

that would not have been out of place in the *Philosophical Transactions*.

For some, the flying island's tyrannical grip offers a powerful warning about the military application of science. "Laputa showed me the possibility of scientific horrors," wrote philosopher and pacifist Bertrand Russell in the 1950s. But this weapon of mass destruction is also a political allegory for Britain's imperial oppression of Ireland. In particular, it recalls the 'Wood's halfpence' affair of the early 1720s, in which Britain imposed coinage on the

"Swift not only reflected deeply on the natural philosophy of his day, but also created prescient visions of his future."

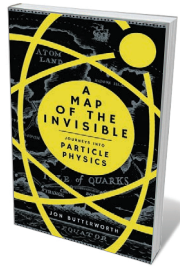
nation without the Irish parliament's consent. The affair provoked furious ripostes from Swift in seven pamphlets now known as the *Drapier's Letters*. Crucially, the master of the British mint at the time

was none other than Isaac Newton. The sneering words about scientists' political ambitions in this part of the book are probably partly aimed at him.

Such passages have led some to view Swift as 'anti-scientific'. Yet he numbered scientists of the day among his closest friends. These included his tutor at Trinity College Dublin, natural philosopher St George Ashe; physician, satirist and Royal Society member John Arbuthnot; and Dublin schoolmaster and mathematician Thomas Sheridan. Swift often remarked on their absent-mindedness — a trait shared with the Laputians, in whom it is physically manifested by each having "one of their eyes turned inward, and the other directly up to the zenith".

Swift had also witnessed the mental deterioration of local merchant Joseph Beaumont, whose obsessive attempt to calculate longitude at sea — the scientific question of the day — ended in suicide. It is perhaps no wonder that Gulliver's visit to the Academy of Projectors, the research institute in Balnibarbi's capital, Lagado, is tinged with tragi-comedy. He sees experimenters "driven equally on by hope and despair". Their hare-brained schemes include turning excrement back into food, breeding naked sheep and extracting sunbeams out ▶

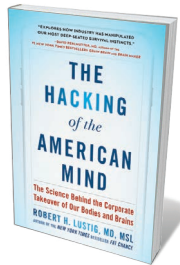
Books in brief



A Map of the Invisible: Journeys into Particle Physics

Jon Butterworth WILLIAM HEINEMANN (2017)

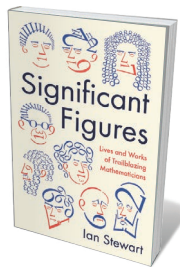
Yearning for a late holiday? Bosonia, the Isle of Leptons and farthest Antimatter beckon in this bracing voyage into particle physics, captained by experimental physicist Jon Butterworth. Ever an original writer, he maps the territory of the standard model and beyond, elucidating in turn wave-particle duality, the quantum field and the subatomic realm, all the way to ripples in space-time and the hunt for the Higgs boson (which, as a veteran of the Large Hadron Collider at Europe's physics lab CERN, he navigates expertly). Sea legs achieved, you're ready for wilder shores, such as the Dirac-Milne universe.



The Hacking of the American Mind

Robert Lustig AVERY (2017)

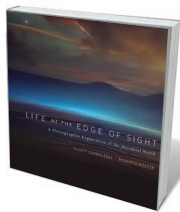
In *Fat Chance* (Hudson Street, 2012), endocrinologist Robert Lustig linked high-fructose corn syrup to obesity. Here, bolstered by up-to-date neuroscience, Lustig's argument broadens, showing how the relentless marketing of hedonic products such as processed food and digital devices encourages overconsumption. By targeting the brain's reward system, corporations "hack" minds, triggering biochemical disruption that can slide into addiction and depression. Lustig's prescriptions — from a wholefood diet to altruistic acts — are more reminder than revolution, but salutary nonetheless.



Significant Figures: Lives and Works of Trailblazing Mathematicians

Ian Stewart PROFILE (2017)

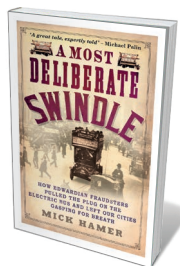
Mathematics, notes Ian Stewart, stretches back to the Babylonians' quadratic equations in an unbroken line of several millennia. His assured chronicle traces the discipline through the discoveries of 25 luminaries from around the world. In among Henri Poincaré, Ada Lovelace, Carl Friedrich Gauss and Srinivasa Ramanujan are Liu Hui, who contributed to empirical solid geometry in the third century AD; Sofia Kovalevskaya, the Russian revolutionary who advanced partial differential equations and mechanics; and the brilliant, inspirational topologist William Thurston, who died in 2012.



Life at the Edge of Sight

Scott Chimileski and Roberto Kolter BELKNAP (2017)

From the microbial mats at Grand Prismatic Spring in Wyoming's Yellowstone National Park to yeasts, bacteria and diatoms, the realm of minute life — the foundation of the planetary ecosystem — is ceaselessly compelling (A. Woolfson *Nature* **536**, 146–147; 2016). Microbiologists Scott Chimileski and Roberto Kolter explore it by meshing sumptuous images with sharp text. Their swirling narrative segues through deep time; lingers on slime moulds, tardigrades ('water bears'), rotifers and the microbes driving fermentation; and speculates enticingly on extraterrestrial microbiota.



A Most Deliberate Swindle

Mick Hamer REDDOOR (2017)

On 18 April 1906, a knot of journalists gathered in central London to goggle at a technological marvel. The clean, quiet electrobus looked set to be stiff competition for the city's lumbering, petrol-guzzling omnibuses. Yet, as Mick Hamer reveals in this accomplished exposé, it was a doomed debut. The London Electrobus Company was packed with swindlers (among them a judge) whose fraudulent activities sank the venture, ensuring the internal combustion engine's problematic dominance in transport technology. [Barbara Kiser](#)

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