

masturbation as causes for mental illness, alienists fixed on the only pattern left: patients' pedigrees. Heredity was "the one great cause ... the cause of causes", as French surgeon Ulysse Trélat proclaimed in 1856.

Thus asylum scientists unwittingly laid a path to disaster. For if mental illness boiled down to heredity, the final cure — if you insisted on imposing one — became both obvious and unspeakable.

Porter's chapters, with titles smacking of gothic Victorian novels, trace the long walk to corruption. 'Narratives of mad despair accumulate as information' gives way to 'German doctors organize data to turn the tables on degeneration, a foretaste of horror. The final chapter, 'Psychiatric geneticists create colossal databases, some with horrifying purposes, 1920–1939', sees eugenics deployed en masse. After the 1927 Supreme Court decision *Buck v. Bell*, US programmes forced sterilization on tens of thousands of people deemed mentally deficient. The Nazis built on that example in the 1930s by sterilizing some 400,000 Germans labelled hereditarily 'defective'. In 1940, they launched their wider genocidal programme by gathering more than 10,000 people from asylums all over southern Germany and gassing them at Grafeneck Castle.

The story of the era, Porter insists, is not one "of isolated failings by a few bad scientists". Every genetic insight along the way was sucked into the stream. Many geneticists and alienists had invested too heavily to stop. Others had the task brought to them. It was not by chance that the Holocaust found its first victims in asylums, which also housed the rosters, records and rationale that doomed them.

This matters for many reasons, according to Porter, the most immediate being the elemental links between this history and contemporary study of heredity. As Porter exposes strand after strand of connection, he draws sobering parallels between the motives, methods, obsessions and promises of bygone asylum directors, and those of the enormous human-genomics institutes that now enjoy unprecedented funding and power.

To Porter, these connections are roots, and today's genomics industry the tree. "Sold with a promise to find the genes for talents, diseases, and every kind of personal characteristic", he writes, genetics has returned to "the tradition of amassing, ordering, and depicting data of biological inheritance" that started more than two centuries ago, in squalor.

Some will reject this idea ferociously. But I suspect this bold, dauntingly well-documented book will prove difficult to dismiss. ■

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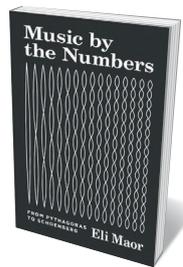
## Books in brief



### The Inner Level

Richard Wilkinson and Kate Pickett ALLEN LANE (2018)

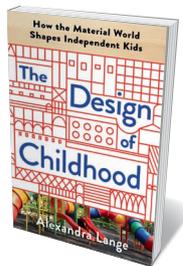
In *The Spirit Level* (2009), epidemiologists Richard Wilkinson and Kate Pickett probed the powerful correlation between a society's inequality and indices of well-being such as social mobility. Here, they narrow the focus to individuals. Drawing on wide-ranging research, they examine how inequity unsticks communities, leading to status anxiety, isolation, depression and rampant consumerism. They lay out pragmatic means of democratizing labour and dismantling class distinctions. And they put forth a salient point: that ability is generally a product, rather than a determinant, of social position.



### Music by the Numbers: from Pythagoras to Schoenberg

Eli Maor PRINCETON UNIVERSITY PRESS (2018)

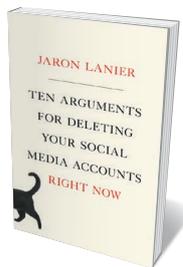
From precise notation to rhythmic patterns, music and mathematics often chime. In this intriguing study, maths historian Eli Maor traces those echoes, along with the trajectories of the "scientists, inventors, composers, and occasional eccentrics" behind them. We encounter the musical 'firsts' of classical philosopher Pythagoras; composer Arnold Schoenberg, whose "relativistic" music might have been influenced by the theories of Albert Einstein; the German musicians who in 2001 launched a 639-year performance of John Cage's composition 'As Slow as Possible'; and scores more.



### The Design of Childhood

Alexandra Lange BLOOMSBURY (2018)

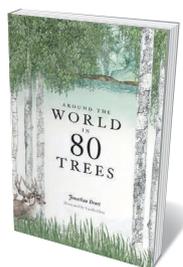
Millions of children are in digital overdrive, risking limited interaction with the material world (see B. Kiser *et al. Nature* **523**, 286–289; 2015). Alexandra Lange reminds us why that is an issue. Her captivating design history begins with construction toys such as Lego, Tubation and Zoob, and moves through home, school and playground as they morph to accommodate children's needs and inspire their creativity ever more fluidly and beautifully. She shows, too, how in mixed urban spaces, child-centred elements such as play areas and mental-mapping landmarks are often elbowed out.



### Ten Arguments for Deleting Your Social Media Accounts Right Now

Jaron Lanier HENRY HOLT (2018)

Fiercely unequivocal and utterly timely, Jaron Lanier's manifesto urges those still in thrall to social media to bin their accounts — now. The virtual-reality pioneer (see A. Faisal *Nature* **551**, 298–299; 2017) lays out ten rationales, starting baldly with "You are losing your free will". His argument, as an insider's insider, is that these "social modification empires" undermine truth, destroy empathy, promote unhappiness and make a joke of politics through constant surveillance and manipulation. As he puts it, it's better to be a cat, autonomous and in charge, than a subservient dog — or lab rat.



### Around the World in 80 Trees

Jonathan Drori and Lucille Clerc LAWRENCE KING (2018)

This tome, gorgeously illustrated by Lucille Clerc, pays homage to the tree as a scientific subject, a cultural mainstay and an exemplar of biological majesty. Educator Jonathan Drori has isolated 80 species for his global survey, each wreathed in intriguing tales. Blossoms of the long-lived lime (*Tilia x europaea*), for instance, exude the bee-befuddling sugar mannose, and seedpods of the Costa Rican sandbox (*Hura crepitans*) explode with the sound of a pistol shot, ejecting their load at up to 240 kilometres an hour. From upas to coco de mer, an arboreal odyssey. [Barbara Kiser](#)