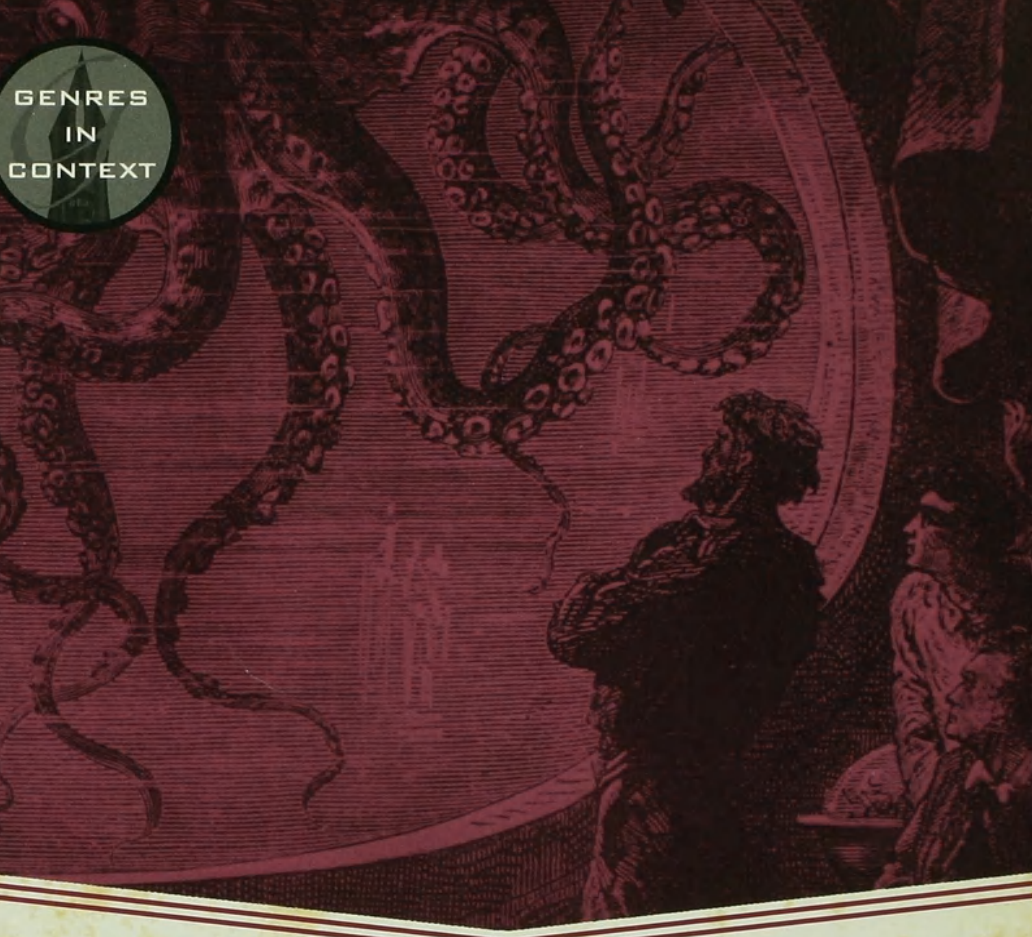
GENRES IN CONTEXT



SCIENCE FICTION BEFORE 1900

IMAGINATION DISCOVERS TECHNOLOGY

PAUL K. ALKON

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For Pascal Ducommun

Who knows what the Utopian edition
of this book should contain

General Editor's Statement

Genre studies have been a central concern of Anglo-American and European literary theory for at least the past quarter century, and the academic interest has been reflected, for example, in new college courses in slave narratives, autobiography, biography, nature writing, and the literature of travel as well as in the rapid expansion of genre theory itself. Genre has also become an indispensable term for trade publishers and the vast readership they serve. Indeed, few general bookstores do not have sections devoted to science fiction, romance, and mystery fiction. Still, genre is among the slipperiest of literary terms, as any examination of genre theories and their histories will suggest.

In conceiving this series we have tried, on the one hand, to avoid the comically pedantic spirit that informs Polonius' recitation of kinds of drama and, on the other hand, the equally unhelpful insistence that every literary production is a unique expression that must not be forced into any system of classification. We have instead developed our list of genres, which range from ancient comedy to the Western, with the conviction that by common consent kinds of literature do exist—not as fixed categories but as fluid ones that change over time as the result of complex interplay of authors, audiences, and literary and cultural institutions. As individual titles in the series demonstrate, the idea of genre offers us provocative ways to study both the continuities and adaptability of literature as a familiar and inexhaustible source of human imagination.

