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Anthropology as Science Fiction, or How Print Capitalism Enchanted Victorian Science

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In a political and commercial environment, where people make political reputations by fake news and by questioning the authority of scientific claims to fact, it may be a good idea to turn to history to try and understand the cultural roots of the attitudes that foster such structures of feeling. One of the most striking and earliest events of producing fake news in modern history is Orson Welles' "Halloween special" broadcast on 30 October 1938, in which he made a fake documentary out of H.G. Wells' pioneer science-fiction novel, *The War of the Worlds* (Wells 1997 [1912]). Welles relocated Wells' story about an attack on Earth by Martian war machines—thwarted by the extraterrestrial colonizers succumbing to an earthly virus—from England to contemporary New Jersey. The mockumentary's realism—neither the first nor the last in its genre—created a widespread panic among American radio listeners and made Welles famous overnight. The event shows that science fiction could puncture the sociocultural membrane between commercial fiction and political or economic fact—even at a time when people's faith

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in modernity's commitment to scientific factuality was at a peak, as demonstrated by the displays of next year's New York World's Fair. Can we, perhaps, understand current doubts about science and factuality, and the making of fake news, from thinking about the ways in which science fiction enchanted modern people with the magic of science? This chapter aims to contribute to such an effort by a reflection on the cultural constitution of science through fiction by going back to some of the roots of science fiction. The genre emerged in a period when the modernist technological optimism of its twentieth-century futuristic fantasies (such as those that drew Isaac Asimov to science fiction and the New York World's Fair: Asimov 1979) had yet to materialize. Victorian science fiction had a decidedly self-questioning and even paranoid side to it, and may therefore shed light on the similarly pessimistic and paranoid, but far more nostalgic sentiments that seem to characterize some of the right-wing and socialist fantasies that inform present-day politics. It can certainly tell us something about the ways in which capitalism and science—often regarded by economists and politicians as twin sources of enlightenment—can combine to generate magic instead.

If one takes an etymological approach to science fiction—as a practice based on the fictionalization of science—it quickly becomes clear that James Frazer's original intuition of a special affinity between science and magic vis-á-vis religion is both an accurate description and a symptom of the place of magic in nineteenth-century capitalism. This has little to do with Frazer's own theoretical inclinations: his rationalist and evolutionist views were often a distorted reflection of what was going on in Victorian culture in his own time. Retrospectively, social evolutionism can be classified, at least since Herbert Spencer and Lewis Henry Morgan tried to define it by human moral progress, as one of the more outstanding forms of colonialist fiction in Victorian science.[1] It was, however, not the kind of science fiction that sold well in cosmopolitan markets, the magic of which became a driving force behind the new bestselling industry of the mystery novel. Capitalism was better served by another, more popular, anthropology, an anthropology that the disciplinary history of ideas, learned societies, museums, and academic institutions tends to either overlook or banish to the margins. This subaltern but culturally vital magical current militated against

central hierarchies of Victorian values; it almost invites the label "postmodern" in the ways it mixed high and low culture, and it can be seen to eat at the heart of high modern science and its social ideals. This commercialized version of anthropological and ethnographic mystery, put on the market by authors like Edward Bulwer-Lytton, Henry Rider Haggard, and Arthur Conan Doyle, was highly ambivalent about civilization and often staged atavistic powers of other "races" in a way that threatened scientific and moral progress.[2] It anticipates the pessimism about humanity's position at the apex of civilization that was also exemplified by Wells' novella and Welles' "fake news" in 1912 and 1938, respectively.

In order to understand this relatively understudied phenomenon, one needs to rethink the cultural and social location of science fiction and its history and the place of magic in modernity—a place that, I would argue, raises magic to an eccentric but nevertheless decisive category of modern capitalist self-understanding (largely because the category was reinvented by Protestantism and nineteenth-century secular anthropology). It is only after a detour through the anthropology of science fiction and modern magic, therefore, that I can address the question of how and why science was fictionalized for the first time in a way that makes it recognizably modern (starting with the publication of Mary Shelley's *Frankenstein* in 1818) and can explore why that shift only gathered momentum when fictionalization of the sciences of geography and anthropology began in the early 1870s (at the same time that anthropology was professionalized as a science). Science fiction has until recently been stereotypically portrayed as a celebration (or depreciation) of futuristic technology, not least by some of its major practitioners. This obscures the fact that it was always intensely preoccupied with the largely non-technological "anthropology" of psychic powers and altered states of mind (Pels 2013). Finding such magic—which I regard as quintessentially modern—at the heart of scientific fantasies will help us better understand why, especially after science fiction and fantasy conquered mainstream Western culture cinematically in the late 1970s and early 1980s (by *Carrie*, *Star Wars*, *Alien*, *Stalker*, and *Blade Runner*, among other films), spectacular capitalism provides such a comfortable home for the enchanted reason of both magic and science fiction.

Why Do an Anthropology of Science Fiction?

Sociocultural anthropologists rarely studied science fiction, although a minority treated it as a privileged window on the future and "cultures beyond earth".[3] This is to be regretted: science fiction is probably one of the better ways to study the cultural patterns of modernity and its imaginative forms, precisely because of sci-fi's location in capitalist commerce—initially in literary form, but always supported by commercial spectacle, and more recently overshadowed by cinema and digital gaming. Only recently have anthropologists discovered this resource for the study of the modern imagination, partly inspired by cultural studies (see Battaglia 2005; Rosenberg and Harding 2005). They are discovering new questions on the way: apparently, secular conceptions of space can once more be sacralized by science fiction's explorations of the infinite (Pels 2013), and such fictions, in the form of Ufology, for example, can turn into new social movements (Roth 2005)—and even literally become a question of life and death, as in the multiple suicides of the Heaven's Gate sect (Harding 2005). Because of this "real-time" connection to the cultural construction of worlds that modern people live in, anthropologists raise different questions about science fiction. Cultural or literary studies have tended to focus on the utopian or dystopian novelties of science fiction, to some extent stimulated by the fact that cultural studies and cyberpunk science fiction seemed to reinforce each other's status as critical harbingers of a new age (see, for a representative example, Ross 1991). In contrast, anthropological perspectives should be wary of the risk that announcing such temporal breaks may also reify them (or sometimes call them into being). While not denying that things change, anthropologists first tend to contextualize futuristic discourse in a cultural *longue durée*, since such discourses tend to replicate a form of epochal thinking of which technophiles are particularly fond, and that may obscure, rather than clarify, the sociocultural transitions they try to describe (Tsing 2000: 332–323; Pels 2015). An anthropology of science fiction should acknowledge that 1980s cyberpunk changed the style of science fiction by bringing technology close, even into the body, and by divorcing itself from the techno-sublime fantasies of progress of the "Golden Age" of science

