



Harry Lee Poe

Article

Creating a Medium for Exploring the Implications of Science: Edgar Allan Poe and the First Science Fiction

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Science fiction has emerged as one of our culture's means of carrying on a broader conversation about the direction of both science and technology. It asks the questions of unintended consequences and what might be the long-term outcome of applied science. One of the first writers to develop this new genre was Edgar Allan Poe. In fact, it is in his writings that we find the first examples of many of the plots that still embody science fiction today.

Science fiction enjoys a status today that was unthinkable one hundred years ago. It is one of our culture's most popular forms of stories, and, for many people, their primary source of information about science. In order to raise the most pertinent questions about existence, science fiction taps into the fears and anxieties that people have about modern society and its direction. People with a materialist view of the world, such as H.G. Wells, have used science fiction to present their perspective on reality, and people with a Christian view of the world, such as C.S. Lewis, have used science fiction to present their perspective. Science fiction remains popular, however, because the audience becomes a participant in the discussion. Science fiction creates a venue for the exploration of the issues of existence, thus it has become the mythology of the modern world.

Western culture produced science fiction in the same way that it produced popular democracy and universal education.

Every culture produces institutions and art that embody its core beliefs and values. One way to track the rate of change in a culture, and the extent to which a culture has abandoned old beliefs and values, is to take note of the introduction of new institutions and art forms. Science fiction suddenly appeared as a new art form in the early nineteenth century. It would not have a name until a century later, long after it had become accepted as one of the culture's most popular kinds of stories.

New art forms rarely appear in world history. Cultures have produced few ways of telling stories. For millennia, most cultures of the world expressed their core beliefs and values through the telling of adventure stories. Such stories glorify values such as courage, loyalty, and skill in fighting. They deplore traits such as treachery, cowardice, and fear. The Greeks modified the adventure story to create dramatic tragedy—not only a new kind of story, but a new way of telling a story. Instead of the lone storyteller or poet holding forth for hours in conjunction with a banquet, a company of actors presented the story to a vast civic audience. In counterpoint to the tragedy, the comedy appeared. Both tragedy

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and comedy present and reinforce a culture's core beliefs and values by portraying the tragic consequences of violating the values or by demonstrating the foolishness of ignoring the values. Somewhere in eleventh-century France, a troubadour invented the love story, which soon became one of the most popular kinds of stories in European culture.

In times of cultural change, old art forms fade and disappear because they no longer reflect the core beliefs and values of their culture. At the end of the classical period in the West, drama disappeared. It no longer fit with the emerging culture of the Christian West that we call Christendom or the Middle Ages. Even as drama faded, the new art form of allegory became the dominant art form for the next one thousand years throughout the Middle Ages, only to die a sudden death at the beginning of the modern period as drama once again emerged.

Given the rarity of new art forms, how do we account for the creation and development of science fiction in the West during the nineteenth and twentieth centuries? Given the function of art to interact with the prevailing core beliefs and values of a culture, what core beliefs and values of western culture does science fiction support or challenge? Given that science is concerned with the study of the physical world, how do we account for the tendency of science fiction to focus on transcendent questions of value?

Science fiction has not received a happy welcome from the literary establishment concerned with "serious" literature. The case of T.S. Eliot illustrates the problem for science fiction in the academy. Eliot delivered a particularly dismissive lecture on Edgar Allan Poe at the Library of Congress in 1948, largely to explain why Poe's enormous continuing influence on the development of art, music, and literature in Europe should not be taken seriously, and why Europeans were wrong. While he focused his attention on Poe's poetry (it had meter, rhythm, and rhyme), he commented in passing on Poe's "great influence upon some types of popular fiction," notably the detective story and science fiction. Eliot acknowledged that H.G. Wells owed a debt to Poe's science fiction, but that was the problem for Eliot: science fiction did not matter to him precisely because it was *popular fiction*. He remarked dismissively, "But I fear that nowadays too few readers open *She* or *The War of the Worlds* or *The Time*

Machine: fewer still are capable of being thrilled by their predecessors."¹

Although Eliot has enormous cachet among literary critics, his comments betray the enormous gulf between academic literature and the popular imagination. He appears to have missed the culture completely. Perhaps because he was living in England at the time, Eliot did not appreciate the extent to which the public had been thrilled by Orson Welles's radio production of *The War of the Worlds* in 1938, only ten years earlier. Its success at verisimilitude created a state of panic in many communities, and the production had to be ended in mid-broadcast to reassure the public that it was only a story. Eliot's failure to appreciate the significance of the new literary art form also prevented him from predicting the staying power of Wells's stories, for *The War of the Worlds* would become a major motion picture five years later in 1953 and again in 2005. Wells's *The Time Machine* would be produced as a movie in 1960 and again in 2002. These kinds of stories have a continuing appeal for our culture that strikes at the fundamental questions of life and survival. No kind of literature is more serious than science fiction.

