

Science Fiction Before 1900

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In order to understand the gradual emergence of texts that might be called 'science fiction' – by which I mean speculative fiction based on or reacting to the advancement of scientific knowledge – it is useful to bear in mind certain features of the environment preceding and surrounding that emergence. The 'environment' of literary texts is inevitably composed largely of other literary texts, but there are other circumstantial factors that ought not to be neglected.

In terms of the literary environment, several genres existed before the advent of science fiction into which texts of that sort might be slotted. By far the most important of them was 'utopian fiction,' defined in the widest possible sense as fictions set in imaginary places. Such fictions antedate writing, featuring extensively in myth, legend and folklore, as well as anecdotal 'travelers' tales.'

Utopian fiction is a useful genre for accommodating various types of fiction, the three most significant being pure flights of the imagination, satirical transfigurations of society and models of improved societies, often in combination, but it suffers, inevitably, not only from an implication of unreality but of exaggeration and incipient absurdity. The taint of the 'tall tale' constituted an obstacle to plausibility that serious science fiction would be forced to struggle to overcome.

The ultimate in flagrant absurdity, where traveler's tales were concerned, was constituted even in antiquity, by accounts of trips to the moon – a location that became a depository of all kinds of deliberate nonsensicality. This tradition posed particular problems for writers who became interested in representing the moon as the kind of world that astronomers had discovered it to be, and considering seriously the idea that humans might one day be able to transport themselves there. Even without the latter consideration, the notion that the moon was a world and the nature of its relationship to the Earth became an important topic of controversy in the 16th and 17th centuries, when Copernicus' heliocentric model of the solar system came into conflict with the Aristotelian model that had been accepted into the doctrine of the Catholic Church via Thomas Aquinas. When the sophistication of astronomy by new mathematical and optical instruments began to accumulate evidence in favor of the Copernican model, it brought scientists like Galileo into conflict with the Papacy.

The astronomer John Kepler attempted to make the Copernican theory more easily graspable by reporting astronomical events as they would be observed by

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an observer on the moon, adding an ingenious passage on the manner in which life on the moon might be adapted to very long diurnal cycle, in a manuscript published posthumously as *Somnium* (1634). In order to relocate the observer in question he had him dream that he was carried to the moon by a 'daemon' – by which he meant a spirit of knowledge, not a minion of the Devil. That was, perhaps, a slightly unfortunate choice, in that the other major environmental factor producing an important and difficult obstacle for would-be science fiction writers to overcome was a subtle implication of diabolism that had haunted many scientific pioneers during the Renaissance.

Having lost much of the legacy of Classical knowledge and philosophy during the Middle Ages, Western Europe was able to embark on a process of rediscovery following the collapse of the Byzantine Empire and the importation of many works preserved by copyists there, which were, naturally, of great interest to Western scholars. The potential for such rediscovered ideas and their possible further extension to come into conflict with religious dogma was, however, considerable, so the entire process seemed to the extremely devout to be a flirtation with heresy, and a distinct tendency developed for ambitious scholars to acquire a reputation, posthumously if not while they were alive, as diabolists, sometimes supported by the apocryphal attribution of books of black magic; examples include Roger Bacon, Albertus Magnus, Cornelius Agrippa, John Dee and Michael Scott. The tradition produced a highly influential literary text in the *Faustbuch* (1587), and the iconic figure of Faust overshadowed scholars thereafter – a haunting that eventually came to seem even more pertinent in the case of scientists.

All three of the principal threads of utopian fiction cited above are cleverly entwined in Jonathan Swift's *Gulliver's Travels* (1726), a collection of four fantastic voyages whose third part, involving a trip to the flying island of Laputa, devotes particular attention to parodying the endeavors of scientists, especially astronomers, and whose fourth part, describing an ideal equine society, is conscientiously pastoral. The novel thus instituted a tradition of 'anti-science fiction,' whose reliance on similar motifs and narrative strategies has always resulted in its subsumption within the genre whose ambitions it opposes. Given the importance of skepticism and theoretical dissent to the advancement of science, however, this confusion is not entirely inappropriate. Unfortunately, scientists seemed vulnerable to this kind of satirization, and the cost of shaking off the taint of diabolism was often a simple displacement into slightly sinister absurdity. The gradual replacement of the popular assumption that scientists might be bad by the assumption that they might be mad did them no favors.