fiction, and even the pessimism of the "New Wave" of the 1960s: cyberpunk emphasized digital and nanotechnology as invading minds and bodies at a micro-scale, in stark contrast to the large-scale "Hoover Dam" technology of the Space and Atomic Age—as cyberpunk writers themselves argued (see Sterling 1986). But just as the techno-sublime Space Opera continued to appear next to cyberpunk "post-humanism", similarly the "Golden Age" of sci-fi was only supposedly dominated by the technological sublime: it was as obsessed with "post-human" bodily mutation and the magic of psychic powers as cyberpunk novelists have been since the 1980s (Pels 2013). The process by which science fiction divorced itself from the techno-scientific fantasies of the culture of modernization that dominated the immediate post-1945 period is therefore often misrepresented by indigenous histories. Some Golden Age science-fiction writers identified themselves as one of the last public bastions of critique and free speech (Theodore Sturgeon, cited approvingly by Isaac Asimov [1979: 650])—a fantasy that was, like Jürgen Habermas (1989), critical of, yet derived from, modernization theory's conceit of a political development toward transparency. The fantasy is echoed by a "party of utopia" of literary critics who celebrate sci-fi's potential for imagining the new (Jameson 2005: v; Suvin 1979). Anthropologists are, like good historians, at least equally interested in the extent to which sci-fi can exploit the xenophobic underbelly, the ethnocentric superhero fantasies, or the attractions of apocalypse and disaster, not least because they can be cultivated by commerce for a profit. Indeed, anthropologists may be less comfortable with defining science fiction in terms of the scientific "novum" it experiments with (as Darko Suvin did [1979]) than with Kingsley Amis' definition of science fiction in terms of "new maps of hell" (Amis 1960). Pessimism and optimism can be equally commodified; there is no utopian critique inherent to the sale of either romance or catastrophe.

One defect of the ways in which anthropologists have paid attention to science fiction so far should be mentioned, however: the fact that they have neglected cultural diversity to the extent that they have not yet sufficiently interrogated science fiction beyond its hegemonic cultural setting in the Anglophone North Atlantic. Anthropologists tend to not only bypass some of the more salient differences between writers or moviemakers within the Anglophone world but also pay less attention to some

of the more important developments of science fiction on the European continent (especially those emerging from Soviet times), Japan, and more recently, Southeast Asia, China, and Africa (in the form of Afro-futurism). This is not simply a call for cultural relativism: it is, more importantly, a plea for a comparative effort, by which the exploration of such cultural differences may also answer questions such as why has the Anglophone North Atlantic been such a dominant breeding ground of this genre, or why, quite remarkably, two island societies, Britain and Japan, have both produced outstanding science-fiction narratives that define a fatal threat to civilization to come from the sea (compare, for example, Komatsu 1995 to Wyndham 1951 or 1955). Such cultural comparisons may also help to explain why my chapter privileges British perspectives on science fiction that are less optimistic—such as those that are voiced by Kingsley Amis and Brian Aldiss and epitomized by H.G. Wells' alien war machines and mad scientists—than the faith in science fiction's voice for progress that North Americans seem to have inherited from Jules Verne.

Against such a background, what anthropologists want from a definition of science fiction is that it makes social and cultural sense without having to fall back on modernist techno-optimism. Whereas the definition of science fiction, by practitioners as well as scholars, is notoriously elusive, the observation that science fiction is whatever we say it is (by, among others, science fiction writers like Damon Knight and Norman Spinrad) loses much of its apparent triviality once we start by acknowledging that science fiction "certainly [is] a publishing category" (Stableford et al. 1993: 314). Regardless of its content, writers and publishers have practical use for the label in the social world of print capitalism (Anderson 1983: 47–48). The question how, when, why, and for whom science is fictionalized then mutates into the question how, when, why, and for whom science becomes culturalized as a commodified spectacle—as a packaged imaginary and narrative that sells wonder, excitement, awe, horror, or a temporary escape (and this applies to sales of sci-fi in other media too). The only "hard" condition for such fictionalizations of science is that they make a profit, but that condition only posits an "empty future", in the sense that the quantity of profit does not determine the quality or content of the commodity or spectacle by which it is earned (Pels 2015: 785).[4] In a cultural analysis, this allows us to distinguish science fiction

from other forms of the future that determine modern lives: unlike all forms of modern policy that aim to "develop" something, it does not require maintaining a "future positive" that makes the present imperfect (Mosse 2004: 640); unlike macroeconomics, it does not render the present abstract by invoking the mathematical fantasy of a future market equilibrium (Maurer 2002; Mitchell 2014); unlike the legal contract, it does not need the magical conceit that we actually control the exchange that we agreed upon (Westbrook 2016). Interestingly, science fiction may, at least in our current paranoid times, resemble the Christian fundamentalist's apocalypse, for even its secular fantasies can be used to reject the neighbors as unbelievers (Stewart and Harding 1999; Crapanzano 2007).

Science Fiction as Modern Magic

If, even after the caveats listed above, one still wants to define science fiction by the content of its future expectations, one may be more successful by turning to the "not quite real" realm of magic and witchcraft—where "magic" points to the miraculous satisfaction of desire, and "witchcraft" to the paranoia that comes with anticipating misfortune. This, however, implies that we recognize that these terms should not be reified (they cover a huge and contradictory terrain including occultism, spirit possession, enchantment, fetishism, shamanism, and other terms used to write such phenomena off as non-modern: see Pels 2003). More importantly, we should move away from the classical anthropological understanding of magic and witchcraft as timeless "beliefs", since they situate them historically as "other" ways of thinking, incomprehensible from and incommensurable with modern points of view. Instead, Evans-Pritchard's snippet of insight into a young Zande boy's mind, when the latter said that stubbing his toe while running home was "witchcraft" because it runs counter to a future the boy had routinely come to expect (1976 [1935]: 20), reminds us of the fact that we, too, can make "occult" or paranoid versions of anything that frustrates our common expectations—that much, at least, is not culturally peculiar. Moreover, sci-fi teems with instances of a "substance X" that is at least as weird as the witchcraft

substance that Evans-Pritchard identified among Azande (see, for an early science-fictional "substance X", Smith 1958 [1928]: 5).

