



MEDICAL HISTORY

A surgeon for all seasons

Tilli Tansey extols a biography of the radical who gave his name to Parkinson's disease.

Parkinson's disease is the second most common neurodegenerative condition in the world, with 6 million people affected. But who was Parkinson? In a splendid new book, historian of geology Cherry Lewis introduces us to a fascinating, multifaceted Enlightenment figure: the intellectually curious, politically active and socially concerned London surgeon-apothecary James Parkinson (1755–1824).

The Enlightened Mr. Parkinson reveals a man involved in endeavours as varied as the founding of the Geological Society and the alleged Popgun Plot to assassinate George III. Perhaps his most extraordinary accomplishment was the prescient 1817 monograph *An Essay on the Shaking Palsy* — the first extensive description of the disorder that would be named after him. As Lewis reveals, the path to this historic discovery was long and winding.

Parkinson lived in the same house in Hoxton, east London, for most of his life. He practised medicine there with his father, and then his son, in a business that would span at least four generations. In a seven-year apprenticeship, he learned to make medicines, diagnose ailments and purge, bleed and blister his patients, mostly lower-middle-class but with a smattering of the rich. He then spent six months as a surgical dresser at what is now the Royal London Hospital.

During Parkinson's lifetime, Lewis shows, Hoxton's open fields disappeared beneath



The Enlightened Mr. Parkinson: The Pioneering Life of a Forgotten English Surgeon
CHERRY LEWIS
Icon: 2017.

tenements and factories as the Industrial Revolution gathered pace. London's water and air became grossly contaminated, and overcrowding provided ideal conditions for diseases such as tuberculosis. Open fires, combustible clothing and dangerous manual work meant that fractures, lacerations, burns and hernias were common. The conditions Parkinson saw as he travelled on his rounds, often stricken with gout, might well have stirred his social and political awakening.

He lived in turbulent times, marked by the Seven Years War, the War of American Independence and the Napoleonic Wars. High taxes to pay for these military adventures coincided with civilian unrest, influenced by the French Revolution of 1789. Parkinson became increasingly radical, advocating votes for all (at a time when approximately 2% of Britons were enfranchised), parliamentary reform, education of the poor and unfettered discussion of politics and religion. In 1792, he joined the London Corresponding Society, which campaigned for parliamentary reform and promoted representation of all men. Parkinson became adroit at the social media of his age — producing periodical articles, broadsheets and pamphlets, often under the pseudonym Old Hubert.

In 1794, the radicalized Parkinson was caught up in the Popgun Plot. The conspiracy seems to have been 'fake news', concocted by the authorities to justify restrictive legislation. Summoned to Whitehall to be examined, with Prime Minister William Pitt (the Younger) leading the questioning, Parkinson admitted to writing inflammatory — even seditious — pamphlets, but was never arrested. How he escaped is not clear.

Next, Parkinson turned his talents to books on geology and general medical advice. As a young apothecary, he had attended anatomical lectures by the celebrated surgeon John Hunter, who, like many medics, collected fossils and encouraged their study. Parkinson started his own collection. In 1807, he was invited to join like-minded individuals such as chemist Humphrey Davy and physician William Babington in founding the Geological Society. Struggling to reconcile biblical authority with the fossil record, which suggested the existence of animal life hundreds of thousands of years before humanity, he embraced the theory of Swiss naturalist

NEW IN
PAPERBACK

Highlights of this
season's releases.



Drones and the Future of Armed Conflict: Ethical, Legal, and Strategic Implications

Eds David Cortright, Rachel Fairhurst & Kristen Wall (Univ. Chicago Press, 2017)

This cogent and compelling edited volume on the burgeoning use of drones in warfare takes a hard look at issues such as accountability, even as it praises the technology. Contributors highlight the questionable efficacy and ethics surrounding the deployment of drones, particularly in Pakistan, and stress the need for international guidelines on their use.

Jean-André de Luc that geological history was a sequence of seven vast periods, each corresponding to a day of creation.

In his medical work, Parkinson continued to demonstrate a concern for social justice. His 1799 book *Medical Admonitions* was intended to help poor families to recognize disease and understand when to pay for medical advice. In the following years, cheaper, condensed versions found a ready market with an increasingly literate working class. Parkinson became involved with local issues of late-eighteenth-century medicine: child labour, asylums and vaccination. His investigation of the horrific conditions endured by destitute children working in factories brought about local improvements, 30 years before any national legislation.