Another relevant subgenre pioneered by Classical philosophers, the *conte philosophique*, was revived in the 18th century as a skeptical and satirical medium, and played host to a number of significant ancestors of science fiction. The

most notable example is Voltaire's *Micromégas* (1752), which brought visitors to Earth from Sirius and Saturn in order to laugh at human narcissism. Tiphaigne de la Roche's *Amilec* (1753) was a bold attempt to include an earnest theory of reproduction and embryology within a broader satirical account of the transmission of life throughout the universe by spores; unfortunately, working without the aid of powerful microscopes, Tiphaigne lacked essential data regarding the process of reproduction, and his theory turned out to be wrong. In general, the satirical aspect of *contes philosophiques*, which were mostly skeptical, tended to be directed at adversaries of science rather than against scientists, and they helped to begin a slow process of redress.

Many French utopian fantasies and *contes philosophiques*, along with several translations from English, were reprinted in a thirty-six volume series of *Voyages imaginaires* produced by Charles Garnier in 1787-89. That attempt to define and exemplify a genre might have been even more influential had it not been interrupted by the Revolution; even so, it provided a vital landmark for later writers, in helping to give them consciousness of a useful generic framework and method. Camille Flammarion included many of its constituent works in the pioneering history of cosmological speculative fiction that he constructed in *Les Mondes imaginaires et les mondes réels* (1864), and the precedent set by the series probably encouraged Jules Verne's publisher, P.-J. Hetzel, to market the writers' works collectively under the heading of *Voyages extraordinaires*.

The problems of adapting traditional narrative frameworks to the work of serious speculation became more obvious when the philosophy of progress, developed in France before the Revolution and supposedly illustrated thereby, made the future an imaginative realm ripe for exploration. Louis-Sébastien Mercier's pioneering account of a future Paris transformed by a crucial alliance of scientific advancement and social reform *L'An deux mille quatre cent quarante* (1771) was, however, weakened by the obligation to represent the vision as a dream; the problem of designing and developing appropriate narrative frames for scientific *contes philosophiques* and speculations about the possible shape of the future inevitably became acute during the 19th century, and was not easily solved.

The production of more adventurous literary works was greatly enhanced by the spread of Romantic Movements through Europe, which celebrated the creative power of the imagination in all its aspects. The sequence began in Germany, where it produced a new version of *Faust* (1808 & 1832) by J. W. Goethe, which, by opposing the identification of science with diabolism unfortunately served also to reemphasize it. That lingering hint of diabolism is powerfully displayed in E. T. A. Hoffmann's short story "Der Sandmann" (1816), which became one of the most widely-reprinted and influential texts of the period in its portrayal of the 'mechanician' Coppelius and his construction of a lifelike automaton, outshining

less melodramatic works as Julius von Voss's futuristic fantasy *Ini* (1810), and helping to add a sinister note to the idea of humanoid automata whose echoes extended into the 20th century.

The Gothic elements of "Der Sandmann" are closely akin to those of the even more influential *Frankenstein* (1818), by Mary Shelley, the wife of one of the leaders of the British Romantic Movement. *Frankenstein* became the most influential of all early works of science fiction, and made a highly significant contribution, along with "Der Sandmann" to the ongoing shift of perspective in which the suspicion of diabolism attached to scientists was giving way to the suspicion of madness – a concept that had itself been undergoing a gradual evolution. No longer seen as a matter of divine affliction or demonic possession, insanity was increasingly coming to be viewed as a medical problem amenable to clinical analysis and potential treatment. The scientist's tacit Faustian pact with the Devil that became entirely metaphorical, but without losing its sinister aspect; it became a matter of unhealthy obsession rather than unholy ambition, but was considered no less dangerous for that by its detractors.

Frankenstein had the additional advantage, in providing a model for future writers, of employing a basic story-arc that was convenient and endlessly repeatable, in which a scientist makes a discovery or creates an invention, which produces unforeseen horrible consequences, requiring both the innovation and its author to be destroyed, thus providing a satisfactory sense of narrative closure. That formula remains so tempting in its simplicity and neatness that it remains commonplace even today, in spite of the fact that its generalization implies that all innovation is implicitly evil – thus providing yet another ideological obstacle for literary champions of science to overcome, or at least to challenge.