Recognition of the fluid boundaries both within and among genres will provide, we believe, a useful array of perspectives from which to study literature's complex development. Genres, as traditional but open ways of understanding the world, contribute to our capacity to respond to narrative and expressive forms and offer means to discern moral significances embodied in these forms. Genres, in short, serve ethical as well as aesthetic purposes, and the volumes in this series attempt to demonstrate how this double benefit has been achieved as these genres have been transformed over the years. Each title in the series should be measured against this large ambition.

Ron Gottesman

Contents

Preface

Every fan of science fiction remembers with pleasure Arthur C. Clarke's classic 1953 short story "The Nine Billion Names of God." But I believe there would be few happy memories of an introduction to science fiction's early days that read like a catalog of the nine billion works before 1900 with some claim as precursors or exemplars of the genre. Of course there were not quite that many. There are, however, enough serious claimants so that to mention, let alone discuss, them all or even those most widely read in their time would create an impression of astronomical magnitude more bewildering than enlightening. I intend this book, therefore, to provide soundings rather than a survey. Those who know, or think they know, the history of science fiction will have the satisfaction of deploring my omission of many favorite and doubtless relevant texts that are among what I consider the "nine billion."

The very plenitude of works from which historians must choose and over whose claims they quarrel is a measure of science fiction's impressive scope and vitality. No recently crystallized genre touches on so many urgent human concerns and draws more widely on the resources of previous literature. No form better illustrates the dictum that genres serve ethical as well as aesthetic purposes. Science fiction excels at articulating the new possibilities for good and evil that shape our destinies in an age when science has accelerated the proliferation of technologies once beyond even the reach of fantasy. My selection has been

governed by a conviction that the best science fiction has more often than not given powerful imaginative shape to those characteristically modern fears and hopes generated by the creative as well as the destructive potentials of advanced technology.

I use "technology" in its widest sense to mean applied science. Although technological change with drastic social consequences has been the most general impetus toward development of science fiction, as well as its master theme, this genre also owes much to the aesthetic impulse to vary literary forms, an impulse created by the dynamics of literature itself. Each successful work poses the challenge of imitating it with enough variations to achieve originality, thereby incorporating it into successor types and perhaps eventually supplanting it altogether. This game has always had its own attractions irrespective of the social contexts in which it is played or the ideas expressed: *Homo technicus* is also *Homo ludens*. My selection of texts for discussion has also been governed by the conviction that science fiction at its best is a distinctly self-conscious and self-referential genre that invites readers to appreciate the clever ways in which texts may allude to one another, to themselves, and to the act of reading.

In keeping with the wise editorial policy of Twayne's Studies in Literary Themes and Genres, I have concentrated on a few key works that mark the most significant phases in the early evolution of science fiction: Mary Shelley's *Frankenstein* (1818); Jules Verne's *Twenty Thousand Leagues Under the Sea* (1870); Albert Robida's *Le Vingtième siècle* (1883); Villiers de L'Isle-Adam's *Tomorrow's Eve* (1886); Edward Bellamy's *Looking Backward* (1888); Mark Twain's *A Connecticut Yankee in King Arthur's Court* (1889); and H. G. Wells's *The Time Machine* (1895) and *The War of the Worlds* (1898). By way of context and by way too of further orientation I also include shorter consideration of other works and related developments outside literature. To understand rightly what and how these key texts contribute to science fiction is to appreciate its advent as a distinct genre. My discussion even of these milestones is not designed to be exhaustive, however, but rather to provide orientation—and, I hope, stimulation—allowing my readers to acquaint or reacquaint themselves with these archetypes and with relevant criticism of them as a way of embarking on the right path to their own close encounter with the origins of science fiction. I have tried to provide a first, not

the last, word. Ideally, this book will work something like one of Stanley Fish's self-consuming artifacts: after perusing its pages readers should go on to experience for themselves all the primary texts mentioned to discover riches only hinted at here, proceeding next to other works on the recommended list and finally to the secondary sources found in my Notes and References and my Bibliographic Essay. Whoever goes this full route will have received full benefit from *Science Fiction Before 1900.*

