

mathematics, the time traveller's trip to the distant future in Wells's novel *The Time Machine* (1895) is read through Victorian understandings of thermodynamics of entropy. Victorian scientists' prediction of the sun's energy loss and ultimate heat death is mirrored in the abandoned cold earth Wells describes (44-6). In the same chapter Wells is mentioned (but not more) as one of many authors influenced by research on the spatial fourth dimension (50). The chapter on the social sciences contains a mention of Wells's fictional account of nuclear bombs in *The World Set Free* (1914) as both influenced by and influencing scientific research (133). However, these are the only engagements with Wells's writings in *Modernism, Science, and Technology*. Explorations of the many other scientific and technological imaginings of Wells, such as the vivisection of *The Island of Doctor Moreau* (1896) or the imagined technological futures of his utopian writings, must be found elsewhere.

The book is marketed as a guide to both students and researchers, and it is indeed more of a guide or survey of the field. While the book includes a discussion of potential new directions for literature and science as a whole, Morrisson does not present particular new findings of his own. His book is an excellent guide to the field of literature and science, not only charting engagements within the field of literature and science as a whole, but also mapping out recurring terms and concepts, as well as presenting a wide-ranging exploration of modernism's engagements with scientific and technological contexts. Of great use to Wells scholars is that Morrisson not only engages with the scientific and technological shifts of the early twentieth century; he also provides backgrounds which cover Victorian understandings of science. *Modernism, Science, and Technology* is thus an incredibly useful book not only for modernist scholars, but for researchers and students of nineteenth- and twentieth-century literature more broadly.

PATRICK PARRINDER, *UTOPIAN LITERATURE AND SCIENCE: FROM THE SCIENTIFIC REVOLUTION TO BRAVE NEW WORLD AND BEYOND* (BASINGSTOKE: PALGRAVE MACMILLAN, 2015) ISBN 978-1-137-45677-9 (HB) £55.00 [MAXIM SHADURSKI]

Utopian Literature and Science: From the Scientific Revolution to Brave New World and Beyond is Patrick Parrinder's third monograph-length study in which the legacies of H. G. Wells feature prominently. Whereas *H. G. Wells* (1970) and *Shadows of the Future: H. G. Wells, Science Fiction,*

and Prophecy (1995) are centrally concerned with Wells's life and work, *Utopian Literature and Science* contextualises his writing in a rich panorama of scientific advances extending from seventeenth-century empirical observation to present-day debates surrounding post-humanism. This contextualisation takes on a dual dimension, in that it foregrounds Wells as a theoretical frame of reference and as one of the major influences on the uneasy reciprocity between utopia and science. Parrinder premises his analyses of utopian fiction and scientific writing on Wells's conception of the modern utopia. Recruiting additional theoretical perspectives from the research of Lyman Tower Sargent, Gregory Claeys, Ruth Levitas and Tom Moylan, Parrinder proposes to understand the modern utopia as a literary form preoccupied with a description of a dynamic, progress-oriented society. This society finds itself in the not-yet, rather than nowhere; it shuns being boxed into an isolated island enclosure, aspiring instead to become a World State; it also capitalises on utilitarian doctrine, which stipulates pursuit of happiness in the material realm of the here and now. Parrinder treats dystopias and anti-utopias as subsets of the modern utopia, insofar as they produce reactions to globalising social organisation, 'only to expose its bogus coherence and plausible, if twisted, logic' (5).