The British Romantic Movement that produced *Frankenstein* also produced a handful of other pioneering works, although less than might have been expected, given the close personal relationship between some leading British scientists and some of the leading Romantic poets. The scientist Humphry Davy produced a remarkable cosmic vision in the course of his *Consolations in Travel: The Last Days of a Philosopher* (1830), which attempted to envisage life adapted to the conditions of existence on other worlds. The poet-turned-scientist Robert Hunt included a similarly extravagant, but entirely Earthbound vision in his novel *Panthea* (1849), which was almost certain written before his propagandistic appeal for more celebration of *The Poetry of Science* (1848). The latter book has the distinction of having prompted the poet William Wilson to call for the development a new genre of "Science-Fiction" (139) in *A Little Earnest Book Upon a Great Old Subject* (1851) but there was no significant response to his appeal.

The French Romantic Movement was only slightly more productive to begin with, although its first leader, Charles Nodier, produced a short series of futuristic fantasies satirizing the idea of 'perfectibility' by means of images of a technologically-advanced future. The principal components of the series are "Hurlubleu" and "Leviathan Long" (both 1833). Nodier's friend Félix Bodin, whose opinion of the philosophy of progress was much less jaundiced, produced a manifesto of his own for *Le Roman de l'avenir* (1834) and attempted to lay the groundwork for a new genre of futuristic novels by providing an exemplar, but he was unable to finish it, as it fell prey to all the traps afflicting the possibility of making that kind of fiction viable. Nodier's efforts were extrapolated at a different angle by Émile Souvestre, whose skeptical account of *Le monde tel qu'il sera* (1846) flatly contradicted the idea that technological progress facilitated social progress, arguing that the reverse is the case, thus producing the first of many works in which the future seems a bleak, hostile and direly uncomfortable locale by virtue of the use of new technologies to serve the age-old vices of greed and political oppression.

Other environmental factors came into play in this period, however, most importantly the rapid spread of literacy, which not only increased the size of the potential literary audience but also broadened it out in social terms. The 1840s became the first great era of popular literature, at least in those countries that were quickest off the mark, France being one of them. The period saw a boom in the production of new periodicals, which opened up a vast new market for writers of all kinds, including such foot-soldiers of the Romantic Movement as Joseph Méry, one of the first writers to produce a range of stories distributed across the spectrum of what would later become the science fiction genre: lunar fantasies, futuristic fantasies, including a post-catastrophe story, and an early exercise in alternative history. Unfortunately, the development of the new marketplace suffered a drastic interruption in 1848 by the Revolution of that year, further complicated in 1851 by Louis Napoléon's *coup d'état* and the subsequent introduction of rigid censorship.

The other nation that was quick to launch a crusade for universal literacy was the USA, where periodical publication similarly boomed and opened up an inviting marketplace, in spite of the geographical difficulties inhibiting distribution. The US had not had much of a Romantic Movement by comparison with the leading European nations, but it did have two writers of considerable individual significance in Edgar Allan Poe and Nathaniel Hawthorne. Both writers had strong Gothic tendencies, which are very evident in Hawthorne's most important science fiction story, "Rappaccini's Daughter" (1844), which contains significant echoes of "Der Sandmann," but Poe was much more versatile, producing exemplars over an even wider range than Méry, including the significant interplanetary fantasy

"Hans Phaal" (1835; revised 1840 as "The Unparalleled Adventure of One Hans Pfaall"), the apocalyptic fantasy "The Conversation of Eiros and Charmion" (1839), the extravagant visionary fantasy "The Mesmeric Revelation" (1844), which provided the seed for the more elaborate *Eureka* (1848), and several other unprecedented works.

Poe was convinced that "Hans Phaal" was the inspiration for the most famous 'hoax' of the 19th century, when the *New York Sun* ran a series of articles in 1835 detailing discoveries supposedly made by the astronomer Sir John Herschel using a new telescope in South Africa. The series began with moderate revisions of lunar geography but eventually featured the 'discovery' of a civilization of bat-winged humanoids. Widely reprinted, and widely believed by the credulous, it prompted other newspaper hoaxes – including Poe's own "Balloon Hoax" (1844) – and further works of fiction; all four of Méry's lunar fantasies are supplements to it.