Situating magic in the context of modernity, however, requires more explanation, since modern rationalism and secularism denies it has a place in it. Elsewhere I argued that the concept of magic should be primarily understood as modernity's antithesis, as a way of telling ourselves that this is *not* who we are. Many modern people like to think they do not believe in or practice magic or can be bewitched, if that is understood as expecting or experiencing efficacious action at a distance by mimesis, psychic powers, or the animation of dead matter. However, this raises a paradox: modern people also often deplore the extent to which their own society produces precisely such expectations, so that modernity can be seen to produce its own magic, in diverse forms of paranoia, fetishism, charisma, or the mimetic *mana* of "representation" (see Pels 2003: 17–29). The paradox is perfectly conveyed by James Frazer's work: Frazer not only portrayed magic as modernity's antithesis in terms of the twin (and, according to him, fallacious) ideas of magic working through homeopathic and contagious connections, his work also inspired some of the more influential reinventions of magic in modernity (such as the Order of the Golden Dawn; or Gerald Gardner's Wicca: Pels 2003: 308n8). Frazer both took up and disseminated a newly psychologized sense of magic (even using metaphors, such as "ether" that were cultivated by the rising tide of theosophy, occultism, and psychic research), but whereas he regarded it as essentially a malfunctioning subjectivity, the cultural movements that his modern magic inspired—among occultists as well as artists—rather saw it as a kind of super-functional subjectivity (Pels 2003: 31; Wilson 2013).

As a result of insisting on magic as the workings of the psyche, the occultists from whom Frazer got some of his ideas (such as Bulwer Lytton and his admirer, Madame Blavatsky), Frazer himself, and the occultists whom he stimulated with his examples, have emphasized the evolution of the mind, and caused anthropology to neglect the *material* practices of modern magic (but see Pels 2010; Jones 2011; Lears 1994: 40–74). The cover photograph of *Magic and Modernity* (Meyer and Pels 2003) (Fig. 10.1) shows that this attention to the material mediation
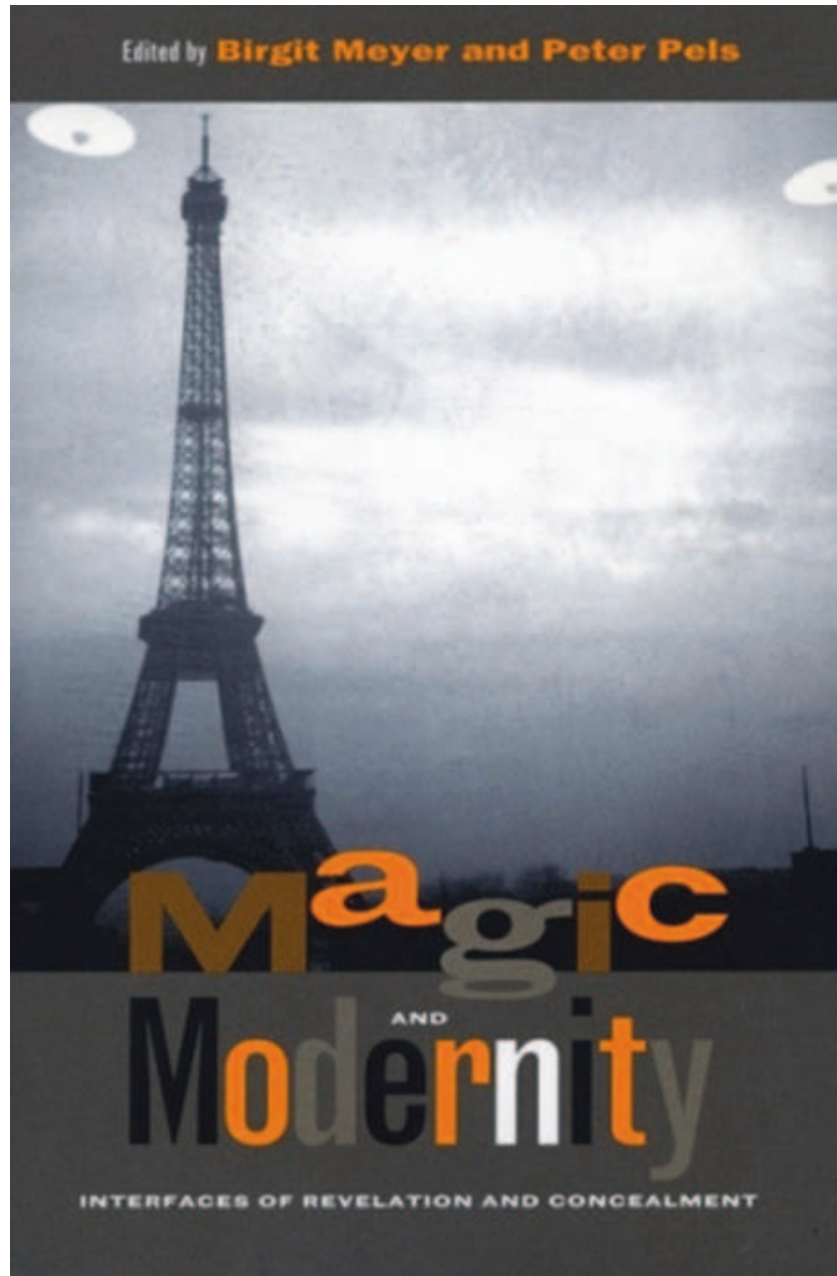
Fig. 10.1 UFOs passing the Eiffel Tower (cover image of Meyer and Pels [2003])

of modern magic may connect it to science fiction: the photograph of UFOs passing the Eiffel Tower perfectly conveys the modern conundrum of making cultural sense of technology in a modern world—an activity that inevitably calls up magical action. This remains true even when we acknowledge the possibility of a trick—that is, of a photograph of two "floating" *plafonnières* taken through a reflecting window—because it portrays magical action as involving fraud and *légerdemain*, in a trope typical of modern discourse on magic. In any

case, the Eiffel Tower itself remains as a reminder of the ritual magic Europeans wanted to generate by the technological sublime (as usually expressed in World's Fairs).