The Appearance of Science Fiction

Mary Shelley published *Frankenstein* in 1817, following the tumult of the Napoleonic Wars. As a result of the wars, the map of Europe and the balance of power had changed dramatically. The world had changed in other dramatic ways during and in the years leading up to the Napoleonic period. The Industrial Revolution had transformed the production of textiles and iron through the invention of machines and processes that produced goods quickly and of a higher quality. Improved iron-making processes increased the demand for coal and iron ore which led to the introduction of steam-powered locomotives for hauling ore in Britain in 1804. Robert Fulton began operating a successful steamboat in New York in 1807. As early as 1783, hot air balloon flight had begun in France. Benjamin Franklin had ushered in an age of experimentation with electricity and its properties before the American Revolution.

In *Frankenstein*, Shelley questioned what happens when humans "play God." This first modern science fiction story assumes dramatic advances in medical,

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chemical, and biological sciences that would lead to an understanding of the secret to life itself. Written over forty years before Darwin published *On the Origin of Species*, Shelley's *Frankenstein* was written long after the idea of evolution in some form had been circulating in intellectual circles. The concept of evolution has profound implications for the presence or absence of God in the story of life. The boundary between life and death, between object and person, raises profound ethical questions. Not only were the advances in science raising questions about the boundary between right and wrong; they also raised the question of whether right and wrong even exist.

Questions of right and wrong lie within the spheres of religion and philosophy. They belong to theology, law, and politics. The scientific method, however, has no way to ask such questions, much less answer them. Science merely observes and describes the physical world. Technology applies the discoveries of science to creative invention. The idea of limiting what science may explore belongs to a different realm of life. The Royal Society and the French Academy of Sciences might have provided a forum for the great minds of the age to debate the relationship of ethics and morality to science, but the general public had no voice in the debate. Whatever her intention may have been, by writing *Frankenstein*, Shelley made the role and limitations of science in the modern world a topic of general conversation within the mass public. At the moment of the expansion of the franchise in the West when popular opinion was about to matter, a new form of art appeared that prompted popular discussion about scientific matters that the average person would never have understood apart from its fictional format.

When it was first published, *Frankenstein* appeared to be just another German gothic horror story. The monster story fits well in the tradition of the old fairy stories. It belongs to Beowulf and his battle with Grendel. It belongs to St. George and the dragon. With *Frankenstein*, however, Shelley has moved out of the world of faerie and into the modern world of cause and effect. The monster is not like a vampire or a werewolf. The monster has been created by modern science. The details are obscure, but they are all written down in Frankenstein's book that documents his experiments and discoveries about the secret of life. Shelley took her monster out of the world of once upon a time and placed him in the midst of the

scientific revolution. In Shelley's story, the horror does not come from the world of the supernatural but from the scientists who play God.

The Industrial Revolution accounted for the dislocation of hundreds of thousands, if not millions, of people across Europe as the economy shifted from agriculture based to manufacturing. Efficiency in mechanized manufacturing also cost the jobs of the old cottage industry. Riots took place when people felt threatened by machines and the inevitable tide of progress. To a great extent, this fear of technology and the loss of livelihood has returned at the beginning of the twenty-first century as a major dynamic of post-industrial society. Shelley's novel succeeds as horror because it touches human fear.

The Development of Science Fiction

Edgar Allan Poe maintained an active interest in science throughout his career, and he was one of the first writers to take up Shelley's new kind of story, though we have no evidence that he actually was influenced by her. While *Frankenstein* was still regarded as a simple horror story, Poe focused on what distinguished it from other stories. Shelley had incorporated scientific ideas into her story, and Poe would strive to introduce the most current scientific ideas into his stories. Poe's second science fiction story, published in June 1835, involved a trip to the moon. Over the previous few centuries, others had written of trips to the moon, but Poe saw a sharp distinction between his "The Unparalleled Adventure of One Hans Pfaall" and the earlier stories. The story was set in his own time, and it depended upon the reader's identification with the reality at the beginning of the story. In a note appended to the story when it was later published in his first collection of short stories in 1840, Poe argued that his story of a trip to the moon attempted "to give plausibility by scientific detail."² He explained of his science fiction,

In "Hans Pfaall" the design is original, inasmuch as regards an attempt at *verisimilitude*, in the application of scientific principles (so far as the whimsical nature of the subject would permit) to the actual passage between the earth and the moon.³

Though Poe, like Shelley, came to science fiction through the door of horror, he would experiment

with a variety of story forms as vehicles for his science fiction. Poe preferred comedy and satire to all other kinds of stories, and his second science fiction tale is a comedy. A great one for experimentation, Poe wrote several of his science fiction stories as comedies, some as adventures, some as horror, some as terror, and one as romantic comedy. He also experimented with the structure in which he presented his science fiction so as to increase the air of credibility. He wrote them as letters, journals, field notes, experimental notes, and news stories in addition to straightforward narratives. What they all had in common, however, was a dependence upon real science and the exploration of transcendent questions. Poe held a lifelong interest and fascination in science from the time of his childhood in England when his foster father bought him an expensive brass telescope for viewing the heavens. His interests were broadened by studying with the Rev. Dr. John Bransby at the Manor House School in Stoke Newington. Bransby finished Cambridge, and in addition to being a Classics scholar was devoted to the study of botany.