A corollary of the rapid spread of literacy in France and the USA was a considerable enthusiasm for the popularization of science, which was seen as an urgent mission in France because the tradition-bound education system, focused on the learning of Latin and Greek, was very slow to take modern science aboard, and popularizers were keen to explore other means of not merely delivering scientific information to the general public in a palatable fashion, but also inspiring the young with a sense of the potential and poetry of science. All of the major figures in the crusade to popularize science in France produced some science fiction, most notably the astronomer Camille Flammarion, who experimented with numerous narrative methods in the course of his career. His first book of that sort was a collection of journalistic pieces, *Récits de l'infini* (1872), one of which, the cosmic vision *Lumen* (1864-5; rev. 1887) was further expanded into the most elaborate and extravagant work of its kind thus far attempted, surpassing both of its key influences, Davy's *Consolations in Travel* and Poe's *Eureka* (1848). Flammarion's foremost rival as a popularizing journalist, Henri de Parville, produced a newspaper hoax of his own in a series of articles describing the discovery in America of a "Martian mummy" embedded in a meteorite and the deliberations of the scientific commission appointed to investigate the find, reprinted in book form as *Un habitant de la planète Mars* (1865).

A third participant in the popularization boom, Samuel Henri Berthoud, produced a four-volume set of *Fantasies scientifiques* (1862), but only a handful were speculative. One of the items he reprinted there, however, was the much earlier "Voyage au ciel" (1841), the most thoughtful account so far produced of the special mental qualities advantageous to scientific work: qualities that are taken as symptoms of madness by the protagonist's neighbors, but which actually represent a higher form of sanity, which allows him to solve the problem of dirigible

aeronautics before his ill-treatment by fate and his fellows eventually prompts him to bid farewell to the Earth forever.

It was the fashionability of the popularization of science that launched and shaped Jules Verne's career; P.-J. Hetzel persuaded him to turn a series of articles on aeronautics that he produced into an adventure novel, and then offered him a salary to produce wordage on a regular basis for him. Hetzel tried to suppress Verne's more adventurous tendencies, not only refusing to publish his futuristic account of *Paris au Vingtième siècle* (written c1863) but instructing him to bury it permanently (it was discovered and published in 1994). Hetzel did, however, publish *Voyage au centre de la terre* (1863; rev. 1867), *De la terre à la lune* (1865) and *Vingt mille lieues sous les mers* (1870) before tightening the rein even further, only allowing Verne's ever-exuberant speculative imagination to break out occasionally. It is perhaps largely due to Hetzel that the genre of 'Vernian fiction' inspired by Verne's success, which gave rise to its own magazine in the *Journal des Voyages* (1877-1928), remained relatively restrained, making use of hypothetical technical innovations primarily as means of transport to exotic terrestrial locales.

Like France, the USA, suffered a significant setback in the development of the periodical medium and its hospitality to literary experimentation when the Civil War broke out in 1861, and it was not until some years after the war's end that the publication of popular fiction picked up again. The major development of that kind in the 1870s was a boom in 'dime novels,' which did take aboard a component of Vernian adventure fiction but remained primarily focused on the genres of the Western and detective fiction. The American Civil War also displayed a number of new military technologies – eagerly noted by some European observers – which helped cast a new shadow over images of the future, by making the likelihood that future wars would be much more devastating seem not only more plausible but quite inevitable.

While forward-thinking European nations began to re-arm in expectation of such a war, a boom began in 'future war fiction,' spearheaded in Britain by the enormous impact of George T. Chesney's account of "The Battle of Dorking" (1871). Chesney's immediate cue was the facile triumph of the new German war machine in the Franco-Prussian War, which provided yet another interruption to the development of speculative fiction in France. The idea that Germany might try to do to Britain what it had done to France obsessed British politics and British futuristic fiction for the next half-century.

In Germany, of course, the reaction to the triumph was quite different, ushering in a new confidence not merely in the might of the newly-consolidated nation state but also in the technology that had facilitated its triumph. It is therefore not surprising that the most comprehensive manifesto yet for a science fiction

genre was produced in Germany in 1878, in the introduction to Kurd Laßwitz's *Bilder aus der Zukunft*, whose short stories provided far more convincing exemplars of how that genre might be developed than Félix Bodin's abortive novel of the future. Laßwitz went on to practice what he preached in further works, most notable the massive utopian novel *Auf Zwei Planeten* (1897), but yet again, his manifesto rallied little support from other writers.

