combinatorial arrays. A universe of regulatory and modulatory elements hides in the erstwhile junk. Genes cooperate, evolving together as units to produce traits. Many researchers continue to find selfish DNA a productive idea, but taking the longer view, the selfish gene per se is looking increasingly like a twentieth-century construct.

Dawkins's synopsis shows that he has not adapted to this view. He nods at cooperation among genes, but assimilates it as a kind of selfishness. The microbiome and the 3D genome go unnoticed. Epigenetics is an "interesting, if rather rare, phenomenon" enjoying its "fifteen minutes of pop science voguery", which it has been doing since at least 2009, when Dawkins made the same claim in *The Greatest Show on Earth* (Transworld). Dawkins adheres to a deterministic language of "genes for" traits. As I and other historians have shown, such hereditarianism plays into the hands of the self-styled race realists (N. Comfort *Nature* 513, 306–307; 2014).

His writing can still sparkle. He excels at capturing the scenes behind a scene, deftly explaining a scientific principle, capping a story with an amusing anecdote. His tale of palaeoanthropologist Richard Leakey hauling his legs (amputated after a plane crash) to Kenya in his hand luggage for burial is funny and touching. Dawkins also makes an important case for the "poetic" side of science, arguing that the imperative to justify research in terms of potential medical or financial benefits bleeds the beauty out of it. Amen.

At such moments, one feels transported to a tweedy evening at Oxford, pouring the sherry as a charming senior faculty member holds court. But too often, the professor rambles. He quotes friends' and colleagues' tributes from dust-jackets and afterwords. He mentions the fish genus Dawkinsia. He repeatedly slams his late rival, Gould ("whose genius for getting things wrong matched the eloquence with which he did so"). His digressions often come off as twee and self-indulgent. Mentioning the limping family dog, Bunch, in an apt example of an acquired characteristic that cannot be inherited, he is reminded of an unfinished poem his mother wrote after Bunch died, which he prints. "If you can't be sentimental in an autobiography, when can you?" he asks.

For a time, Dawkins was a rebellious scientific rock star. Now, his critique of religion seems cranky, and his immovably genocentric universe is parochial. *Brief Candle* is about as edgy as Sir Mick and the Rolling Stones cranking out the 3,578th rendition of 'Brown Sugar' — a treat for fans, but reinscribing boundaries rather than crossing them.

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# **Books** in brief



#### Brain Storms: The Race to Unlock the Mysteries of Parkinson's

Jon Palfreman Farrar, Straus & Giroux (2015)
In 2011, journalist Jon Palfreman was diagnosed with Parkinson's disease. The progressive neurodegenerative condition, characterized by tremors and muscular rigidity, affects 7 million people worldwide. In this lucid overview, Palfreman interlaces the history of research into the disease — linked, like Alzheimer's, to a rogue protein — with therapeutic approaches from deep brain stimulation to the drug L-DOPA. Extraordinary case studies abound, such as that of a man who can ride a bicycle but not walk, and dancer Pamela Quinn, who



### Places of the Heart: The Psychogeography of Everyday Life

has devised workarounds that 'trick' the body into movement.

Colin Ellard Bellevue Literary (2015)

Why would a street evoke unease, or a shopping centre the desire to spend? Psychologist Colin Ellard explores the intersection of neuroscience and urban design for answers. Meshing recent findings with thoughtful appraisals of their implications, Ellard looks at spaces and the awe, lust, boredom, affection or anxiety that they trigger. He is richly insightful, particularly on digital encroachments into the experience of place: can augmented-reality gear ever vie with the hair-prickling thrill of being there? Ellard argues that virtual immersion could take a "metaphysical toll"; it is hard not to agree.



#### **Elephants and Kings: An Environmental History**

Thomas R. Trautmann UNIVERSITY OF CHICAGO PRESS (2015)
The intelligence, majestic presence and physical prowess of the Asian elephant was not lost on India's monarchs. As historian Thomas Trautmann shows in this scholarly environmental history, the beast's usefulness in warfare and its prodigious dietary needs ensured royal protection for swathes of forest in ancient India, where the wild animals were captured for specialized training. That the country still has 30,000 elephants is a testament to their enduring place in the collective imagination; but as Trautmann argues, India's surviving patchwork of 31 elephant reserves may not sustain them.



## Why You Can Build it Like That: Modern Architecture Explained

John Zukowsky Thames & Hudson (2015)

From the squat circularity of New York City's Guggenheim Museum to Abu Dhabi's swooning, tornado-shaped Capital Gate skyscraper, extreme architecture is here to stay. This illustrated roll call by architectural historian John Zukowsky zips through 100 "iconic and iconoclastic" structures of the past 50 years — shapely, hideous or energizingly weird. Norman Foster's Spaceport America in New Mexico, for instance, resembles a giant horseshoe crab in thinshelled concrete, whereas Myron Goldsmith's McMath-Pierce Solar Telescope in Arizona is a minimalist ode to the right angle.



## Nature and Wealth: Overcoming Environmental Scarcity and Inequality

Edward B. Barbier PALGRAVE MACMILLAN (2015)

In this cogent analysis, economist Edward Barbier reveals an economic landscape of degraded environments and social inequality. The culprit, he argues, is a structural imbalance in which natural resources are overexploited and human capital is undersupplied. Examining current challenges such as ecological scarcity, he concludes that a strategy to rebalance natural and human capital is the way forward, however difficult. Barbara Kiser