According to Harold Beaver, who edited the anthology of Poe's science fiction, Poe placed his emphasis on logic, reason, coherent forecast, and calculation as he wove his science fiction narratives.⁴ Poe created the norms of science fiction, just as he did for the short story and for detective fiction. Arthur Conan Doyle credited Poe with the creation of the mystery story, and Jules Verne acknowledged his debt to Poe. Writing in France in 1909, Maurice Renard referred to Poe rather than Verne as the actual creator of the "marvelous-scientific romance."⁵

Before ever turning his hand to science fiction, Poe had written science poetry. In his "Sonnet—To Science," written at about the age of twenty when he served in the Coastal Artillery of the US Army, Poe lamented the tendency of modern science to drag "Diana from her car," to drive "the Hamadryad from the wood," and to tear "the Naiad from her flood" and the elves "from the green grass." Worst of all, at this young age of discovery, Poe accused science of tearing from him "the summer dream beneath the tamarind tree."⁶ Instead of destroying the wonder and transcendence to which nature points, Poe's study of science over the next twenty years would demonstrate conclusively to him the divine mind behind the universe.

Poe wrote "Sonnet—To Science" as the introduction to his second long poem, "Al Aaraaf." Poe set this poem within the context of Tycho Brahe's observation of a supernova that suddenly appeared and then soon disappeared. In his poem, Poe associated this astronomical phenomenon with the Islamic concept of a median realm between heaven and hell. In the realm of Al Aaraaf, souls do not suffer punishment, but neither do they enjoy heavenly bliss. The contemplation of the relationship between the physical and the transcendent, as well as wondering what lay beyond death, would form an essential aspect of the plots of Poe's original science fiction stories.⁷

The Science Fiction Plots

For Shelley in 1817, the horror story provided the bridge for her *Frankenstein* to journey into science fiction. Likewise for Poe in 1833, the adventure story wed to horror provided the bridge to science fiction for his first science fiction story, "MS. Found in a Bottle." Horror provided merely a starting point for Poe, whose philosophy of composition drove him to find new ways of telling stories. For Poe, the purpose of all art, and literature in particular, was to have an effect on the audience. He would develop a variety of plot structures that suited him in the exploration of a range of spiritual issues designed to have an effect on his audience. They remain the primary plots of science fiction today; these plots continue to have an effect on modern audiences.

The Scientific Quest— "MS. Found in a Bottle"

In this sea-faring adventure beset with tidal wave, hurricane, death and destruction, fear of the kraken, and a ghost ship, Poe's narrator finds himself borne along a rapid ocean current to the southern pole. The story appeared before anything was known of Antarctica except that it might exist. The continent had been sighted by 1820, but it would be several decades before explorers concluded that the massive ice sheets of the southern ocean formed part of a continent. Poe's narrator experienced one of the most compelling theories of the earth at the time—John Cleves Symmes's theory that the earth is hollow and accessible by openings at the poles. The story shifted from mere adventure and horror to science fiction by virtue of its treatment of one of the great unknown mysteries about the nature of the earth.

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Poe evoked the danger of nature and the unknown which haunted human dreams for millennia in describing the polar region:

All in the immediate vicinity of the ship is the blackness of eternal night, and a chaos of foamless water; but about a league on either side of us, may be seen, indistinctly and at intervals, stupendous ramparts of ice, towering away into the desolate sky, and looking like the walls of the universe.⁸

Then, in the closing paragraph, Poe turned to the quest for knowledge that excites and compels humans onward, even in the face of danger:

To conceive the horror of my sensation is, I presume, utterly impossible; yet a curiosity to penetrate the mysteries of these awful regions, predominates even over my despair, and will reconcile me to the most hideous aspect of death.⁹

The desire to acquire such “exciting knowledge” must come at the risk of destruction. This plot (1833) would animate the voyages of the starship USS Enterprise 133 years later as that spacecraft set out “to explore strange new worlds, to seek out new life and new civilizations, to boldly go where no man has gone before.”¹⁰

At the end of the story, the ship is caught in the whirling current of vast concentric circles within a “gigantic amphitheatre,” whose walls reach up into the darkness, before the ship finally quivers and heads down into the great whirlpool. This plot has been repeated any number of times, such as in Verne’s *Journey to the Centre of the Earth* (1864) or Arthur C. Clarke’s *2001: A Space Odyssey*. As a mere sea adventure story, Poe’s story influenced Herman Melville and formed a central element of *Pirates of the Caribbean: At World’s End*.

MS. Found in a Bottle, his first science fiction stem-winder, won Poe a prize of fifty dollars from the *Baltimore Saturday Visitor* which published it. Though Poe had published three slim books of poetry, his science fiction story marks the beginning of his success as a writer and would lead to his first job as an editor for the *Southern Literary Messenger*. In terms of science fiction, however, he had written a tale that explored the imperative of the quest for scientific knowledge in spite of the obstacles—even if no one ever knew or believed what had been discovered. Such a tale climatizes a culture to value the scientific search for knowledge.