The most convincing attempt in France to follow up Bodin's prospectus for futuristic fiction was Albert Robida's highly imaginative *Le Vingtième siècle* (1882), but the shadow of the Franco-Prussian War still weighed heavily upon him, and his brief but heavily-illustrated account of *La Guerre en la vingtième siècle* (1883; rev. 1887) overshadowed its companion-piece, and Robida never did manage to liberate his technological optimism from his anxieties about the destructiveness of new weaponry.

The steady accumulation of such examples, particularly in France, helped cement the idea that there was now a genre of fiction dedicated to the exploration of technological possibilities and their potential impact of social life, but there was no consensus anywhere as to what it ought to be called. In Britain, the mathematician C. H. Hinton published two collections of *Scientific Romances*, the first of them in 1886, which enjoyed little success in themselves but did help to popularize that term in Britain. In France, the editor of the weekly popular science magazine *La Science Illustrée*, Louis Figuier – who had not only inspired Verne's *Voyage au centre de la terre* but had prompted its revision when he issued a new and revised edition of the work on which it was based – introduced a *feuilleton* section to the magazine under the rubric *roman scientifique* in 1889. He actively promoted that genre for the next ten years without ever quite establishing the label firmly as a recognized publishing category. In the US Edgar Fawcett published a manifesto for a new genre of "realistic romances" in the preface to *The Ghost of Guy Thyrle* in 1895, but that went completely un-echoed.

The last fifteen years of the 19th century, however, witnessed drastic changes in the literary marketplace, which permitted a new boom in literary experimentation. The development of new technologies of printing and paper-manufacture prompted a new surge in periodical publication, and fervent competition between the new magazines. The experimental phase did not last long, and science fiction was not, in retrospect, a particularly successful aspect of experimentation in economic terms, but it lasted long enough, and as successful enough, to provide the genre with a solid platform.

In Britain, the initial focus of futuristic fiction in the new periodicals was future war fiction, which rapidly expanded from relative sobriety to the wild extravagance of George Griffith's *The Angel of the Revolution* (1893), a lurid account of the exploits of heroic 'Terrorists' abundantly armed with airships, submarines

and high explosives. Where Griffith led, many others followed, but by far the most significant writer to exploit the boom was H. G. Wells, who replicated and extrapolated Edgar Allan Poe's determination not only to explore the vast range of possibilities being opened up by contemporary science, but also to investigate the utility of a whole range of narrative frameworks by means of which to represent them.

A series of experiments of this kind permitted Wells to convert an awkward series of fictionalized essays, "The Chronic Argonauts" (1888) into the most significant endeavor in the genre yet attempted, *The Time Machine* (1895), which popularized a new method of opening the future to serious speculative scrutiny. Hardly anyone knew at the time, or for the next hundred years, that he had been anticipated in the literary use of a time machine by the Spanish diplomat Enrique Gaspar in *El Anachronopete* (1887). More important than the time machine per se, however, was the more general strategy that had produced it; Wells took a newly robust attitude to the business of providing apologetic jargon to 'explain' the access of narrative viewpoints to interesting hypothetical scenarios. A similar ingenuity was further deployed in a host of short stories and the key novels *The Invisible Man* (1896), *The Island of Doctor Moreau* (1897), *The War of the Worlds* (1898) and *The First Men in the Moon* (1901), all of which provided crucial reference-points and models for the new genre, and mapped out the generic blueprint eventually taken over and rapidly vulgarized by American pulp science fiction.

The importance of Wells' forceful literary method was immediately realized by Louis Figuier, who made unprecedentedly lavish provision for translations of his short fiction in *La Science Illustrée*, although that did not succeed in giving his genre label the boost it needed, partly because the other French publication that gave even more extravagant hospitality to Wells translations, the *Mercure de France*, refused to use it. In Britain, the label 'scientific romance' had a greater success in journalistic writings about 'Wellsian fiction,' and among the other writers who rallied to the cause, but Wells did not like it, and his initial rejection of it caused sufficient confusion to prevent its firm establishment, thus leaving the now-established genre without a universally-accepted label until well into the 20th century, and leaving the way clear for American cultural imperialism to impose the ultimate decision.

