

With each version, the basic plot remains the same, but the tone grows darker. Frankenstein becomes more passionate and ambitious, his science becomes more sinister and misdirected (“I felt as if my soul were grappling with a palpable enemy”) and his Creature becomes more alienated and agonized. The 1831 introduction also contains an inventive, retrospective account of the storytelling competition at the villa. Mary now calls the book her “hideous progeny”, and claims that the whole idea came to her instantly, like an emotional bolt of summer lightning on waking from a terrible nightmare. “I saw — with shut eyes but acute mental vision — I saw the pale student of unhallowed arts kneeling beside the thing he had put together. I saw the hideous phantasm of a man stretched out, and then, on the working of some powerful engine, show

“The early chapters evoke the mysteries of experiment, naive excitement about electrical kites and the fascination of air pumps.”

signs of life, and stir with an uneasy, half vital motion.”

The book may, however, have had a more intellectual genesis. The best contemporary account of the ghost-story competition is

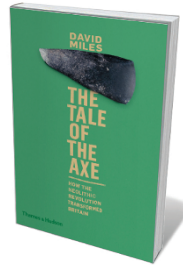
Polidori’s. A medical graduate of the University of Edinburgh, he had written his doctoral thesis on sleepwalking. Before the trip, he was commissioned by the publisher John Murray to keep a secret journal of Byron’s adventures, and in this he recorded the villa party’s speculative conversations and reading of German gothic “horror tales”. Above all, he noted their wide-ranging discussions of fundamental scientific principles, and whether the human body “was thought to be merely an instrument”. As Polidori put it, their brains “whizzed”.

SCIENCE FACT

Polidori would have known about recent experiments in electrical resurrection techniques by Italian physicist Giovanni Aldini (nephew of bio-electrician Luigi Galvani), and the new anatomical theories of German physiologists such as Johann Friedrich Blumenbach. Also making waves were the fierce ‘vitalist’ debates at England’s Royal College of Surgeons between John Abernethy and William Lawrence, about the possible existence of an electrical ‘life-force’ and the unique nature of human consciousness. These controversial ideas, alive in the great universities and research centres of Europe, fed into *Frankenstein*, and especially into the moral issues that it raised about the perils of scientific interference with nature.

Thus began a writing process involving careful research over many months. ▶

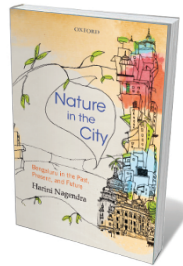
Books in brief



The Tale of the Axe: How the Neolithic Revolution Transformed Britain

David Miles THAMES & HUDSON (2016)

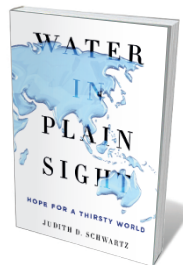
This illuminating treatise on the Neolithic era in Britain treats the polished-stone axe that gives the age its name as a portal into prehistory — a revelation of material, manufacture and function. Drawing on research riches from Turkey’s Çatalhöyük site to Britain’s Stonehenge, archaeologist David Miles contextualizes his core chronicle of how tools, farming and metallurgy arrived in the British Isles. As layered as the strata of an archaeological dig, this is a moving portrait of a people at a cultural and technological tipping point.



Nature in the City: Bengaluru in the Past, Present, and Future

Harini Nagendra OXFORD UNIVERSITY PRESS INDIA (2016)

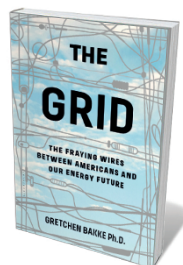
With 10 million people and pell-mell development, Bengaluru (India’s Silicon Valley, also known as Bangalore) is an old city in thoroughly modern flux. Urban ecologist Harini Nagendra’s study looks at its deep ecological history, colonial role as India’s garden city and current struggle with pollution, social exclusion and residents’ increasing detachment from nature. Marshalling research from satellite imaging to interviews with slum dwellers, she concludes that “cities need to be ecologically as well as socially smart”, and sees solutions in cross-city engagement of governance and civil society.



Water in Plain Sight: Hope for a Thirsty World

Judith D. Schwartz ST MARTIN’S (2016)

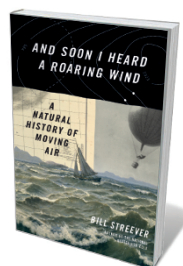
Water security demands holistic, ecosystem-oriented solutions, argues Judith Schwartz in this stellar global tour of innovative soil and biodiversity restoration and water harvesting. In Zimbabwe, ecologist Allan Savory reveals how intensified grazing by wild ruminants is enabling 95% of rainfall to soak into the soil, and rivers to recover. In Brazil, researcher Antonio Nobre exposes how deforestation damages the Amazon’s unparalleled “forest-rain dynamics” and promotes drought. And in the Texas desert, permaculturalist Markus Ottmers unveils a built “ecosystem fuelled by variants of dew”. Inspiring.



The Grid: The Fraying Wires Between Americans and Our Energy Future

Gretchen Bakke BLOOMSBURY (2016)

The US electricity grid, cultural anthropologist Gretchen Bakke reminds us in this cogent study, dominates US energy but is extremely vulnerable — and not just to gnawing squirrels. Nationalized and predicated on power plants, it’s a poor fit with the variable, localized output of renewables. Bakke traces its inception by pioneers such as business magnate Samuel Insull through its technological, political and industrial evolution. Working towards a “self-healing, processor-dense ‘intelligent’ grid”, she argues, is the key to energy resilience.



And Soon I Heard a Roaring Wind: A Natural History of Moving Air

Bill Streever LITTLE, BROWN (2016)

As his 2009 *Cold* and 2013 *Heat* (both Little, Brown) attest, biologist and nature writer Bill Streever is drawn to extremes. He now tackles strong winds, from cyclones to Santa Anas, for a scientific history of storms, meteorology and wind power, studded with pioneers such as seventeenth-century astronomer and trade-wind mapper Edmond Halley. A chronicle of Streever’s voyage under sail from Texas to Guatemala is threaded through, giving a breezy immediacy to the story of how we learned to decode “moving air”. [Barbara Kiser](#)