Speculative fiction from 1904 to 1933 is often overshadowed by later 'golden age' work.

SCIENCE FICTION

The radium age

Joshua Glenn explores the dark, fascinating, largely forgotten science fiction of the early twentieth century.

We think we know science fiction. There were the 'scientific romance' years that stretched from around the mid-1860s to 1903, after which H. G. Wells lost his touch. And there was the 'golden age', from 1934 to the mid-1960s. But between those periods — and overshadowed by them — was a fascinating era that gave us such enduring memes as the berserk robot, the tyrannical superman and the sinister telepath.

I call that period, from 1904 to 1933, sci-fi's 'radium age'. It emerged when the speed of change in science and technology was inducing vertigo on both sides of the Atlantic. More cynical than its Victorian precursor yet less hard-boiled than the generation that followed, this is sci-fi offering a dizzying, visionary blend of acerbic social commentary and shock tactics. It yields telling insights into its context, the early twentieth century. Plus, it is fun to read.

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The scientific romances that preceded this era were strong on the fantastical but otherwise very different. The utopian fantasies of Edward Bulwer-Lytton (*The Coming Race*, 1871), for instance, and the fantastic voyages by writers such as Jules Verne (*Journey to the Centre of the Earth*, 1864) and Edgar Allan Poe (*The Unparalleled Adventure of One Hans Pfaall*, 1835) were largely sentimental literature. They were by and for people who were inspired by US inventor Thomas Edison and believed that modern science and technology would improve the human condition and usher in the triumph of millennia-old Christian values.

Radium-age writers were not out to beguile. They depict a human condition subverted or perverted by science and technology, not improved or redeemed. Aldous Huxley's 1932 *Brave New World*, with its devastating satire on corporate tyranny, behavioural conditioning and the advancement of biotechnology, is far from unique. Radium-age sci-fi tends towards the prophetic and uncanny, reflecting an era that saw the rise of nuclear physics and the revelation that the familiar — matter itself — is strange, even alien. The 1896 discovery of radioactivity, which led to the early twentieth-century insight that the atom is, at least in part, a state of energy, constantly in movement, is the perfect metaphor for an era in which life itself seemed out of control.

As demonstrated by Philipp Blom in *The Vertigo Years: Europe 1900–1914* (Basic Books, 2008), the actual experience of time and space was altered in this period by the proliferation of a range of stunning technological developments, from the telegraph and the telephone to aeroplanes and cinematic film. Thinking and perception were radically reoriented by developments in science, philosophy and the arts. These included Einstein's special theory of relativity; the work of phenomenological philosophers such as Edmund Husserl, who sought to objectively describe the subjective workings of consciousness; and Cubism, the artistic movement spearheaded by Pablo Picasso and Georges Braque that explored distortion and deconstruction. Social and cultural forms and norms, such as women's subordination to men — once regarded as natural, permanent 'elements' — were disintegrating.

During this astonishing period, sci-fi writers were obsessed with the future. The scientific romantics had conjured up simplistic utopias that remained firmly grounded in contemporary realities. By contrast, the radium-age novels, stories, movies and plays (see 'Key radium-age works') often lift off into previously unexplored realms.

Instead of offering progressive solutions

NOVEL VISIONS

Key radium-age works

Karel Čapek *R.U.R.* (1920)
Arthur Conan Doyle *The Lost World* (1912)
Hugo Gernsback *Ralph 124C 41+* (1911–12)
H. Rider Haggard *When the World Shook* (1919)
William Hope Hodgson *The Night Land* (1912)
Aldous Huxley *Brave New World* (1932)
Rudyard Kipling *With the Night Mail* (1905)
Jack London *The Scarlet Plague* (1912)
Charlotte Perkins Gilman *Herland* (1915)
Edward Shanks *The People of the Ruins* (1920)
George Bernard Shaw *Back to Methuselah* (1921)
Olaf Stapledon *Last and First Men* (1930)
Thea von Harbou *Metropolis* (1926)
Philip Wylie *Gladiator* (1930)
Yevgeny Zamyatin *WE* (1921)

to social unrest, writers satirized and exaggerated its causes and effects. The out-of-control robot can be read as a criticism of the efficiency-oriented theories of Frederick Winslow Taylor and the practices of industrialist Henry Ford. So *R.U.R.* (Czechoslovakian writer Karel Čapek's 1920 play, which introduced the term 'robot' to the English language) portrays mass production as alienating at best. In Jack London's post-apocalyptic *The Scarlet Plague* (1912), a race of barbarians descended from San Francisco's brutalized underclass roam the city's devastated remains after the fatal pandemic of 2013. And Charlotte Perkins Gilman's feminist novel *Herland* (1915) imagines an ideal community in which women aren't merely emancipated, but have done away with men altogether.

Politics are inevitably part of the mix — this is an era that encompassed the First World War, the Russian revolutions, and the rise of radical left- and right-wing movements. Many sci-fi authors, such as Čapek and Yevgeny Zamyatin, were leftists and liberals. But more conservative authors shared their utopianism and cynicism. For instance, Arthur Conan Doyle, inventor of Sherlock Holmes, wrote a series of ripping yarns starring a Professor Challenger, who discovers surviving dinosaurs, travels to Earth's "sensory cortex" and witnesses the end of life on the planet — all the while making the case for reconciling imagination and intuition with a sceptical scientific method.