As soon as the 20th century had begun, moved by the earnest passion of his strong socialist convictions, Wells gave up wide-ranging exploration of the infinite range of future possibility in favor of a much less interesting quest to discover and comment upon the particular form that the future actually might take if people were prepared to institute the necessary political reforms. Even so, between 1888 and 1901, Wells had single-handedly laid the foundations for the

distinctive methods of modern science fiction, which routinely employs the narrative techniques he developed, gaudily seasoned with melodrama, to reinvigorate the frameworks of utopian fiction and *conte philosophique* far more effectively than anyone had previously contrived.

Wells was by no means alone in popularizing futuristic fiction in the last fifteen years of the century, even in England, where George Griffith and other future-warmongers lent him useful, if largely unappreciated, support. In the US, the best-selling book of the period was Edward Bellamy's futuristic utopia *Looking Backward, 2000-1887* (1888), which provoked a host of imitations and ideological replies in Europe as well as America, including Ignatius Donnelly's extravagant *Caesar's Column* (1890). In France, Camille Flammarion combined the influence of Wells with that of Poe in *La Fin du Monde* (1894) – originally written for Figuière's *feuilleton* – and was assisted in breaking new ground by younger writers like J.-H. Rosny, author of "Les Xipéhuz" (1887) and "Un Autre monde" (1895).

The cause of the genre was also assisted by some spectacular new discoveries in science, which opened up new imaginative scope, both for future possibilities and for the elaborate development of the kind of 'facilitating devices' whose narrative use Wells had pioneered, especially the discovery of X-rays by Wilhelm Röntgen and the development of wireless telegraphy by Guglielmo Marconi in 1895 and the discovery of radioactivity by Henri Becquerel and the electron by J. J. Thomson in 1896. In consequence of those unexpected but imaginatively-stimulating discoveries, 'rays' of various kinds became favorite devices of science fiction, capable of excusing almost any imaginative extravagance, at least tokenistically. From then on, all the environmental and literary foundations of the genre were solidly in place, and the sky was no longer any kind of imaginative limit.

Bibliography

- Anon. *Historia von D. Johannn Fausten*. Frankfurt: Johann Spies, 1587. [also known as *Das Faustbuch*.]
- Bellamy, Edward. *Looking Backward, 2000-1887*, Boston: Ticknor, 1888.
- Berthoud, S. Henry. "Voyage au ciel" *La Presse* 2-3 janvier 1841. Reprinted in *Fantasies scientifiques de Sam*. Paris: Garnier, 4 vols. 1862.
- Bodin, Félix. *Le Roman de l'avenir*. Paris: Lecointe et Poucin, 1834.
- Chesney, George T. *The Battle of Dorking: Reminiscences of a Volunteer*. *Blackwood's Magazine* May 1871; reprinted as a pamphlet, Edinburgh & London: Blackwood, 1871.
- Davy, Humphry. *Consolations in Travel: The Last Days of a Philosopher*, London: John Murray, 1830.
- Donnelly, Ignatius. *Caesar's Column. A Story of the Twentieth Century* (as Edmund Boisgilbert M.D.). Chicago: F. J. Schulte, 1890.
- Fawcett, Edgar. *The Ghost of Guy Thyrtle*. Peter Fenelon Collier's Once-a-Week Semi-Monthly Library, 21 March 1895; reprinted, London: Ward Lock, 1895.

