIVERSITY PRESS (2016)

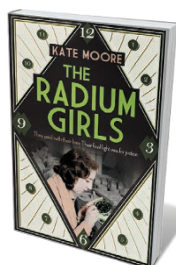
From smart grids to new commodities, innovation disrupts by default — and if it is truly transformative, can trigger controversy and policy headaches. Sustainable-technologies expert Calestous Juma explores those tensions in this original study. He follows coffee from Ethiopia through Europe as it is embraced and denounced, shaping economies, technologies and industries. He looks at the advent of electricity and transgenic crops. For the pace of innovation and institutional change to synchronize, he concludes, both nimble leadership and rigorous, respectful public education must be brought into play.



### Tide: The Science and Lore of the Greatest Force on Earth

Hugh Aldersey-Williams VIKING (2016)

More than 40% of humanity lives within 150 kilometres of a coast, yet a clear understanding of tides — that oceanic phenomenon driven by the gravitational lock of Earth and Moon — is rare. Science writer Hugh Aldersey-Williams's corrective meshes a history of the science (by way of Aristotle, Galileo and Isaac Newton, among others) with tide-related technologies and tidally sculpted events. It's an eloquent ebb and flow, from observations of a 13-hour tidal cycle in a Norfolk salt marsh to passages on the legendary maelstroms of Nova Scotia and California's body-surfing fish, the grunion.



### The Radium Girls

Kate Moore SIMON & SCHUSTER (2016)

In the 1910s, radium was marketed as a cure-all, incorporated into drinking water, cosmetics and even jockstraps. Kate Moore's harrowing chronicle traces how a number of young US women, hired to paint military timepieces with radium-laced paint, paid the price: many succumbed to radiation poisoning and died hideous deaths. Ultimately, the landmark case won by five of them inspired globally important research into radiation and its impacts — including longitudinal studies with survivors. [Barbara Kiser](#)



Amartya Sen created the UN Human Development Index with Mahbub Ul Haq.

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