After discussing in chapter 1 science fiction's aesthetics to show what is at stake in defining this protean genre, along with some attention to its social context, I proceed to chapters on England, France, and America. This arrangement somewhat blurs chronological relationships, but these may easily be sorted out in prospect or retrospect by consulting the Chronology. I wish to stress that science fiction has from its outset been an international phenomenon transcending political boundaries while nevertheless taking on distinctive features that reflect different national preoccupations. English literature has been especially abundant in providing techniques for achieving what is described in *Frankenstein* as new viewpoints to the imagination. In treating France under the rubric "technophilia" and America under "technophobia" I am, as throughout this book, less concerned with simple head counting (which would have reversed these rubrics) than with identifying significant features of the best and therefore most important works. Hence my invitation to consider Mark Twain's too often neglected or underrated invention of time travel in a work expressing profound doubts about how technology shapes human history. Hence too my invitation to consider the ways in which Jules Verne, Villiers de L'Isle-Adam, and Albert Robida express their fascination with technology. These French authors are too little known outside their homeland, which has also received insufficient credit for taking the lead in authorship of tales set in future time. Verne is famous at least by name among Anglophone readers, though in fact seldom read, mostly known for the wrong reasons, and still underrated even among historians of science fiction, thanks to wretched English translations that were until recently the only ones available for his major works. I hope this book will help make Verne and his compatriots more properly appreciated and more frequently read.

I stop at the nineteenth century's close with some uneasiness at perhaps perpetuating neglect of the interesting interval between Verne's death in 1905 and Hugo Gernsback's inauguration of the *Amazing Stories* pulp magazine in 1926, which is often but not altogether accurately taken as the genre's modern starting point. To understand the achievement of twentieth-century science fiction, it is necessary to see how remarkably well its foundations had been established by 1900. I have fewer qualms about concentrating on those sturdy foundations when I recollect that Twayne's forthcoming volume on science fiction after 1900 will be from the expert hand of Brooks Landon, to whose pages I refer readers for a companion to my tale.

A few paragraphs in chapter 1 are adapted with the kind permission of the University of Delaware Press from my essay "*Gulliver* and the Origins of Science Fiction" in *The Genres of Gulliver's Travels*, ed. Frederik N. Smith (Newark: University of Delaware Press, 1990). Several paragraphs in chapters 2 and 3 are adapted with permission of the University of Georgia Press from my *Origins of Futuristic Fiction* (Athens: University of Georgia Press, 1987). I am grateful to Frederik Smith for insisting that I think about Swift and science fiction. I thank Karen Orchard for approving my truancy from Georgia. George Slusser of the University of California at Riverside has, as always, been a stimulating guide to the indispensable resources of the Eaton Collection. Michael A. Cropper, Librarian of the Los Angeles Maritime Museum, has kept my discussion of Verne from going aground on the reefs of ignorance. The OVDS ship *Nordnorge* took me safely past the Maelstrom to the Lofoten Islands with a good deal more comfort and less trouble than Professor Aronnax and Captain Nemo experienced off those fascinating shores. Dr. Laura E. Fox maintains my sight but cannot be blamed for my conclusions about what I see. Sylvia K. Miller has provided helpful advice with saintly patience. Timothy J. DeWerff expertly supervised this book's final countdown. Ronald Gottesman's exemplary collegiality has been as inspiring as his refreshing fidelity to the idea that genres are important because imaginative literature matters. In my voyage on this sea of words, as in other voyages, Ellen has been my ideal shipmate.

Chronology

1516 Sir Thomas More's *Utopia*.

1590 Compound microscope is invented by Zacharias Janssen.

1609 Galileo makes his first telescope.

1634 Johannes Kepler's *Somnium* (*The Dream*).

1638 Francis Godwin's *The Man in the Moon; or, A Discourse of a Voyage Thither by Domingo Gonsales.*

1657 Cyrano de Bergerac's *Histoire comique des états et empires de la lune* (*Comic History of the States and Empires of the Moon*).

1659 Jacques Guttin's *Epigone, histoire du siècle futur* (Epigone, a story of the future century).

1662 Cyrano de Bergerac's *Histoire comique des états et empires du soleil* (*Comic History of the States and Empires of the Sun*).