He was also one of the first people in London to offer smallpox vaccinations (he gave a dissecting microscope to his friend Edward Jenner, who pioneered the procedure). Less successfully, he served as a medical attendant to a private asylum. At a trial in 1810, he was involved in a notorious false commitment of a sane woman, for which he was widely criticized. That experience prompted a book the following year — *Mad-houses: Observations on the Act for Regulating Mad-houses*. Many of its suggestions for the humane treatment and legal protection of the mentally ill were finally incorporated in the 1845 Lunacy Act.

Given Parkinson's broad interests, passions and activities, it is perhaps surprising that his name lives on because of one essay — politely received at the time but not widely known. His description of the signs and symptoms of the disorder are still exemplary, although he had little to suggest in the way of causation or therapy. More than 50 years later, the great French neurologist Jean-Martin Charcot coined the expression *maladie de Parkinson*, and the essay began to gain a wider audience. I hope Lewis's book will do a similar job for the man himself. ■

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ENERGY

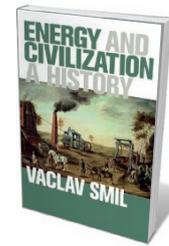
Muscle, steam and combustion

Roger Fouquet applauds Vaclav Smil's vast survey of the technologies powering human progress.

Vaclav Smil's *Energy and Civilization* is a monumental history of how humanity has harnessed muscle, steam and combustion to build palaces and skyscrapers, light the night and land on the Moon. Want to learn about the number of labourers needed to build Egypt's pyramids of Giza, or US inventor Thomas Edison's battles with Nikola Tesla and George Westinghouse to electrify homes and cities, or the upscaling of power stations and blast furnaces in the twentieth century? Look no further.

Admired by Microsoft founder and philanthropist Bill Gates, Smil is a prolific writer on energy and environmental issues, with a penchant for history. This is especially valuable today, when renewables such as wind and solar power are set to disrupt the fossil-fuel-based energy system. Our use of energy has been transformed since the late nineteenth century with the extraction of oil and natural gas, the diffusion of technologies driven by electricity and the expansion of power-distribution networks. History offers guidance on paradigm shifts, and how we adapt.

The book is a significantly revised, updated and more detailed version of Smil's *Energy in World History* (Westview, 1994). It takes us back to prehistory to quantify the energy expended by foragers, hunters and agrarian societies. Smil uses evidence from the !Kung people in Botswana, the Maasai in Kenya and Alaskan whalers, and discusses 500,000-year-old spear tips found in South Africa and the



Energy and Civilization: A History
VACLAV SMIL
MIT Press: 2017.

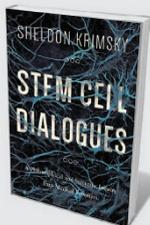
role of hunting in the extinction of the mammoths.

From the fifth millennium BC to the middle of the second millennium AD, civilizations such as those of ancient Egypt, Rome and China through to medieval and Renaissance Europe collectively invented technologies reliant on muscle power, wind and water, along with increasingly refined wheels and pulleys. Smil explains that the shift from human to animal power and the use of irrigation, fertilizer and crop rotation were key to increasing agricultural yields and ultimately population size. He reveals how settlements in warm climates, such as Mesoamerica or India, depended on

an area of agricultural land 60 times greater than that of the average town at the time. It was 100 times greater in colder climates such as northern Europe, where forests providing fuel for heat were also needed. The ability

to mine and use energy-dense fossil fuels altered the 'energy footprint' of towns and cities and allowed urban centres to become denser. Smil dwells on genius scientists and heroic engineers of the first and second industrial revolutions between 1760 and 1913, and the high-tech takeover ▶

SOLVING ONE ENVIRONMENTAL PROBLEM OFTEN LEADS TO ANOTHER.



Stem Cell Dialogues

Sheldon Krimsky (Columbia Univ. Press, 2017)
Sociologist Sheldon Krimsky explores the history of stem-cell research through an unusual lens: Socratic dialogues. From the ethics of cloning to the politics of using embryonic stem cells, the scenarios examine the achievements and controversies of regenerative medicine.



The Genius of Birds

Jennifer Ackerman (Penguin, 2017)
In a study scattered through with personal observations, science writer Jennifer Ackerman extols the startling intelligence of birds. New Caledonian crows can fashion tools, magpies recognize their own reflections and western scrub jays may hold "funerals".