- Flammarion, Camille. *La Fin du Monde*. Paris: Flammarion, 1894; trans. J. B. Walker as *Omega: The Last Days of the World*. New York: Cosmopolitan, 1894.
- *Lumen*. Paris: Marpon et Flammarion, 1887; expanded edition, 1906.
- *Les Mondes imaginaires et les mondes réels: voyage pittoresque dans le ciel et revue critique des théories humaines, scientifiques et romanesques, anciennes et modernes sur les habitants des astres*. Paris: Didier et cie, 1864; expanded ed. Paris: Marpon et Flammarion, 1892.
- *Récits de l'infini: Lumen; Histoire d'une comète; Dans l'infini*. Paris: Didier et cie, 1872; trans. S. R. Crocker as *Stories of Infinity: Lumen; The History of a Comet; In Infinity*. Boston: Roberts Bros, 1873; expanded ed. as *Récits de l'infini: Lumen, histoire d'une âme; Histoire d'une comète; La Vie universelle et éternelle*. Paris: Marpon et Flammarion, 1892.
- Garnier, Charles, ed. *Voyages imaginaires, songes, visions, et romans cabalistiques*. 36 vols. Amsterdam & Paris: Garnier, 1787-9.
- Gaspar, Enrique. *El Anachronópete*. Barcelona: Daniel Cortezo, 1887.
- Goethe, J. W. *Faust, ein Fragment*. Leipzig: Georg Joachim Göschen, 1790.
- Griffith, George. *The Angel of the Revolution*. *Pearson's Weekly* 21 January-14 October 1893; reprinted in abridged form, London: Tower, 1893.
- Hawthorne, Nathaniel. "Rappaccini's Daughter". *United States Magazine and Democratic Review*, December 1844; reprinted in *Mosses from an Old Manse*, New York: Wiley & Putnam, 1846.
- Hinton, C. H. *Scientific Romances*. London: Swan Sonnenschein, 1886.
- Hoffmann, E.T.A. "Der Sandmann." *Die Nachtstücke*. Berlin: Realschulbuchhandlung, 1817.
- Hunt, Robert. *Panthea, the Spirit of Nature*. London: Reeve, Bentham & Reeve, 1849.
- *The Poetry of Science, or Studies of the Physical Phenomena of Nature*. London: Reeve, Bentham & Reeve, 1848.
- Kepler, John. *Joh. Kepler Mathematici Olim Imperatorii. Somnium se opus posthumus de astronomia lunare*. Frankfurt, 1634; trans. Everett F. Bleiler as "Somnium: or the Astronomy of the Moon, An Allegory of Science by Johannes Kepler" in *Beyond Time and Space*. Ed. August Derleth, New York: Pellegrini & Cudahy, 1950; tr. & annotated by Edward Rosen, *Kepler's Somnium. The Dream, or Posthumous Work on Lunar Astronomy*, Madison, Wis.: University of Wisconsin Press, 1967.
- Laßwitz, Kurd. *Auf Zwei Planeten*. Leipzig: B. Elischer Nachfolger, 1897; abridged trans. Hans J. Rudnick, *Two Planets. Auf Zwei Planeten*, Carbondale: Southern Illinois UP, 1971.
- *Bilder aus der Zukunft*. Breslau: Schottlaender, 1878.
- Mercier, Louis-Sebastien. *L'an deux mille quatre cent quarante*. Paris, 1771; trans. William Hooper as *Memoirs of the Year Two Thousand Five Hundred*, London: G. Robinson, 1772.
- Méry, Joseph. "Les Lunariens." *Les Nuits parisiennes*. Paris: Michel Lévy, 1855.
- Nodier, Charles. "Hurlubleu." *Revue de Paris*. Août 1833.
- "Leviathan Long." *Revue de Paris*. Novembre 1833.
- Parville, Henri de *Un habitant de la planète Mars*. *Le Pays*. Juin-Juillet 1864 (14 pts). Paris: J. Hetzel, 1865.