1719 Daniel Defoe's *Robinson Crusoe.*

1722 Daniel Defoe's *A Journal of the Plague Year.*

1726 Jonathan Swift's *Gulliver's Travels.*

1752 Voltaire's *Micromégas.*

1769 James Watt builds a practical steam engine.

1771 Louis-Sébastien Mercier's *L'An 2440* (The year 2440).

1783 Pilâtre de Rozier makes first human flight, in a hot-air balloon invented by Jacques and Joseph Montgolfier.

1797 Mary Wollstonecraft Shelley is born.

1798 Thomas Malthus's *An Essay on the Principle of Population.*

1801 Robert Fulton builds a submarine, named *Nautilus,* for France.

1802 Nicolas-Edme Restif de la Bretonne's *Les Posthumes* (The posthumous).

1804 First steam locomotive.

1805 Jean-Baptiste Xavier Cousin de Grainville's *Le Dernier homme* (*The Last Man*).

1809 Edgar Allan Poe is born.

1818 Mary Shelley's *Frankenstein; or, The Modern Prometheus.*

1825 The Stockton and Darlington, in England, is the first regularly operated steam railroad.

1826 Mary Shelley's *The Last Man.*

1827 Jane Webb's *The Mummy: A Tale of the Twenty-Second Century.*

1828 Jules Verne is born.

1831 Mary Shelley's revised edition of *Frankenstein.*

1834 Félix Bodin's *Le Roman de l'avenir* (The novel of the future).

1835 Edgar Allan Poe's "The Unparalleled Adventure of One Hans Pfaall." Mark Twain [Samuel Langhorne Clemens] is born.

1836 Louis-Napoléon Geoffroy-Château's *Napoléon et la conquête du monde* (Napoleon and the conquest of the world).

1838 Villiers de l'Isle Adam is born. The British steamship *Sirius* makes the first transatlantic crossing under continuous steam power.

1844 Edgar Allan Poe's "The Balloon Hoax" and "Mesmeric Revelation."

1846 Emile Souvestre's *Le Monde tel qu'il sera* (The world as it will be).

1848 Albert Robida is born.

1849 Edgar Allan Poe's "Mellonta Tauta"; Poe dies.

1850 Edward Bellamy is born.

1851 Mary Shelley dies.

1854 Charlemagne-Ischir Defontenay's *Star ou psi de Cassiopée* (*Star: Psi Cassiopeia*).

1859 Charles Darwin's *On the Origin of Species by Means of Natural Selection.*

1861 Transcontinental telegraph is established in North America.

1863 Jules Verne's *Cinq Semaines en ballon* (*Five Weeks in a Balloon*).

1865 Jules Verne's *De la Terre à la lune* (*From the Earth to the Moon*).

1866 H. G. Wells is born. Transatlantic telegraph is established.

1870 *Vingt mille lieues sous les mers* (*Twenty Thousand Leagues Under the Sea*): Jules Verne's *Autour de la lune* (*Around the Moon*).

1871 Sir George T. Chesney's *The Battle of Dorking.*

1872 Samuel Butler's *Erewhon; or, Over the Range.*

1873 *Le Tour du monde en quatre-vingts jours* (*Around the World in Eighty Days*).

1874–1875 Jules Verne's *L'Ile mystérieuse* (*The Mysterious Island*).

1876 Alexander Graham Bell invents the telephone.

1877 Jules Verne's *Hector Servadac.* Thomas A. Edison invents the first practical phonograph.

1879 Jules Verne's *Les Cinq Cents Millions de la Bégum* (*The Bégum's Fortune*). Thomas A. Edison invents the electric light with carbon filament.

1883 Albert Robida's *Le Vingtième siècle* (The twentieth century); *La Vie électrique* (The electric life).

1884 Edwin A. Abbott's *Flatland: A Romance of Many Dimensions.*

1886 Robert Louis Stevenson's *The Strange Case of Dr. Jekyll and Mr. Hyde.* Jules Verne's *Robur le conquérant* (*The Clipper of the Clouds*). Villiers de l'Isle-Adam's *L'Eve future* (*Tomorrow's Eve*).

1887 Albert Robida's *La Guerre au vingtième siècle* (War in the twentieth century). J. H. Rosny Aîné's [Joseph-Henri Honoré Boëx] "Les Xipéhuz" (*The Xipehuz*). Sir Henry Rider Haggard's *She.*

1888 Edward Bellamy's *Looking Backward: 2000–1887.*

1889 Mark Twain's *A Connecticut Yankee in King Arthur's Court.* Jules Verne's *Sans dessus dessous* (*The Purchase of the North Pole*). Villiers de l'Isle-Adam dies.