The book opens with a discussion of the foundational coalescences between utopia and science and their peculiar ramifications. Residing with the idea of progress, utopia shares with science the intention to change the world. In alliance, they may reach far beyond the improvement of existing socioeconomic and political arrangements, transforming the environments in which people live, as well as bodies they inhabit and ethics they espouse. For that reason, Parrinder brackets the scientist and the inventor of utopias together, as their imagination and labour bring forth an uncanny alterity with frequently unforeseeable results. The two act to open up new possibilities, which marginalise them as social misfits, regardless of their position in our own world or – by extension – in an imagined one. Aldous Huxley's *Brave New World* (1932) enacts perhaps the most vividly symptomatic response to the scientist's efforts to pursue knowledge as an end in itself. Mustapha Mond informs his audience that science has had to be reduced to 'a cookery book, with an orthodox theory of cooking that nobody's allowed to question, and a list of recipes that mustn't be added to except by special permission from the head cook'.¹ Clearly, 'illicit' scientific endeavours impinge on the social order in a flawed society, such as Huxley's World State. Throughout

¹ Aldous Huxley, *Brave New World. Brave New World Revisited*, intro. Malcolm Elwin (London: Heron Books, 1968), 199.

his book, Parrinder explores the ways in which science and the scientist may equally put pressures on the very concept of the good society, intrinsic to utopia.

The book's chapters chart a history of the intersections between science and the utopian imagination in the areas of astronomy, microscopy, genetics, medicine, eugenics, anthropology, and sociobiology. Parrinder examines a wealth of fictional material related to said areas and comprised of the writing of Francis Bacon, Francis Godwin, John Milton, Vladimir Odoevsky, Mary Shelley, W. H. Hudson, Edward Bulwer Lytton, Samuel Butler, Edward Bellamy, William Morris, Grant Allen, Yevgeny Zamyatin, Karel Čapek, Franz Kafka, Aldous Huxley, Olaf Stapledon, George Orwell, Robert Graves, Margaret Atwood. This wide-ranging examination allows Parrinder to produce an engaging and sustainable account of the scientific efforts that have sought to break through the possible, from initial enquiries into the nature of the universe through later interventions into living matter to more recent implementations of artificial intelligence. Wells's engagements with these manifestations of scientific progress traverse the three parts of the monograph.

In Part I, 'Sciences of Observation and Intervention', Parrinder investigates the figure of the evil, demonic scientist whose quest for forbidden knowledge is guided by a dark motive. Nevertheless, Doctor Moreau comes to embody a god, because his practice of vivisection replicates God's work on Adam's rib, and his island resembles Eden as a place where procreation does not happen (58). Moreau is thus assigned to Satan's party: much as his experiments vie with God's own over creation, rather than procreation, they defy the notion of utopia as a good society.

Part II, 'The Human Animal', intervenes into Wells's anthropological prognostications. Drawing on 'The Grisly Folk' (1921), Parrinder records the deprecating attitude that Wells takes towards the romanticisation of stone-age humanity. For Wells, such reversals fail to account for the evolution of the human species and the need to cultivate own stock, if not by a breeding programme, then by means of education (72). The monograph imaginatively demonstrates how the degenerative drift rules over Wells's vision of the future of the human species, which finds acute homologies with Kafka's 'The Metamorphosis' (1916). Building on the idea of humanity as a quality resulting from the complex processes of socialisation and subsequent existence in history and culture, Parrinder analyses the portrayal of Eloi and Morlocks in *The Time Machine* (1895). He observes that the two species, both descendant from man, are subject to degeneration in a situation where

the links with the past have been lost. Whereas the Eloi bear the signs of enfeebled post-human creatures, the Morlocks look like bug-eyed monsters, as unhealthy as Kafka's Gregor Samsa. Parrinder's conclusions are gloomier than his analyses: he sees in Wells 'a denial of any utopian horizon' (125). The terms of this denial imply the futility of science in its efforts to not only circumvent humanity's degenerative tendencies, but also enable utopia.