Space Exploration and Aliens— “Hans Pfaall”

For his second science fiction tale, Poe’s adventurer leaves Earth and travels to the moon in a hot air balloon. Rather than another adventure/horror story, “The Unparalleled Adventure of One Hans Pfaall” (1835) is a comic tale whose aeronaut ascends the heavens on April Fools’ Day. Others had written tales about the Moon which Poe had criticized for their lack of verisimilitude. Poe’s satirical treatment with its absurd balloon made of discarded newspapers represents Poe’s love of lambasting poor efforts in any genre. His “How to Write a Blackwood Article” and its companion piece, “A Predicament,” parody the vapidness of horror stories. His “Never Bet the Devil Your Head: A Tale with a Moral” satirizes the insistence of the New England literary establishment that all literature should offer moral instruction. The absurdity of “Hans Pfaall” underscores Poe’s belief that tales of this kind must have verisimilitude to be compelling. In other words, science should be taken seriously in the construction of the plot.

Poe’s story not only involves a voyage into space. It also involves an encounter with aliens from another world. Poe’s story is ambiguous as to whether the Lunians are friendly or hostile, and that ambiguity fuels the anxiety about how to regard creatures from other planets. For H.G. Wells, the aliens would be hostile, but for C.S. Lewis, it is the natives of Earth who alone are hostile in the universe.

Verne adapted this plot in his novel *From the Earth to the Moon* (1865). Wells tried his hand at this plot with *The First Men in the Moon* (1901). French film maker Georges Méliès adapted Verne’s story to film *A Trip to the Moon* (1902), one of the first great short films and still available on Netflix. As the twentieth century progressed, the moon ceased to be the challenge that it once was, and space flight extended beyond the solar system and beyond the galaxy.

Lost in Space— The Narrative of Arthur Gordon Pym

Poe’s only novel, *The Narrative of Arthur Gordon Pym* (1838), builds on the sea adventure story of “MS. Found in a Bottle.” It elaborates an attempt to explore the southern ocean and reach the southern pole to uncover one of the greatest scientific mysteries of the early nineteenth century. Poe’s characters

experience mutiny, shipwreck, hostile natives, murder and mayhem, and starvation before they are lost in the southern ocean approaching the end of the world. It is a retelling of Homer's *Odyssey*, except it is full of geographical and oceanographic details, and worst of all, the sailors do not return home.

The most important feature of the plot involves the journey to an unknown world from which the travelers may or may not return. In the course of the journey, however, they advance human knowledge. At the end of the world, Poe's travelers are confronted by a giant figure shrouded in white. Poe had general contempt for symbolism in literature because most symbols were arbitrary contrivances in the mind of the author to which the reader did not have access. On the other hand, he found it hard to pass up a chance to poke fun at the literary establishment by including a symbol for which there was no key. Unlike the traditional adventure story, like that of Bilbo Baggins who went "There and Back Again," this story takes its adventurers beyond their world to an uncertain future.

Arthur Conan Doyle, who had great success adapting Poe's detective plots, adapted this plot in *The Lost World* (1912), which has been translated to film and television. In one form, this plot served the television series *Lost in Space* (1965–1968) which was made into a movie in 1998. *Star Trek: Voyager* (1995–2001) also relies on this basic plot.

Apocalypse—

"The Conversation of Eiros and Charmion"

With "The Conversation of Eiros and Charmion" (1839), Poe developed a plot based on the end of the world caused by a brush with a comet. Halley's Comet had appeared in 1835 and William Miller had created a great stir with his prediction that the world would end in 1844. The conversation in the tale involves the recollections of two spirits in the next life who describe how the world anticipated the approach of the comet and how the end came. For his verisimilitude, Poe appears to have relied on *The Christian Philosopher* by Thomas Dick, who speculated that the extraction of nitrogen from the air could result in the combustion of the atmosphere.¹¹ The comet causes such an alteration to the chemical composition of the atmosphere that Earth bursts into flame.

The device of the comet would feature in Verne's *Off on a Comet* (1877), but the plot of the end of the world by natural disaster would become a favorite science fiction plot in recent years with movies such as *Armageddon*, *The Day After Tomorrow*, and *World War Z*. Science fiction mirrors the fears of society as informed by scientific concerns about the climate, disease, and an unstable asteroid belt. Scores of apocalyptic movies have been produced since 1970 which reflect the dominant anxieties that people feel about the survival of the planet.

Rationality and Imagination with Nature as Ally—

"A Descent into the Maelström"

In "A Descent into the Maelström" (1840), Poe turned again to a natural phenomenon for the source of danger and the cause for fear, but he also wedded human rationality and imagination for a way out. Poe regularly relied upon what he knew to be an innate fear that his audience would bring to his stories: fear of fire, water, height, earth, and darkness. People fear burning, drowning, falling, premature burial, and isolation. It is interesting to note that our greatest primordial fears became the four basic elements of the cosmos for the ancients: fire, water, earth, and air.

In this story, a fisherman recounts how he was drawn into the great maelstrom in the district of Lofoten in Norway. We know from the beginning that the man will not die because he tells his tale to another person. Despite what the reader knows, Poe still creates terror because of the reader's own fears. Alfred Hitchcock said that what Poe managed to do was tell an implausible story in such a way that the readers believe it can happen to them.¹²

Others had written stories of surviving a bout with such a whirlpool, but Poe was dissatisfied with the solutions and aimed for a more logical explanation for how a person could survive by their wits and powers of observation—the critical elements of the scientific method. The fisherman had to rely on cooperating with the laws of nature, rather than fighting them, in order to survive. Thus, nature is not the enemy, but the ally.