1891 William Morris's *News from Nowhere.*

1893 Nicolas Camille Flammarion's *La Fin du monde* (*Omega: The Last Days of the World*). George Griffith's *The Angel of the Revolution.*

1895 H. G. Wells's *The Time Machine; The Stolen Bacillus and Other Incidents.*

1896 H. G. Wells's *The Island of Doctor Moreau.*

1897 Kurd Lasswitz's *Auf zwei Planeten* (*Two Planets*). H. G. Wells's *The Invisible Man.*

1898 Edward Bellamy dies. Garrett Putnam Serviss's *Edison's Conquest of Mars.* H. G. Wells's *The War of the Worlds.*

1899 H. G. Wells's *When the Sleeper Wakes: A Story of Years to Come; Tales of Space and Time.*

1900 First U.S. Navy submarine, the *Holland,* is commissioned.

1901 H. G. Wells's *The First Men in the Moon.*

1903 Wilbur and Orville Wright's biplane makes first flight, at Kitty Hawk, North Carolina.

1904 H. G. Wells's *The Food of the Gods, and How It Came to Earth.*

1905 Jules Verne dies. H. G. Wells's *A Modern Utopia.*

1906 H. G. Wells's *In the Days of the Comet.*

1907 Jack London's *The Iron Heel.*

1908 H. G. Wells's *The War in the Air.*

1909 E[dward] M[organ] Forster's "The Machine Stops."

1910 Mark Twain dies.

1911 H. G. Wells's *The Country of the Blind and Other Stories.*

1912 Sir Arthur Conan Doyle's *The Lost World.*

1914 H. G. Wells's *The World Set Free.*

1915 Charlotte Perkins Gilman's *Herland.*

1917 Edgar Rice Burroughs's *A Princess of Mars.*

1919 In "A Method of Reaching Extreme Altitudes," published by the Smithsonian Institution, Robert H. Goddard proposes sending a rocket to the moon.

1926 Albert Robida dies. Robert H. Goddard builds the first liquid-fuel rocket.

1945 United States uses atomic bombs in war against Japan.

1946 H. G. Wells dies.

1969 United States spaceship commanded by Neil A. Armstrong lands on the moon.

1

A Short History of the Future

> Everything must have a beginning, to speak in Sanchean phrase; and that beginning must be linked to something that went before. The Hindus give the world an elephant to support it, but they make the elephant stand upon a tortoise.
>
> Mary Shelley, "Author's Introduction" to the 1831 edition of *Frankenstein*

Definitions and Aesthetics of Science Fiction

Science fiction starts with Mary Shelley's *Frankenstein*. Its first critic was Percy Shelley. For his wife he wrote a preface that (as she explains in her 1831 introduction) was printed in the 1818 edition as though it were by her. If this ventriloquism betrays some hesitancy in launching a new kind of tale, *Frankenstein* itself displays such confident mastery that for almost two centuries it has rewarded the attention of readers and inspired writers in a genre largely devoted to variations on its theme of the uses and abuses of science. *Frankenstein*'s 1818 preface distinguishes between its scientific plot and the more familiar action of Gothic fiction: "I have not considered myself as merely weaving

a series of supernatural terrors. The event on which the interest of the story depends is exempt from the disadvantages of a mere tale of spectres or enchantment."[1] There is no mistaking the dismissive tone of these references to "mere" stories of ghosts or magic. By printing this statement as her own, Mary Shelley endorsed what Percy Shelley understood: that *Frankenstein*'s claim to originality is its rejection of the supernatural. Science fiction can only exist when it is possible to distinguish in this way between natural and supernatural as realms that very differently create "the interest of the story."

Paradoxically, however, neither *Frankenstein*'s 1818 preface nor its 1831 introduction by Mary Shelley renounces the goal of inducing "terrors." Quite the contrary. Terror remains a desirable effect. It is only supernatural terrors that are to be avoided. Readers are to be frightened by natural means involving science. In suggesting that fear can be achieved by a new kind of plot, *Frankenstein*'s preface and introduction stress both its claim to novelty and its affiliation to accepted Gothic forms subsumed under the label "ghost story." Although this identifies precursors, the affiliation is more than a matter of ancestry.

The affinities of science fiction and Gothic literature also reveal a common quest for those varieties of pleasing terror induced by awe-inspiring events or settings that Edmund Burke and other eighteenth-century critics called the sublime. A looming problem for writers in the nineteenth century was how to achieve sublimity without recourse to the supernatural. In 1819 John Keats famously complained in *Lamia* that science was emptying the haunted air. The supernatural marvels that had been a staple of epic and lesser forms from Homeric times would no longer do as the best sources of sublimity. Although ghost stories and related Gothic fantasies were to prove surprisingly viable right through the twentieth century, perhaps because they offer respite from the omnipresence of technology, writers sought new forms that could better accommodate the impact of science. Epics were displaced by realistic novels of quotidian life. By 1800 even William Wordsworth could imagine a time when "the remotest discoveries of the Chemist, the Botanist, or Mineralogist, will be as proper objects of the Poet's art as any upon which it can be employed."[2] Only sixteen years after *Frankenstein*, Félix Bodin argued for the importance of futuristic