Vivian Sobchak, in her influential analysis of science-fiction cinema, makes the point that science fiction, if it had to be defined, should be classified as a hybrid genre consisting of slippages from magic to science to religion (1987: 63). Indeed, a focus on the material practice of film brings out that it has been interpreted as enchanting modern life from the very invention of cinema onwards (Moore 2004).[5] Although the topic deserves a much longer analysis, this culturalization of the materials of science and technology is maybe best represented by the vignette I used in an earlier publication: the scene in Alfred Bester's brilliant *The Stars My Destination* (1996 [1956]) in which the main protagonist Gully Foyle, after psychically teleporting himself through space for the first time, ends up in the hands of "the Scientific People", an isolated group in a remote backwater of the galaxy. Foyle's potential as a "naturally selected" mate to one of the group's women gives rise to a ritual, in which his face is tattooed as a sign of membership, while the group recites the exact measures of several ingredients in a chemical formula, ending with triumphant shouts of "Quant Suff! Quant Suff!" ("quantity sufficient"; Bester 1996 [1956]: 28–29; see Pels 2013 and Fig. 10.2).

The culturalization of both biology and chemistry into ritual—a feature of everyday life that we all have encountered at one time or other, if only in the form of placebos—is conjoined in *The Stars My Destination* with teleportation in a perfect example of how science fiction constructs the magic of modernity.

Fictionalizing Romantic Science

These reflections on the definition of science fiction and the modernity of magic lead (with the help of Brian Aldiss) to an anthropological perspective on science fiction and its cultural origins. Rather than looking—as many histories of science fiction do—for remote and respectable intellectual ancestors in Plato's *Republic* or *Gulliver's Travels*, or reaffirming the techno-scientific focus that is often associated with Hugo Gernsback's invention of the earlier term "scientifiction" in 1926, the anthropological
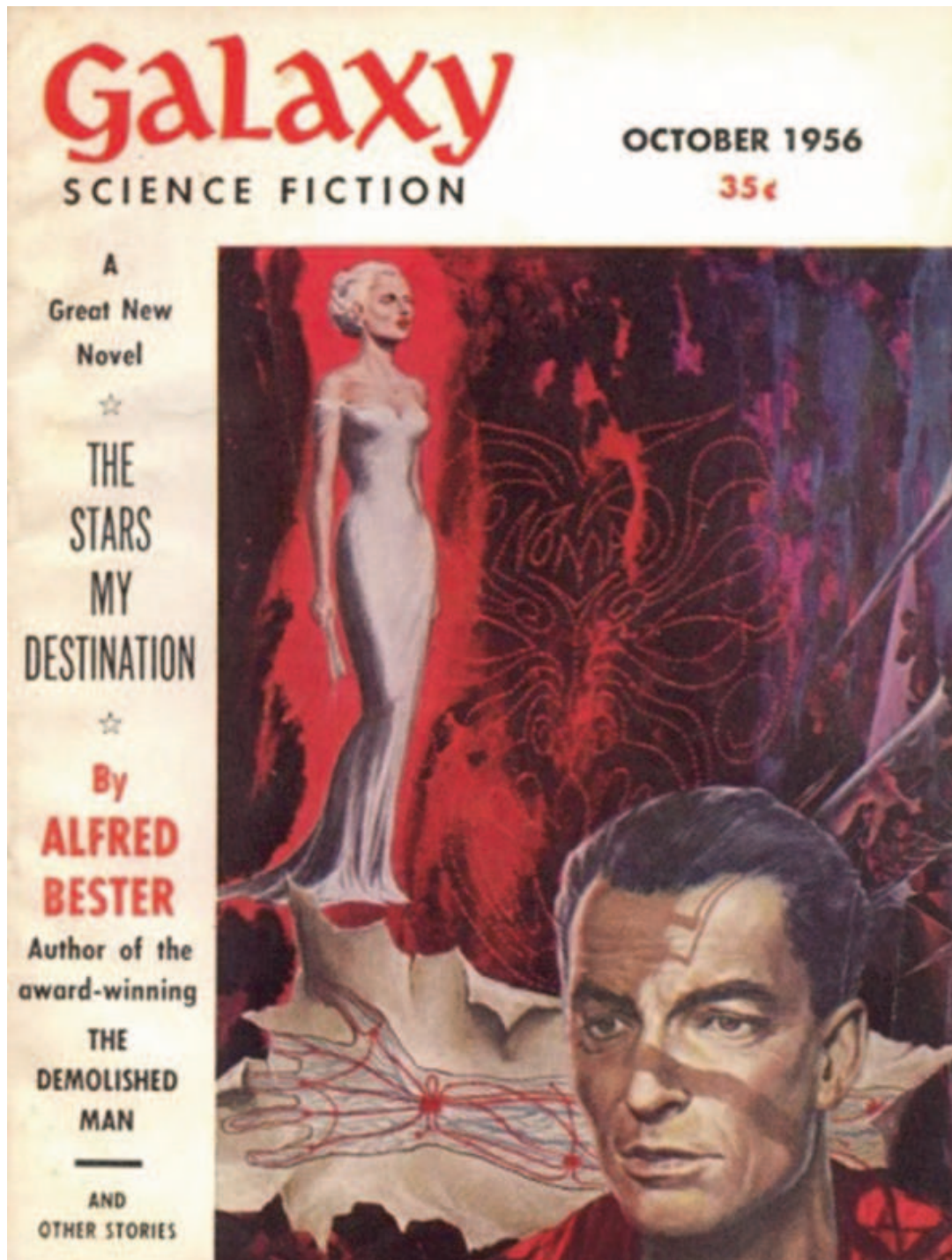
Fig. 10.2 The 1956 cover of *Galaxy Science Fiction*, containing the original version of Alfred Bester's *The Stars My Destination*

focus on cultural transformation should lead us to ask when and how, and, not least, *which* science was fictionalized (cf. Stableford et al. 1993). If, indeed, science fiction sacralizes the objects of secular scientific attention (Pels 2013), it cannot emerge unless science and the secular have

become culturally salient; and it can only unfold in full when their disenchantment with humanity, nature, and history is translated into commercial fiction (for this tripartite conception of the secular, see Asad 2003: 192). This does not happen until, in the words of Brian Aldiss, people start searching "for a definition of man and his status in the universe which will stand in our advanced but confused state of knowledge (science)", when it is romantically "cast in the Gothic or post-Gothic mould" (1973: 8). Aldiss' insight is profound, because he defines "science" as a search—as a *desire* for certainty amidst cultural confusion about humanity's place in nature, a confusion that historically appears only after the Christian God absconds from the everyday control of nature and humanity faces the question of how it can manage in His stead in the future. (One cannot, therefore, understand science fiction without taking religion into account.)