Wells employed this plot as the denouement of *War of the Worlds*, for the planet is saved from the invaders from Mars by the tiny microbes that decimate the invaders.

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Human Depravity and Hope beyond Death—

"The Colloquy of Monos and Una"

In "The Colloquy of Monos and Una" (1841), Poe turned again to global disaster, but this time to humans as the cause. Una and Monos are two people who have died and gone on to experience "Life Eternal" through new birth.¹³ The colloquy explores how world civilization grew cold and callous so that the only real hope lay in being born again. Monos then describes how it felt to die and then be resurrected. In the course of this colloquy, Poe explores "the autocrats *Place* and *Time*."¹⁴ Poe continually returned to the problem of time and space in his stories, essays, and poetry, but he found science fiction a particularly appropriate genre for exploring the boundary between life and death, which represents one step beyond Shelley's exploration of the ethics of reanimating body parts.

The boundary between life and death is the boundary between science and religion. Tolkien would explore this boundary with Gandalf's transformation from the Grey Wizard to the White Wizard. J.K. Rowling would explore this boundary with Harry Potter's visit to King's Cross station and his return in *Harry Potter and the Deathly Hallows*. Lewis would explore this boundary with Aslan in *The Lion, the Witch, and the Wardrobe*. Some might think that the similarity of these stories suggests that Poe's story belongs to fantasy instead of science fiction, but we should recall that bookstores had already placed *The Lord of the Rings* in the science fiction section of the store several decades earlier. The boundary between science fiction and fantasy is a narrow one.

The science fiction disaster story in which humans bear the blame for causing the disaster has returned during particular times of corporate anxiety. During the great fear of atomic war in the 1950s, we had *The Day the Earth Stood Still* followed by *The Planet of the Apes*. The fear of environmental disaster coincided with *The Andromeda Strain* and *The Omega Man* (earlier filmed as *The Last Man on Earth* and later filmed as *I Am Legend*).

The Relativity of Space and Time—

"Three Sundays in a Week"

Originally published with the title "A Succession of Sundays" in 1841, "Three Sundays in a Week" is a

romantic comedy that relies upon one of the most profound ideas of the last three thousand years for its punch line. A contrary old man in London refuses to give his consent for his daughter to marry his nephew until three Sundays fall in a single week. The daughter conceives a solution to the problem by inviting two old friends to dinner the following Sunday. Both men were sea captains who had left England on the same day a year earlier and then returned on the same day that week. One sailed east and the other sailed west. The contrary old man sat down to eat on Sunday, but one of the captains who ate with him sat down on Monday while the other sat down on Saturday. For one, Sunday had been the previous day and for the other, Sunday would be the next day. Thus, three Sundays had fallen within one week. Poe concluded the story with the remark, "there can be no philosophical reason assigned why the idea of one of us should have preference over that of the other."¹⁵

In *Eureka*, Poe expanded the idea that no time or space had preference on Earth to the idea that "duration" and "space" were the same thing and relative to each other. Verne adapted the plot in *Around the World in Eighty Days* (1873).

Knowledge across Time and Space—

"A Tale of the Ragged Mountains"

With "A Tale of the Ragged Mountains" (1844) Poe returned to science fiction related to the mind. Psychology and psychiatry were not yet in their infancy, but Poe was fascinated by the mind and how much science did not know about it. Phrenology and mesmerism were all the rage, but Poe had serious doubts about both as science. He set this tale in the mountains around Charlottesville in 1827, the year after he left the University of Virginia. Poe loved to hike these mountains and regularly walked twenty or thirty miles a day exploring their beauty.

In this tale, the principal character describes what might be called an out-of-body experience that transported him to Calcutta in the midst of the revolt of 1780. Poe wrote the story in such a way as to allow a variety of explanations for the experience, ranging from a true psychic phenomenon to a drug-induced hallucination to a hypnotic suggestion. The story opens the question of epistemology in general and the possibility of knowledge of the past and future.

The question of what we know and how we know would take center stage in much of Poe's work in the 1840s, but this kind of science fiction would enjoy periodic popularity down to the present day. The recent films *Interstellar* and *Arrival* explore, as Poe did, what we can know as either a natural or a super-natural process.

Just beyond the Current Science— "The Balloon-Hoax"

Poe's greatest science fiction triumph came in April 1844 when the morning edition of the *New York Sun* published a brief paragraph in anticipation of its noon edition.

By Express

Astounding intelligence by private express from Charleston via Norfolk!—The Atlantic Ocean crossed in three days!!—Arrival at Sullivan's Island of a steering balloon invented by Mr. Monck Mason!!

The announcement created a sensation, and the noon edition of the paper with the full story of the trans-Atlantic aeronautical crossing sold out at scalping prices. The next day, the *Sunday Times* picked up the story. This story that appeared to be a news story now goes by the name "The Balloon-Hoax."¹⁶ It is the primary reason that good science fiction, which had an air of believability, went by the name of "hoax" for so many decades before science fiction became the accepted name. Upon reading "The Balloon-Hoax," Verne determined to devote himself to writing this kind of story. His first science fiction tale was *Five Weeks in a Balloon* (1863).