Similarly, H. Rider Haggard, who had made his name with *King Solomon's Mines* (1885) and the Quartermain novels of the 1880s, created a disputatious trio in 1919's *When the World Shook* — an idealistic Anglican minister, a sardonic doctor and an adventurer whose world view hovers somewhere in between. Meanwhile, both the leftist London (in *The Scarlet Plague*) and the conservative English poet Edward Shanks (in *The People of the Ruins*) agree that the destruction of modern western society wouldn't be an entirely bad thing.

Fans of Philip K. Dick or Ursula K. Le Guin — writers belonging to what literary theorist Fredric Jameson has termed the "anti-anti-utopian" trend of the late 1960s and early 1970s — will find provocative antecedents here. Reading the dangerous visions of radium-age sci-fi, published in times as volatile as our own, destabilizes everything we take for granted. These books remind us that we need to regard our twenty-first-century forms and norms without sentimentality. ■

Joshua Glenn *edits the blog HiLobrow, and co-founded HiLoBooks to reissue 'radium age' science fiction. HiLoBooks' edition of Arthur Conan Doyle's* The Poison Belt *is out now; H. Rider Haggard's* When the World Shook *is published in October.*
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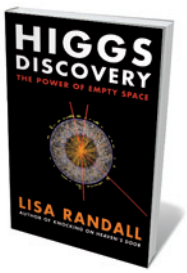
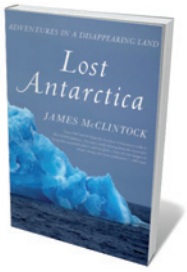
Books in brief

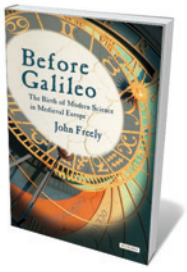


Higgs Discovery: The Power of Empty Space
Lisa Randall BODLEY HEAD *64 pp. £4.99 (2012)*
The Higgs bombshell on 4 July rocked the world of physics. In this slim volume, theoretical physicist Lisa Randall analyses the significance and implications of that momentous finding at Switzerland's Large Hadron Collider. She offers clear accounts of the Higgs mechanism and the role and modes of the Higgs's decay; follows the seven-month lead-up to the discovery; and speculates about what it all might mean for other areas of exploration, such as supersymmetry. A lucid, deft and engaging summation of dogged determination and "heroic engineering".

The Human Quest: Prospering Within Planetary Boundaries
Johan Rockström and Mattias Klum STOCKHOLM TEXT *314 pp. $9.99 (2012)*
In 2009, Johan Rockström of the Stockholm Resilience Centre and his colleagues set out in *Nature* nine 'planetary boundaries' — numerical limits for processes that affect Earth's capacity to support human life, such as freshwater use and climate change. This lavishly illustrated e-book — with a foreword by former US president Bill Clinton and video clips from photographer Mattias Klum — extends this idea, laying out pressures and tipping points. Paramount among the changes needed, Rockström says, is a big shift in behaviour.



Lost Antarctica: Adventures in a Disappearing Land
James McClintock PALGRAVE MACMILLAN *256 pp. £16.99 (2012)*
The sight of 50,000 king penguins on the Crozet Island Archipelago in the early 1980s sparked marine biologist James McClintock's fascination with Antarctic fauna. Now a veteran of the extreme south, McClintock shares the otherworldly wonders unveiled by decades of research. The book is packed with joys, from soft-coral 'trees' that replant themselves to the snoozing Weddell seal, stinking of putrid fish, that the author encountered in a dive hut. Running like a chill current through all is the climate-driven decimation of the ice on which these ecosystems depend.



Before Galileo: The Birth of Modern Science in Medieval Europe
John Freely OVERLOOK PRESS *352 pp. £18.51 (2012)*
A thousand years before Galileo, the transmission of knowledge that survived the burning of the ancient Library of Alexandria began. Physicist John Freely traces this "tenuous Ariadne's thread" of classical learning that unspooled from Egypt through Byzantium and the Islamic world, finally emerging as Latin texts. Focusing on the trailblazers through this extraordinary millennium — from Bede, Averroës and al-Khwarizmi to Adelard of Bath, Robert Grosseteste and Roger Bacon — Freely ends with a coda on Copernicus, Kepler, Galileo himself and Newton. Shoulders of giants indeed.

The Scientists: An Epic of Discovery
edited by Andrew Robinson THAMES & HUDSON *304 pp. £24.95 (2012)*
The human face of scientific breakthroughs from the sixteenth to the twentieth centuries is spotlit in this sumptuously illustrated volume. Science writer Andrew Robinson, editing contributions from a stellar team of authors, groups 43 greats into six broad areas: Universe, Earth, Molecules and Matter, Inside the Atom, Life, and Body and Mind. From Alan Turing and Marie Curie to William Harvey and Chandrasekhar Venkata Raman, this is a sampler of the driven, complex, fascinating characters who fomented scientific revolutions.