This particular *cultural* pattern was first connected to the circuits of print capitalism by Mary Shelley's *Frankenstein* (1818). *Frankenstein, or the Modern Prometheus* was written and published in the same years that her atheist husband Percy Bryce Shelley wrote *Prometheus Unbound*, which sets its human protagonist free after the supreme deity, Jupiter, is dethroned. Frankenstein is a new Faust, a true contemporary of the fictional character continually recreated by Goethe between the 1770s and 1830s. Unlike the seventeenth-century magus Dr. Faustus, who dealt with the devil, or Goethe's Faust, who faced the social destruction that his designs to improve humanity brought with them (Berman 1983: 37ff.), Frankenstein wrestled with the doubt whether his intervention in nature—this is the height of the industrial revolution!—is evil (Aldiss 1973: 26). Significantly, Aldiss identifies the science being fictionalized by both Shelleys as inspired by the work of Erasmus Darwin, the true inventor of evolutionary thought. Grandfather of the man who was eventually credited with this innovation, Darwin took part in a much larger secularizing movement of scientists and capitalists, best represented by the Lunar Society of Birmingham. It included inventors like James Watt and philosophers like Joseph Priestley, some of Darwin's greatest friends being the pioneer entrepreneurs Matthew Boulton and Josiah Wedgwood, and its members waxed lyrical about the discovery of infinite space (and the resulting confusion about extraterrestrial life) by their contemporary William Herschel's telescopes, and of the discovery of the

possibility of infinite time (and the resulting doubts about Biblical authority) called up by John Whitehurst's geological fieldwork in the nearby Peak District (Uglow 2002). Theirs was a science whose secularism disrupted Christian time and space to such an extent that it called for ways to come to terms with the doubts it generated—although this coming to terms mostly had to take place in private, given the public dominance of a religiously inclined aristocracy and clergy. The fictionalization of such perspectives started before the cultural routines of capitalist commerce kicked in—in fact, the likes of Boulton and Wedgwood were in the business of experimenting with capitalist routines in such a way as to bring them into being. Erasmus Darwin's biological poetry led the way for this generation of romantics who, inspired by Rousseau's humanism, Edmund Burke's sublime nature, and Goethe's approach to nature, did not yet divorce art from science. They found "wonder" (a kind of preternatural miracle, already secularized since Francis Bacon) in the proto-anthropology of Joseph Banks, the extraterrestrial life of father and son Herschel, the secularized alchemy of Humphrey Davy, and the orientalism of William Jones (Holmes 2008).

Romanticism may have given science fiction a Gothic aura, but in Shelley's version, *confusion about science* overwhelms its mystery and turns it into horror. Shelley portrays Frankenstein's creature as a kind of noble savage or *tabula rasa*—clear echoes of Rousseau here, but also of Banks and his ethnography of innocent Tahitians—who, in a secular version of the Fall, becomes a monster because the morbid and immoral desires of his human creator have put (in the earlier words of Erasmus Darwin) "writhing Mania […] on Reason's throne" (quoted by Aldiss 1973: 30). In the frontispiece to the original 1818 edition, we see the "monster"—a handsome creature quite unlike the cinematic horror popularized in 1931 by actor Boris Karloff—come awake in surprise, and Frankenstein fleeing from his inability to guide what his science has just brought into being (see Fig. 10.3): the practice of secular scientific creation running up against its moral limitations.

Aldiss calls this "the first great myth of the industrial age" (1973: 23). It was not immediately popular at the time of its publication in 1818 but gained in public estimation in the next decades, not least through its theatrical versions. The moment of its first publication, however, marks
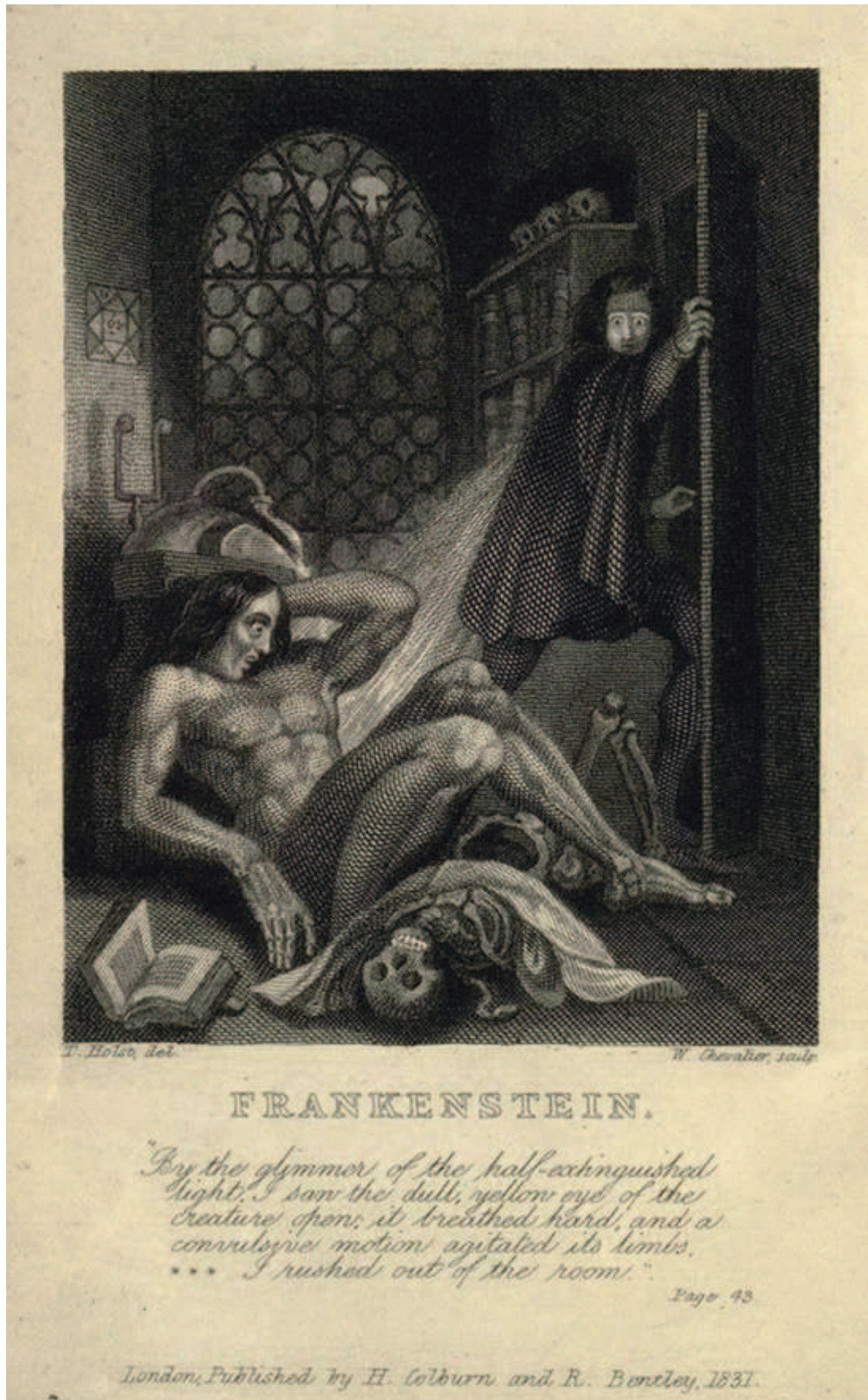
Fig. 10.3 Frontispiece of the original 1818 edition of *Frankenstein*, showing the confusion and innocence of the "monster" before it turns evil, and Frankenstein's horror at his own creation