Four years earlier, Poe had written a brief note in his monthly column on science about Charles Green's claim that trans-Atlantic balloon travel was possible using a form of hydrogen gas.¹⁷ This kind of science fiction story depends upon tapping into a current conversation about what might be possible in the immediate future such that reasonable people might expect a new discovery at any moment. New stories about cold fusion have traction because people would like to believe that this next step has been achieved. Sandra Bullock's *Gravity* and Bruce Willis's *Armageddon* depend upon this current conversation: what might someone do who has had an accident in space, or how might we save the earth from a fatal collision with an asteroid? Matt Damon's *The Martian*

is the same kind of story, for it involves questions currently under consideration by NASA. For the most successful of these stories, the challenge to humans must be enormous, and failure must mean death.

The Mind, Death, and God— "Mesmeric Revelation"

In "Mesmeric Revelation" (1844), Poe returned to hypnotism that he had only hinted at in "A Tale of the Ragged Mountains." This time, the whole story is presented as the case notes of a mesmerist who has been asked by a skeptic to place him in a trance in hopes of satisfying his mind about a troubling thought that had recently perplexed him. He feared that he might have an immortal soul. Logic alone could not settle the question for him. Poe was not impressed by the philosophical arguments for the existence of God. Poe regarded the imagination as a higher form of knowing which made both poetry and scientific discovery possible. Once under the hypnotic trance, the skeptic is free from disbelief and discovers God and the universe.

The 1840s were a period of wild religious enthusiasm. Joseph Smith, the founder of the Mormons, was killed by a mob the same year that this story appeared. Belle Baumbfree took the name Sojourner Truth in 1843 after living for a time in the commune of Prophet Matthias. Transcendentalism was all the rage among the New England intelligentsia. At the beginning of the New Age Movement in the 1970s, science fiction once again employed the dialogue about the nature of God as a key element in the story with Luke Skywalker quizzing Obi-Wan Kenobi about the Force in *Star Wars*.

Resistance to Science— "The Thousand-and-Second Tale of Scheherazade"

In "The Thousand-and-Second Tale of Scheherazade" (1845), Poe crafted a comic sequel to the famous *One Thousand and One Nights*. As science fiction, the plot centers on the way that narrow-minded, ignorant, and unimaginative people may hinder the advance of science and technology. Poe picks up the story the night after the successful conclusion and happy ending of *One Thousand and One Nights*. Unfortunately, Scheherazade decides to tell the king a new tale of

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Sinbad and a land he visited that had all the wonders that Americans in the 1840s had recently acquired: the daguerreotype, the telegraph, iron ships with steam engines, and a variety of other things that skeptics had laughed at only a few years earlier. The king regarded the tale as too preposterous, so he had his queen killed. This plot provides the conclusion of *Things to Come* (1936), a British film written by Wells. The film's title is the English translation of Poe's next-to-last science fiction short story, "*Mellonta Tauta*."

Reanimation of Life—

"Some Words with a Mummy"

Poe wrote "Some Words with a Mummy" (1845) as a comic story, but its plot deals with the issue of prolonging life through scientific means. In this case, the party engaged in examining a mummy decided to apply an electrical charge to its brain after realizing that the internal organs had not been removed. This mummy appeared to have been a victim of premature burial. Of course, the mummy sprang to life and proceeded to critique everything wrong with modern life. Poe did not hesitate to include in the examining group George Robbins Gliddon, a noted British Egyptologist then on a lecture circuit in America.

This kind of plot has two variations. As a horror story dependent on the occult for reanimation, Hollywood has kept the plot alive with *The Mummy* (1932), *The Abominable Dr. Phibes* (1971), *The Mummy* (1999) and its sequels, and *The Mummy* (2017). As science fiction, however, the plot has moved away from a mummy to a more terrifying idea—the reanimation of Adolf Hitler through genetic science in *The Boys from Brazil* (1978). This plot also serves as the basis for *Jurassic Park* (1993) and its sequels.

The Manner of Creation—

"The Power of Words"

"The Power of Words" (1845) is a dialogue that begins in the midst of a conversation between Oinos (Wine), a new immortal spirit, and Agathos (Good), an old immortal spirit. They discuss three topics: (1) the possibilities of knowledge in an infinite universe (Poe would reject the idea of an infinite universe in *Eureka* in 1848); (2) ether as the medium through which the force of creation moves (Poe would reject the notion of ether in *Eureka*); and

(3) the difference between primal creation by God and secondary creation. From their discussion, love emerges as the motive for creation. The plot of the story explores what kind of universe exists and how creation occurs beyond the initial impulse of God.

This fiction of science represents ideas that Poe would develop in *Eureka*, his cosmological essay on God and the universe. It is important to note that Poe's stories about an afterlife and what that might be like were not mere intellectual curiosity. They were driven by an existential crisis, for his wife had been dying of tuberculosis since 1842, and it was not until she died in 1847 that he devoted himself to working out the relationship between science and God in *Eureka*. Science fiction continues to provide a context for pondering and discussing the great existential issues that affect people personally.