- Poe, Edgar Allan. "The Balloon Hoax." *New York Sun* 13 April 1844. Reprinted in *The Works of the Late Edgar Allan Poe*. New York: J. S. Redfield. 4 Vols. 1850-56.
- "The Conversation of Eiros and Charmion." *Burton's Gentleman's Magazine* December 1839; reprinted in *Tales of the Grotesque and Arabesque*, Philadelphia: Lea & Blanchard, 1840.
- *Eureka, a prose poem*. New York: G. P. Putnam, 1848
- "Hans Phaál." *Southern Literary Messenger* June 1835; revised as "The Unparalleled Adventure of One Hans Pfaal." Reprinted in *The Works of the Late Edgar Allan Poe*, New York: J. S. Redfield. 4 Vols. 1850-56.
- "Mesmeric Revelation". *Columbian Lady's and Gentleman's Magazine*, August 1944; reprinted in *Tales by Edgar Allan Poe*, New York: Wiley & Putnam, 1845.
- Robida, Albert. *La Guerre en la vingtième siècle. La Caricature*. 1883; rev. Paris: Librairie Illustrée, 1887.
- *Le Vingtième siècle*. Paris: G. Decaux 1882-3.
- Rosny, J. H. aîné. "Un Autre monde." *Revue de Paris*, 1 septembre 1895.
- "Les Xipéhuz." *L'Immolation*. Paris: Albert Savine 1887.
- Shelley, Mary, *Frankenstein; or, The Modern Prometheus*. London: Lackington, Hughes, Harding, Mayor & Jones, 1818.
- Souvestre, Émile. *Le Monde tel qu'il sera*. Paris, Coquebert, 1846.
- Swift, Jonathan. *Travels into Several Remote Nations of the World in Four Parts by Lemuel Gulliver, first a Surgeon, and then a Captain of Several Ships*. London: Benjamin Motte, 1726. [Usually reprinted as *Gulliver's Travels*.]
- Tiphaigne de la Roche, Charles-François, as "L'A de P***." *Amilec*. Paris: Michel Lambert, 1753.
- Verne, Jules. *De la terre à la lune*. Paris: Hetzel, 1865; trans. as *From the Earth to the Moon. Passage Direct in 97 Hours*, Newark NJ: Newark Printing & Publishing Co, 1869.
- *Vingt mille lieues sous les mers*, Paris: Hetzel, 1870; trans. as *Twenty Thousand Leagues Under the Sea*, London: Sampson Low, Marston, Searle and Rivington, 1873 [actually 1872].
- *Voyage au centre de la terre*. Paris: Hetzel, 1863; trans. as *A Journey to the Centre of the Earth*. London: Griffith and Farran, 1872.
- Voltaire, *Le Micromégas de mr. de Voltaire*. Londres (so advertised, but probably Berlin), 1752; trans. as *Micromegas, A Comic Romance. Being a Severe Satire upon the Philosophy, Ignorance, and Self-Conceit of Mankind*, London: Wilson & Durham, 1753.
- Voss, Julius von. *Ini*. Berlin: KF Amelang, 1810.
- Wells, H. G. "The Chronic Argonauts". *Science Schools Journal* 1888; revised and expanded as a series of seven separately-titled episodes, *National Observer* 17 March-23 June 1984; further revised as "The Time Machine", *New Review* January-May 1895; abridged as *The Time Machine: an Invention*, London: Heinemann, 1895.
- *The First Men in the Moon*. London: Newnes, 1901.
- *The Invisible Man. A Grotesque Romance*. London: Pearsons, 1897.
- *The Island of Doctor Moreau. A Possibility*. London: Heinemann, 1896.
- *The War of the Worlds*. London: Heinemann, 1898.
- Wilson, William. *A Little Earnest Book Upon a Great Old Subject*. London: Darton, 1851.

Paul K. Alkon. Paul Alkon analyzes several key works that mark the most significant phases in the early evolution of science fiction, including *Frankenstein*, *Twenty Thousand Leagues Under the Sea*, *A Connecticut Yankee in King Arthur's Court* and *The Time Machine*. He places the work in context and discusses the genre and its relation to other kinds of literature. The Science Fiction Before 1900 3 most notable example is Voltaire's *Micromégas* (1752), which brought visitors to Earth from Sirius and Saturn in order to laugh at human narcissism. Tiphaigne de la Roche's *Amilec* (1753) was a bold attempt to include an earnest theory of reproduction and embryology within a broader satirical account of the transmission of life throughout the universe by spores; unfortunately, working without the aid of powerful microscopes, Tiphaigne lacked essential data regarding the process of reproduction, and his theory turned out to be wrong. A problem of dirigible Science Fiction Before 1900 7 aeronautics before his ill-treatment by fate and his fellows eventually prompts him to bid farewell to the Earth forever. The year 1900 was marked, in science fiction, by the following events. April 1 : (in French) Fernand Françoise, French writer (d. 1991). May 22 : Wallace West, American writer (d. 1980). The main science-fiction Awards known at the present time did not exist at this time. (in French) *Coppelia : La Poupée animée*, by Georges Méliès. *Going to Bed Under Difficulties* (in French : *Le Déshabillage impossible*), by Georges Méliès. 1900 in science. 1901 in science fiction.