the point where the definition of science fiction's *social* nature (as a publishing genre—the Gothic novel—within the landscape of print capitalism) and the definition of its *cultural* nature (as a sacralization of secular science—even if it mutated into horror) come recognizably together. This is why I think an anthropology of science fiction should follow Brian Aldiss' lead and start here.

Anthropology Fictionalized

The conjuncture of confusion about the human place in nature and its commercialization by print capitalism did not become a profitable concern until the second half of the nineteenth century. Compared to present-day classifications, the genres that were included in the Gothic novel and that evolved into the "mystery" novels of the second half of the nineteenth century were themselves confused—or, at least, not well distinguished from each other, as, for example, Edgar Allan Poe's mix of horror, ghost, science fiction, and detective stories testifies. In both Britain and the United States, these genres developed against the background of imperial expansion, frontiers of the so-called discovery, and the need to get acquainted with and rule over people markedly different from the standards of North Atlantic societies. It does not come as a surprise, then, that anthropology became one of the more important sciences fictionalized at the time. As demonstrated by the expedition ethnographies of Joseph Banks and Mungo Park (see Holmes 2008: 1–59, 211–234), the budding science of human difference provoked the question whether "other" people could offer anything that might upset the hierarchy of values that the people of the North Atlantic thought they shared. Anthropology must, in the context of the period, be defined in broad terms, as including philology, archeology, ethnology and folklore, and, not least, scientific racism. Equally important, anthropology at the time should be seen as moving under the canopy of the queen of Victorian sciences: geography.

Three examples may show how anthropology, archeology, and geography were fictionalized in ways that interlocked and overlapped: Edward Bulwer-Lytton's *The Coming Race* (1871), Henry Rider Haggard's *She*

(1996 [1887]), and Arthur Conan Doyle's *The Lost World* (1960 [1912]). All three forged bonds between the high culture of elite scientists, the subterranean doubts they cherished, and the subaltern fantasies such doubts generated—not surprisingly, fantasies about intercourse with other races and genders in, to Victorians, largely tabooed ways. On this basis, they also forged bonds between science and magic on the basis of print capitalism. All three examples demonstrate geographical science fiction, in particular the "lost world" genre, that imagined the unknown in parts of the world that geographic exploration and colonial conquest had nearly, but not quite, managed to abolish: the Himalayas, the interior of Africa, or the inside of the earth. This focus on geographical science (rather than technology) is still clearly present when the momentum of science fiction starts to shift to the United States, since the protagonists of Edgar Rice Burroughs' first two fantasies of 1912 traveled to Africa in an everyday manner (*Tarzan of the Apes* [1959]) or were miraculously transported onto a planet in outer space, respectively (*A Princess of Mars* [1972]).

This geographical imagination was exemplified (at least in the first two examples) by the location of the most powerful magic: while Lytton's *The Last Days of Pompeii* (1834) still centered around an Egyptian sorcerer, his *The Coming Race* (1871) had shifted to an occult Hinduism, especially by borrowing the notion of *vril* (a superior psychic power) from the anthropologist Friedrich Max Müller, the foremost authority on the Vedas in Britain. Lytton was rumored to be a Rosicrucian sorcerer himself and may have been Madame Blavatsky's model for the occult masters who inspired her Theosophical Society in 1875 (Liljegren 1957). Blavatsky copied this geographical move, since she first located Theosophy's magical epicenter in Egyptian magic (as exemplified by the title of her first book, *Isis Unveiled* [1877]), but subsequently preferred the occult whisperings of "Mahatmas", dwelling in the remoter parts of the South Asian subcontinent and the Himalayas in particular (Washington 1993). Finally, Rider Haggard made a similar move much later, when he resituated Ayesha—the Egyptian sorceress found at a remote spot in Southern Africa in *She* (1887)—to the Himalayas in a later novel (*Ayesha*, published 1924 [1978]). All three copied a shift from Egyptian magic to an orientalism farther East that also characterized the visual popular culture of British shows (see Altick 1978).

All three novels draw directly on anthropology for their fictional credibility. Lytton's book is not only dedicated to Friedrich Max Müller and adopts the notion of occult power or *vril* that Müller lifted from his study of the Vedas, it also reproduces the nineteenth-century anthropological focus on race hierarchies, if in a curiously inverted and paranoid way. Its publication date coincides with the subordination of the polygenist notion of race hierarchies to the doctrine of the "psychic unity of mankind" cultivated by leaders of the Anthropological Institute such as Edward Tylor and Thomas Huxley (Stocking 1987: 269–273). Indeed, it is possible to interpret both *The Coming Race* and Blavatsky's *Isis Unveiled* as means to recompose race hierarchies in the margins of Victorian culture after the newly triumphant professionals among anthropological authorities had ruled it out of bounds (for such an interpretation of Blavatsky and Müller, see Pels 2000). The Vril-ya, the "coming race" from Lytton's title, are clearly superior, especially the magnificent Zee, who falls in love with the book's male and very ordinary human protagonist after he falls down into the hollow earth and discovers their abode. They can fly and possess telepathic and telekinetic powers (*vril*) that put the story's narrator in such awe that he is afraid they will conquer humanity should they ever rise up and reach the earth's surface (see Fig. 10.4).