The examination of the presence or absence of God in the construction and maintenance of the universe provides the plot to Carl Sagan's novel *Contact* (1985), which was produced as a major film starring Jodie Foster in 1997. The description of the Force in *Star Wars* (1977) made it acceptable in American popular culture to talk about God/god unselfconsciously after a hiatus of several decades. This conversation is now once again common in science fiction.

Artificial Prolonging of Life—

"The Facts in the Case of M. Valdemar"

"The Facts in the Case of M. Valdemar" (1845) take the plot of "Mesmeric Revelation" one step further as a horror story. In "Mesmeric Revelation," a skeptic hopes hypnotism will enlighten him about the existence of God, but he dies in the midst of the trance. In "The Facts in the Case of M. Valdemar," hypnotism is employed as a scientific experiment to prevent a man from dying. The doctors expected Valdemar to die within the night, but once in a hypnotic trance, he was kept so for seven months during which time he responded to the mesmerist's questions. At last, Valdemar declared,

"For God's sake!—quick!—quick!—put me to sleep—or, quick!—waken me!—quick!—*I say to you that I am dead!*"¹⁸

As soon as the mesmerist attempted to act, Valdemar was immediately reduced to "a nearly liquid mass of loathsome—of detestable putridity."¹⁹

The artificial prolonging of life is Poe's flip side to the fear of premature burial that so occupied the thoughts of his era. He anticipated a different problem with the advances of science. Lewis used this plot in *That Hideous Strength*. It is the reason for creating clones to harvest body parts in *The Island* (2005). It is the horror of deciding when to let daddy die. It is existential rather than theoretical.

Future Society— "Mellonta Tauta"

Poe adapted "Mellonta Tauta" from the fictional introduction to *Eureka*. It is in the form of a letter written from the airship "Skylark" in the year 2848. Just as Plato had begun his cosmological essay *Timaeus* with the cataclysmic tale of Atlantis from the distant past, Poe began his cosmological essay *Eureka* with an optimistic take, set in the distant future.

In contrast to the Transcendentalists, Poe had no faith in human perfectibility and saw no evidence of an improvement in human nature over the previous 6,000 years. War and pestilence would be seen in the future as positive goods for controlling the population. On the other hand, he did believe that people would continue to make advances in science. His future airships could travel in excess of 150 miles per hour, and trains could exceed 300 miles per hour. In that future society, commerce with the citizens of the moon, who have a superior technology, will be commonplace. New York had been destroyed in a massive earthquake in 2050, but archeologists have found many interesting remains that the future humans misinterpret because of their new set of assumptions.

Science fiction looks to the future with a range of expectations from utopian to dystopian. This plot formed the basis for Wells's *The Time Machine* and for *The Hunger Games* books and movies. It is also the plot for *The Matrix* and *Terminator* series of movies.

The Great Scientific Breakthrough— "Von Kempelen and His Discovery"

Poe published his last science fiction story, "Von Kempelen and His Discovery," in April 1849 at the beginning of the California Gold Rush and just a few months before his death. In response to the Gold Rush, Horace Greeley, Poe's sometime friend and

sometime rival, famously declared, "Go West, young man. Go West." In this story, Poe declared that the young man, Von Kempelen, should not be such a fool. Poe reports on Von Kempelen's great achievement of successfully turning lead into gold.

In the opening lines, Poe creates the impression that a host of international scholars had reviewed Von Kempelen's notes and experiments to confirm the achievement, thus reinforcing the popular notion of science fiction as hoax. Poe referenced actual scientists, including Dominique Arago, director of the Paris Observatory; Benjamin Silliman, professor of chemistry and natural history at Yale; and Lieutenant Matthew Maury, head of the Depot of Charts and Instruments in Washington, DC.

In the third paragraph, Poe stated his intention of providing details of the process which had been suggested in "The Diary of Sir Humphry Davy." Then, Poe inserted with brackets the following statement:

[As we have not the algebraic sign necessary, and as the "Diary" is to be found in the Athenaeum Library, we omit here a small portion of Mr. Poe's manuscript. -ED.]²⁰

For all those contemplating an arduous trip to California to scrape for gold, Poe suggested that they not waste their time in the light of Von Kempelen's discovery. He followed the story with one of his most beautiful poems, "Eldorado."

Science fiction thrives on the great discovery that will change the world for good or ill. In Kurt Vonnegut's *Cat's Cradle*, it signals the end of the world. In Robert Louis Stevenson's *Dr. Jekyll and Mr. Hyde*, it is the cure to the violence of human nature. In Wells's *The Time Machine*, it is the secret to travelling through time. This kind of plot depends upon an audience that believes in the progress of science and that someday, with persistence, the greatest of scientific problems will be conquered—for good or ill.

Conclusion

Something of the original horror story remains in all successful science fiction. The advance of science often means venturing into dangerous territory. Sometimes the danger involves death, but as often as not it means risk to reputation or professional advancement. Science fiction has focused on the physical danger to the individual and to society that

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scientific advance entails. This encounter with death makes possible the extent to which science fiction has opened a conversation about the transcendent that everyday affairs tend to avoid.

