an Emeritus Professor of the History of Science at Queen's University Belfast should surely be setting a scholarly example.

The book's mixture of strong overview and shaky detail applies equally to its coverage of H. G. Wells. Bowler's main point is spot on, that Wells personified the struggle to formulate the future because he persuasively championed both optimistic and pessimistic views across a range of genres. Bowler is also familiar with an impressively wide range of Wells's work. Nonetheless, he thinks *A Modern Utopia* appeared in 1917, not 1905, and cites *When the Sleeper Wakes* and the revised *The Sleeper Awakes* interchangeably. Eventually, he tries to clarify matters by calling the former the 'original 1899 version', but immediately muddies them again by mislabelling it as *The Sleeper Awakes* and referring to the second version as 'the 1910 reprint'. He correctly says that Wells left university without a degree but does not add that he gained it just a few years later. He also makes a contentious, unsupported claim that Wells flirted with the totalitarianism of both the left (which is arguable) and the right (which is puzzling).

Overall, Bowler's study is an impressively wide-ranging piece of work – with, I should add, many excellent illustrations in black-and-white and colour – which succeeds both as a stimulating overview and as a work of reference. Its scale, however, means that it lacks the narrative flow to be a good read and leaves many points frustratingly underdeveloped. What of Bowler's conclusion? He confesses that he has been driven towards pessimism by the last fifty years of history – just like the rest of us. But what an exciting dream that future was, and how thought-provoking to revisit it!

WILL TATTERSDILL, SCIENCE, FICTION, AND THE FIN-DE-SIÈCLE PERIODICAL PRESS (CAMBRIDGE: CAMBRIDGE UNIVERSITY PRESS, 2016) ISBN 978-1-107-14465-1 (HB) £64.99 [PATRICK PARRINDER]

As a young writer in the *fin-de-siècle*, H. G. Wells depended on the periodical press for his livelihood. One of the most memorable 'picshuas' in his *Experiment in Autobiography* (1934) is a comic strip showing the aspiring young author taking his very long 'tale' (a deft visual pun) out of the inkpot, seeing it chopped up by the editor of *Pearson's Magazine* on the 'serial chopping block', and finally swaggering back home with a money bag containing £200. Such, we are to believe, was the genesis of *The War of the Worlds* (1898). But, while there has been a good deal of scholarship on late Victorian periodicals in recent years, criticism of Wells has rarely offered more than a cursory glance at the magazines in which all of his major

scientific romances, apart from *The Island of Doctor Moreau* (1896), first appeared. The critical literature on *The Time Machine* (1895), for example, is full of references to the textual changes that Wells made as his novella progressed through its serial versions, but only a single article by Carlo Pagetti ('Change in the City', originally given as a paper at the Wells Society's 1995 *Time Machine* conference) stands out for its juxtaposition of Wells's vision of a future London with the lavishly-illustrated contemporary reports of metropolitan transition and of London's 'new visual dimensions' in the *Strand Magazine* and elsewhere. In this perspective – just as in Wells's own early writings – the boundaries between apocalyptic fiction and supposedly fact-based journalism begin to disappear.

Will Tattersdill seems unaware of Pagetti's article, but the purpose of his new book is to explore the remarkable diversity of materials and the mixing of genres within the popular illustrated magazines of, roughly, 1891-1905. This was the period of the 'New Journalism', a term coined by Matthew Arnold to sum up the rapid tempo and sensationalist approach of the newspapers and magazines aimed at the rapidly growing and largely urban late nineteenth-century reading public. As Tattersdill shows in his introductory chapter, the new media used the latest printing technology to bring down unit costs and to increase greatly the quantity and quality of illustrations, a number of which are reproduced here. The visual impact of the turn-of-the-century periodical press was as important, or nearly as important, as the words on the page. (Tattersdill adds the caveat, however, that this impact may be greatly diminished in the digitised versions of periodicals provided by modern research libraries, where the papers' advertising sections, for example, are often ruthlessly excised.)

As Sam Moskowitz highlighted in his 1968 anthology *Science Fiction* by *Gaslight*, it was in the polyphonic, eclectic setting of the turn-of-thecentury magazines that science fiction first emerged as a recognisable commercial literary form. What distinguishes Tattersdill's book is his juxtaposition of science fiction with other forms of science writing in the magazines, grouping his various examples under four thematic headings: communication with Mars, futurology, the discovery of X-rays, and polar exploration. Under each heading he looks, among much else, at a specific Wells text: *The War of the Worlds* under Mars, *The Time Machine* under futurology, and (much less obviously) *The Invisible Man* (1897) under Xrays and *The First Men in the Moon* (1901) under polar exploration. The juxtapositions are always illuminating, even though not all Tattersdill's generalisations about Wells will stand up to close scrutiny. For example, in his discussion of *The Time Machine* as it appeared in the *New Review*, he never mentions the version that had been serialised just a few months before in the *National Observer*. This makes it all the more odd that, in an endnote (197), Tattersdill suggests that the 'contemporary audience's' response to the *New Review* serial might conceivably have been affected by the prior publication of 'The Chronic Argonauts' (1888) in the *Science Schools Journal* six years before – as if there was some significant overlap between the (tiny) readership of the college magazine founded by Wells and that of W. E. Henley's *New Review*!

This book is full of fascinating material, though it also suffers from the limitations of being an academic monograph: the high price, the unfortunate misprints (Wells's reference in The Time Machine to the Earth's 'precessional cycle' becomes here 'processional cycle'), the constant citation of earlier scholars, and the occasional sense of getting lost in a fog of abstractions. (Tattersdill draws some of his key analytical terms from the cultural theory of Bruno Latour, but he makes little attempt to introduce Latour's work to the uninitiated reader.) Sometimes, it is true, we get a sense of the real author half-hidden by the academic format, above all in his opening declaration that 'reading the general magazines of the fin de siècle is enormously good fun' (1). Where I, for one, would have liked a little more detail is in the question of readership already alluded to. Tattersdill speaks in passing of the magazines' 'London audiences' (71) and 'metropolitan consumers' (182), but it would be good to know just how wide their distribution was, and to what extent it was confined to London and (presumably) the large provincial cities. Did the title of the Strand Magazine, for example, imply its readers' familiarity with or pretensions to metropolitan chic, or was it just a synonym for what a later generation would call Fleet Street? Could a writer for, say, Pearson's Magazine be expected to reach a truly national, let alone international audience? Tattersdill has much to say about the advantages of the magazine format, but he rarely stops to consider its ephemerality. Yet there were good reasons why a writer like Wells, having taken what he could (preferably in bankable form) from the magazine editors, would also want to see The Time Machine and its successors perpetuated in the ubiquitous and durable form of the hardcover book.