A similar mental or psychic hierarchy of races forms the core of Blavatsky's Theosophy (and of much twentieth-century Ufology inspired by her: Roth 2005) and predicts, indeed, that a superior race of psychic masters will succeed humanity in its mental evolution. Blavatsky's Theosophy was one of the ways in which the polygenist hierarchy of races retreated from public anthropology into an "occult" circuit (Pels 2000). However, the fact that Lytton put forward Zee as a powerful woman who almost awes her male counterpart into impotence suggests that these scientific fantasies put not only race hierarchies under negotiation but gender hierarchies as well, and at the same time. Decades before the official emergence of the suffragette movement, it was only in spiritual movements with a homegrown anthropology like Spiritualism and Theosophy that women could grasp opportunities under Victorian rule to speak out in public and lead an organization (Braude 1989). Existing doubts about race and gender hierarchies—hierarchies that ethnographies about noble savages had questioned in Joseph Bank's time, and anthropological speculations about

Fig. 10.4 A version of John Martin, *Pandemonium* (ca. 1825), originally meant to illustrate a scene in which devils build Hell in Milton's *Paradise Lost*. This painter's architecture is compared to that of the Vril-ya in Lytton's *The Coming Race*, and this version of the painting adorns the cover of a late twentieth-century edition of the book

kinship and matriarchy around the 1850s—could thereby become the raw material from which a novel like *The Coming Race* could be composed.

Likewise, Henry Rider Haggard's first bestseller, *King Solomon's Mines* (1885), was not only based on his own ethnographic experiences in South Africa, but must also be one of the first books in Victorian times which features a cross-racial romance (between Captain Good and Foulata). Centered (among other things) on the witch-hunt of the hag Gagool, it also brings Haggard's experiences with South African healing into European fantasy. But it was Haggard's second bestseller, *She* (1887)—the book breaking all the sales records in print capitalism that *King Solomon's Mines* had established two years earlier—that provided even our age with an archetypal image of a powerful woman. "She-who-must-be-obeyed" is Ayesha, an Egyptian sorceress who rejuvenated herself over

Fig. 10.5 Frontispiece and title page of the first edition of *She*. They show the sherd of Amenartas and its inscription that lead scholar Horace Holly and his ward Leo Vincey to their voyage of discovery in Africa

two millennia by means of a magical fire located in a remote mountain area of Southern Africa. She is found by the archeologist Horace Holly and his ward Leo Vincey, when the former feels obliged to accompany the latter on a voyage of discovery after Vincey comes to him with a potsherd that was excavated by Vincey's deceased father. The archeological science fiction of this book is rendered particularly realistic by a minute description of the potsherd's measurements (Haggard 1982 [1887]: xxxx–i; see Fig. 10.5)

Again, the connections to anthropology are multiple: not just the archeology of the potsherd and its inscription but also Haggard's own ethnographic experiences as the personal assistant of Theophile Shepstone, the Native Commissioner of Natal (see Pels 1998: 196), now symbolized by

the "Amahagger"—the name a peculiar combination of a Zulu prefix and Haggard's surname—the people ruled by the imperial imagination of a gorgeously rejuvenated Isis in remote Africa, that she now promises to mobilize for her new love, Leo Vincey, to conquer Britain. Note that in both cases (*The Coming Race* as well as *She*) the threat to overturn civilization by a different race upsets Victorian gender hierarchies as well. Maybe this expresses the common finding in Africa—or perhaps worldwide—that magic seems the more powerful the more remote its (social) provenance.

The Lost World, Arthur Conan Doyle's adventure story starring the unforgettable Professor Challenger, is less preoccupied with gender hierarchies than the previous two science-fiction novels, but it, too, was directly inspired by a colonial anthropologist-cum-explorer: Everard Im Thurn, whose expedition to the remote Roirama Plateau raised extraordinary expectations among the British public. Im Thurn organized the expedition to the mountain plateau on the border with Venezuela after he had been appointed director of the museum in Georgetown, British Guiana, by Joseph Hooker, the influential director of Kew Gardens, and earned recognition among anthropologists by the publication of *Among the Indians of Guiana* in 1883. He would build his reputation as an anthropologist further while governing Ceylon and Fiji and he became President of the Anthropological Section of the British Association for the Advancement of Science in 1914 and of the Royal Anthropological Institute in 1919. Well before Steven Spielberg turned similar fantasies into the visual magic of Jurassic Park's post-modern genetics, the expedition to Roirama, on the border of Guyana and Venezuela, raised expectations of the discovery of missing racial connections by "primitive life forms"—both zoological and in terms of the (humanoid) "missing link"—in the British press, and Im Thurn shrewdly cultivated the expectation that such evolutionary survivals would be found since it helped to raise funds for the expedition (Dalziell 2007: 99). The "missing link" was an especially powerful image because finding a race between ape and human promised to hammer a last nail in the coffin of a creationist view of the origin of species. Conan Doyle did little more than fictionalize and sensationalize Im Thurn's findings upon hearing him lecture after the expedition's return, although Doyle's addition of a full-blown war between primitive humans and evolved apes and, most importantly, living dinosaurs to the mix of survivals Professor

Fig. 10.6 Advertising poster for the first (1925) film version of Conan Doyle's *The Lost World* by Harry Hoyt. Early film was overwhelmingly devoted to magic and science fiction, as the predominance of film versions of *She* and *King Solomon's Mines* shows (Leibfried 2000)

Challenger encountered was surely one reason why *The Lost World* (published in 1912) was turned into blockbuster cinema already in 1925 (Fig. 10.6). It has continued to do so in Spielberg's *Jurassic Park* and *The Lost World* in the 1990s, although the anchoring in anthropology was lost in the process of turning from evolutionary racism to a more subtle racial metaphor in genetic technology.