Science fiction lends itself to an unusually broad flexibility for plots when we consider that the love story only has one basic plot and the adventure story only two. Dorothy L. Sayers claimed that Poe had constructed all five of the modern mystery plots, but in all his efforts at pioneering the science fiction story, he did not completely exhaust the plot possibilities. The rich plot variety of science fiction allows the audience to experience vicariously the existential questions of existence that science fiction can raise without damage to the basic plot line or threatening the willing suspension of disbelief. This variety allowed Wells to present one view of reality while Lewis presented another. Both approaches to the questions that science fiction invites, manage to open the discussion to the whole culture, and the audience need not agree with the views of the authors. Once the question has been raised, it is out of the box and no longer under the control of the storyteller.

As the method of science does not allow for self-critique in terms of questions of ethics, morality, and superimposed philosophical considerations, science fiction has emerged as one of our culture's ad hoc means of carrying on a broader conversation about the direction of both science and technology. Science fiction asks the question of unintended consequences and what might be the long-term outcome of applied science. Science fiction lacks all of the rigor of science, but its commentary allows the nonspecialist to contemplate the future that science allows us to envision. ✕

Notes

¹T. S. Eliot, "From Poe to Valéry," in *The Recognition of Edgar Allan Poe*, ed. Eric W. Carlson (Ann Arbor, MI: University of Michigan Press, 1970), 30.

²Edgar Allan Poe, "The Unparalleled Adventure of One Hans Pfaall," in *Poe: Poetry and Tales*, ed. Patrick Quinn (New York: The Library of America, 1984), 996. Three weeks after Poe published "Hans Pfaall" in 1835, Richard Adams Locke published another moon hoax that he attributed to Sir John Herschel as an account of Herschel's observations of flora and fauna on the moon by means of his new telescope. Poe criticized Locke's moon hoax on the basis of the description of the magnifying power of the telescope. Poe remarked,

Mr. L. makes his lens have a power of 42,000 times. By this divide 240,000 (the moon's real distance), and we

have five miles and five-sevenths, as the apparent distance. No animal at all could be seen so far; much less the minute points particularized in the story. (p. 997)

³*Ibid.*, 1001.

⁴Edgar Allan Poe, *The Science Fiction of Edgar Allan Poe*, ed. Harold Beaver (London: Penguin, 1976), x. Beaver has included two of Poe's works that I do not classify as science fiction. One is "The System of Dr. Tarr and Prof. Fether," an original story of the inmates in charge of the asylum. Written as a slap-stick farce, it might be counted as science fiction in the field of psychiatry. The other is Poe's lengthy (almost 150 pages) essay on cosmology, *Eureka*. While Poe's ideas of relativity, the expansion of the universe from a primordial particle, chaos, the forces of attraction and repulsion at the sub-atomic level, the equivalence of matter and energy, and a number of other modern ideas were regarded as ludicrous when Poe wrote his essay, he did not write it as fiction. I have included one story that Beaver does not include, titled "Three Sundays in a Week." This story was critical in Poe's working out his ideas about the relativity of time and space.

⁵*Ibid.*, ix.

⁶Poe, *Poetry and Tales*, 38.

⁷Although I have discussed "Sonnet—To Science" and "Al Aaraaf" in *Edgar Allan Poe: An Illustrated Companion to His Tell-Tale Stories* (New York: Metro, 2008), 39–41 and in *Evermore: Edgar Allan Poe and the Mystery of the Universe* (Waco, TX: Baylor University Press, 2012), 135–36, a much more extensive discussion of them in terms of Poe's interest in science may be found in the recent dissertation of Mo Li, "From 'Before the Eye of the World' to 'What I Here Propound Is True': Science and Edgar Allan Poe's Building of the Universe" (PhD diss., Middle Tennessee State University, 2017).

⁸Poe, "MS. Found in a Bottle," *The Science Fiction of Edgar Allan Poe*, 10.

⁹*Ibid.*, 10.

¹⁰Opening monologue for each episode of the original *Star Trek* series from 1966 to 1969.

¹¹Poe, *The Science Fiction of Edgar Allan Poe*, 356 n.9.

¹²As cited by Peter Wollen, "Compulsion," *Sight and Sound* 7, no. 4 (1997): 17; and Dana Brand, "Rear-View Mirror: Hitchcock, Poe, and the Flaneur in America," in *Hitchcock's America*, ed. Jonathan Freedman and Richard Millington (New York: Oxford University Press, 1999), 123.

¹³Poe, "The Colloquy of Monos and Una," *The Science Fiction of Edgar Allan Poe*, 89.

¹⁴*Ibid.*, 97.

¹⁵Poe, "Three Sundays in a Week," *Poetry and Tales*, 480.

¹⁶As a side note, the *New York Sun* is also the newspaper that printed the most famous editorial ever written: "Yes, Virginia, there is a Santa Claus" in 1897.

¹⁷Edgar A. Poe, "A Chapter on Science and Art," *Burton's Gentleman's Magazine* 6, no. 3 (1840): 149. Poe read voraciously on the sciences and continued to write columns that dealt with new breakthroughs in the sciences until his death. He often included observations about the sciences in his literary essays.

¹⁸Poe, "The Facts in the Case of M. Valdemar," *The Science Fiction of Edgar Allan Poe*, 203.

¹⁹*Ibid.*, 203.

²⁰Poe, "Von Kempelen and His Discovery," *The Science Fiction of Edgar Allan Poe*, 324.

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