In Part III, 'Modern Utopias and Post-Human Worlds', the reader gains perceptive insight into the military aspects of the modern utopia, which transpire in Wells's elite of the Samurai, as well as Bellamy's mobilisation of an industrial army and its prophetic failings in Atwood's *The Handmaid's Tale* (1985). Parrinder also inspects the emergence of post-humanity, focusing on *Men Like Gods* (1923), 'a characteristically late-Wellsian mixture of adventure story, political allegory and "discussion novel"' (152). In contrast to their Earthling visitors, the Utopians of *Men Like Gods* are shown to have developed both superior bodies and extrasensory communications. Their individual cerebra have become wired to a collective superintelligence on whose principles Wells elaborates in his later essays and novella: *The Work, Wealth and Happiness of Mankind* (1931), *The Camford Visitation* (1937) and *World Brain* (1938). While Eloi and Morlocks, in their own peculiar ways, spell the cessation of humanity, the Utopians present the process of its continuing development, 'rendering the concept of post-humanity redundant' (153). Unlike in *The Time Machine*, the science of Utopia drives utopia forward, which ensures social progress and the growth of human potentialities.

The book's concluding chapter further problematises the status of science in a utopian society. So long as utopia remains committed to an ever open horizon, science empowers the imagination and realisation of possibilities that often transcend our conventional meaning of humanity. The images of novelty may be so uncanny that we are forced to accept our complete inadequacy and alienation from them. Even though we have the ability to dream such images, our dream work necessarily excludes us: utopia is no place for its inventors (187). However, Parrinder admits that utopian fiction, at least marginally, holds incremental scientific progress suspect, which admits a certain degree of dissent and discontent into utopia. In Wells's work, the mouthpieces of such attitudes include Lychnis in *Men Like Gods* and Theotocopulos in *The Shape of Things to Come* (1933) and *Things to Come* (1935). Both these characters have a poetic nature, which is a throwback to the past. They express the scepticism and concern that strikes a profoundly resonant chord with some of our own anxieties about change.

Just as Lychnis bewails the sacrifice of human emotionality on the altar of science, Theotocopulos decries the loss of freedom to progress. Unlike Socrates in Plato's dialogue about the Republic, Wells does not banish the poets. This gesture points up his attempt to avoid a utopia oriented exclusively towards the attainment of specialised (scientific) objectives. At the same time, neither Wells nor other utopian authors supply a utopia whose universalist claim would satisfy every human need. *Utopian Literature and Science* leaves us with a lucid account of the roles of fiction, quest and experiment in constructing a utopian society; it also poses a thought-provoking question about the limits of the utopian imagination to envisage an ultimate *novum*.

OLGA SOBOLEVA AND ANGUS WRENN, *FROM ORIENTALISM TO CULTURAL CAPITAL: THE MYTH OF RUSSIA IN BRITISH LITERATURE OF THE 1920S* (FRANKFURT AM MAIN: PETER LANG, 2017) ISBN 978-3-0343-2203-4 (PB) £48.00 [MAXIM SHADURSKI]

From Orientalism to Cultural Capital: The Myth of Russia in British Literature of the 1920s supplies an informative, theoretically and historically grounded account of how the British perceptions of Russia were shaped by some of the most prominent British writers of the early twentieth century, including H. G. Wells. Olga Soboleva and Angus Wrenn place their analyses in a conceptual context informed by Edward Said's notion of the Orient as the cultural Other of Western modernity, on the one hand, and Pierre Bourdieu's idea of cultural capital as a form of acknowledging the impact and value of a transmitted culture, on the other. Within this framework, the book sets out to record the ways in which Russia's Oriental profile (barbarous, backward, submissive, despotic), dominant in British cultural discourse from the sixteenth to the second half of the nineteenth century, gave way to a hereto unprecedented vogue for things Russian, which lasted until a change in Russia's political climate in the early 1930s. The authors' major argument is that, in a crisis of Western rationalism, Russian culture granted different ways of feeling and knowing, and served as a vehicle for modernising the Victorian idea of Englishness (62-3).

Following introductory notes and a chapter on the transformations of the myth of Russia, the book features six writer-based chapters discussing how John Galsworthy, H. G. Wells, J. M. Barrie, D. H. Lawrence, Virginia Woolf and T. S. Eliot – in their own unique ways – engaged with Russian