Conclusion

The Lost World illustrates the cultural secret behind the magic of print capitalism in the way Doyle materialized, in a commercial circuit, the desires for science cherished by a British public at the time. Anthropology, when fictionalized, could fulfill those needs, maybe just because those

desires by no means implied merely positive satisfactions. Aldiss' brilliant idea that, in a cultural sense, science is more about *confusion* that anything else—should I, as a mere human being want this power for creation and development? If I satisfy my desires, will they not turn into evil?—is perfectly illustrated by Lytton and Haggard's suggestion of a racial and gender superiority that male Protestantism can only barely keep at bay. The fascination is magical, with perhaps the only difference between this commercial magic and the "skilled revelation" and "skilled concealment" of a shaman being that there is often no real risk or a patient's health at stake (Taussig 2003). This kind of magical spectacle—you pay for it, but it does not threaten you with pain or physical transformation –was generalized by the experience of cinema, as contemporary theoreticians of film repeatedly argued (Moore 2004).

However, the preceding examples show, just as Orson Welles' mockumentary in 1938 and the Heaven's Gate sect multiple suicide in March 1997, that no medium—regardless of whether it delivers the message by print, radio, cinema, or the digital—can guarantee that the membrane between fiction and fact remains impermeable. I propose that this cannot happen because science cannot muster that kind of reliability, at least not in the publicity generated by a capitalist society. Even when the secularized remnants of masculine Protestant Dissent had established themselves as the new authorities of science (at least in Britain; Pels 2008), the more plebeian (and magically inclined) currents they pushed aside continued to exist, if in the margins (Pels 2000). They helped to cultivate a gnostic attitude toward publicly authorized knowledge by affirming that reason and science, or faith and religion, were both too narrow to attain truth (Aupers et al. 2008: 688–692). The fluctuations of this subaltern cultural current depended—like science fiction—on mood swings in the North Atlantic between the modernist celebration or romantic mistrust of science (and religion)—just like the one that helped to create the Faustian moment in the early nineteenth century that produced *Frankenstein*. If World War One destroyed Europe's optimism about science and technology but boosted the faith in its own technical prowess of the rising hegemon, the United States, it is tempting to juxtapose the European fantasy worlds of E.R. Eddison and Lord Dunsany or the dystopian vistas of Olaf

Fig. 10.7 A performance of Karl Capek's *RUR* in 1921. Capek's play introduced the term "robot" in describing how they revolt against humanity

Stapledon's "last men" or Karl Capek's "robots" (Fig. 10.7) to the "scientifiction" of Hugo Gernsback's *Amazing Stories* (Fig. 10.8) or E.E. "Doc" Smith's *The Skylark of Space* (1958 [1928]).

However, that would not only marginalize American fantasy (by, for example, James Banch Cabel) or European utopia (by, for example, Aleksander Bogdanov), but also ignore that, when American faith in techno-scientific modernization was at its apex immediately after World War Two, the subaltern currents of commercial science fiction and Blavatsky-style gnosis would merge in another crossover of fiction into fact (or vice versa). As the then editor of *Amazing Stories*, Ray Palmer, merged Madame Blavatsky with a peculiarly racialized Ufology between 1945 and 1947 (Roth 2005: 48–50), and the celebrated editor of *Astounding Science Fiction*, John Campbell, pledged his allegiance to the gnostic religion of L. Ron Hubbard in 1950 (Hubbard later founded the Church of Scientology; see Asimov 1979: 586), doubts about science and desires for a post-human evolution once more combined to turn a debate in fiction into a factual movement creating its own fake news.[6]

Fig. 10.8 The first cover of *Amazing Stories*, edited by Hugo Gernsback, of April 1926

Our current world is not radically different. In their brilliant overview of "American Apocalypsis", Kathleen Stewart and Susan Harding suggest that—since the Moral Majority broke up the secular public sphere in the United States of America in the 1980s—the gnostic mood has even

become more prominent and that both Christian fundamentalists and Ufologists might agree on this mantra of conspiracy theory, first coined by the TV series *The X-Files*: "Trust No One—The Truth Is Out There" (Stewart and Harding 1999: 294; see also Harding 2000: 79). The gnostic suspicion of the surface appearance of the world, and the certainty that a divine spark of insight will lead an individual to the truth, was staple food to the conspiracy theorist and the Theosophist, and continues to inform those viewing *The X-Files* on television, or *The Matrix* in the movie theater. If anything, gnostic suspicion has become more mainstream, to further undermine trust in science—or in other statements of public authority. Even more, the "Alt-Right" movement uses the simile saying that its members have been "redpilled" so that they can unmask the left-wing public conspiracy of science and welfare—copied from the scene in *The Matrix* when Morpheus offers Neo a red pill to take the shells of his eyes and see the real world behind the cyber-illusion that dupes everyone else.[7] The trust in evolution displayed by Blavatsky's fantasy-Mahatmas, or the fear of a post-human evolution voiced by Lytton and Haggard, is echoed by such imagery, even if current science fiction has replaced evolution by the digital revolution. It suggests that the magic of capitalism still lies in the fact that (contrary to most liberal expectations) it works neither through the attractions of fact (or skepticism) nor those of fiction (or faith), but by the uncertainty of their juxtaposition.

Notes

1. On the ideological (and initially non-Darwinian) influences on social evolutionism, see Peel (1971) and Trautman (1987).
2. In contrast, Frazer was not ambivalent about these hierarchies of value, although he did fear that the forces of barbarism could break through the thin crust of Victorian civilization from below (Frazer 1911: 236).
3. A field pioneered by Magoroh Maruyama and Arthur Harkins (1975, 1978).
4. Therefore, neither the fact nor the quantity of profit says anything about the literary quality of the texts or the visual quality of the performances.

5. Indeed, this material focus (see Pels 2010) explains why I illustrate my argument by some of the most visible material manifestations of science-fictional magic in print capitalism: the images on and in books.

6. And vice versa: Ufology's brainchild, the "saucerite movement", would be once more turned into sci-fi by Fritz Leiber's wonderful and hilarious *The Wanderer* (1983 [1964]). My own attitude toward the possibility of extra-terrestrial visits put forward by Ufologists is comparable to Thomas Henry Huxley's comment on the possibility of communicating with the dead in Spiritual seances: Huxley could not muster much interest if the deceased would not start to communicate more intelligently than they had done so far (Huxley 1900: 420).

7. Clones of "Alt-Right" argue this on both sides of the Atlantic: see Kouwenhoven and Adriaanse (2017: 10).

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