

Chapter One

A Brief Natural History of Hoaxing

The word *hoax* is an industrial-age addition to the English language, according to the second edition of the *Oxford English Dictionary*; it first appeared in 1808, just a decade or so before the scientific hoaxes in question began to appear.¹ But the roots of the word can be traced back about two hundred years earlier to the phrase *hocus pocus*, apocryphally considered a parody of *hoc est corpus*, which a Catholic priest would intone during the Eucharist as the host underwent transubstantiation. In this section I undertake a brief survey of famous rhetorical exchanges that have been recorded historically as hoaxes. By accepting and analyzing this folk classification to see how it demarcates hoaxes from closely related genres, I will arrive at the following list of essential hoax features that must be accounted for by my new rhetorical definition.

- Treatment of particular societal tension(s)
- Resistance to closure
- Parasitism on other genres
- Display of genius of hoaxer
- Construction of agonistic relationship between author and reader
- Argumentation at the stasis of existence
- Effacement of textuality
- Destabilization of reality
- Construction of insider/outsider dynamic
- Division of audience according to differing world views
- Dependence on news media

These features will all emerge during the following historical analysis, beginning with the first recorded media hoax, by Jonathan Swift, which clarifies the differences between hoaxing and satire.

Swift's Hoax and Satires

Alexander Boese's *Museum of Hoaxes* provides the most complete chronology of Anglo-American hoaxes currently available. The first published hoax on his timeline is a fake almanac by Isaac Bickerstaff in 1709. Bickerstaff, better known to us as Jonathan Swift, predicted the death of famous astrologer John Partridge and backed up that hoax with a fake obituary for Partridge printed on the day he was supposed to have died. Swift supposedly concocted his almanac to embarrass Partridge publicly, and indeed, Partridge stopped publishing his own astrological almanacs for a period of six years after the hoax.²

Contrasting the Bickerstaff almanac with Swift's later inventions, *Gulliver's Travels* and *A Modest Proposal*, helps distinguish hoaxes from satire. All three works were published widely and anonymously (the first Irish edition of *A Modest Proposal* was signed "Dr. Swift," but the English editions were not). All three were designed to publicly humiliate a person or group of people. But the latter two were satires; they could not have been taken seriously past a few sentences' reading, the one espousing cannibalism, and the other introducing talking horses. The hoax almanac, however, was meant to be believed by readers and was believed, as Partridge himself reportedly learned after a local priest knocked on his door the day of Swift's phony obituary to consult on funeral arrangements.³ Two groups were meant to be embarrassed by the almanac: Partridge and other astrologers, on the one hand, and the gullible readers who believed in astrology, on the other. The readers, by believing the almanac, became unwitting targets of Swift's two-pronged attack.

This central difference between Swift's satires and his hoax, hinging as it does on the role of the reader, points out that distinguishing a hoax from a satire is almost impossible at the level of the physical text, because a hoax shares many textual characteristics with satire. Dustin Griffin's *Satire: A Critical Reintroduction* redefines satire against its traditional classification as a comedic genre that offers its readers criticism of elite classes and standard mores, catharsis for potentially explosive social tensions, and a satisfying sense of closure. Griffin claims that, in reality, satire is more complicated, deconstructing the "safe" critical distance it offers its readers even as it constructs it.⁴ Four textual hallmarks of satire, according to Griffin's poststructural redefinition, apply to hoaxes as well: controversial topics, resistance to closure, parasitism on other genres, and display of genius. I will examine these similarities first before explicating the differences between satire and hoax.

First, hoaxes and satires are both strategies designed to redress power imbalances between conflicting cultural factions:⁵ conservatism versus liberalism, elite versus middle class, or in the case of Swift's hoax, science versus

astrology. Second, although satires are responses to entrenched cultural programs and values, the satire itself is resistance, a guerilla tactic of exposure and explosion, not a method of achieving closure. Closure is superimposed on the satire by readers with counter-establishment agendas.⁶ Thus, a satire such as *A Modest Proposal* is not really a proposal or solution at all. Rather, it performs the cruelty of the establishment (British land-owners in Ireland) without offering any strategies for redressing the grievances of the Irish;⁷ those strategies must be brought to the reading experience by Irish reformers and other readers who subscribe to antiestablishment ideologies. Similarly, hoaxes also refuse to tie controversial issues up neatly for their readers. For those readers who “fall for it,” the last stroke of a hoax such as Swift’s almanac is to embarrass them by revealing itself to be a fake. Once the hoax has thus embarrassed its readers, it is done. It offers no closure, no antidote or resolution to their discomfort. It does not tell them how to stop believing in astrology or what to believe in instead.

Third, Griffin points out that a satire such as *Gulliver’s Travels* has a parasitic relationship with the textual genres it imitates,⁸ popular travel narratives in this instance.⁹ A satire makes fun of a genre or a person by exaggerating the contours of its target’s conventions or character. The reader of the original genre recognizes both the correspondences between the target genre and the satire, and the departures; the gaps provoke the laughter, a reaction to lack, desire, difference. This same dynamic certainly holds for a hoax such as Swift’s almanac, which targeted and imitated perhaps the most widely read genre of the time.¹⁰

Finally, satire is designed to display the genius of the satirist.¹¹ So is a hoax, which is one reason why revelation is so crucial to the hoax’s effect on the reader. Nothing in Swift’s text revealed it to be a hoax; rumor later outed Swift as the author of both the almanac and the obituary. Undoubtedly, the reputation as a wit that this hoax and his other satires built for Swift must have motivated him powerfully, for his indirect criticisms brought him censure and even imprisonment. However, what is interesting for this project is the fact that a huge part of the action of Swift’s hoax—the revelation—occurred outside the text, which is where we must look in order to distinguish hoaxes from satires.

To tease apart the rhetorical effects of these two genres, it will be helpful to apply the approach of Kaufer and Carley and consider not just the texts of satires and hoaxes, but their status as events that instantiate communicative communities—communities comprised of an author, readers, a medium, a topic/issue, and groups indirectly influenced by the communicative event. From this perspective important disjunctions between satire and hoaxing appear. Most important, a hoax is distinguished from a satire by its singling out its readers for criticism—not just Parliament or Irish landholders or an astrologer. Unlike a satire, which constructs author

and audience as united in an act of indirect social criticism, a hoax constructs an agonistic relationship between readership and author. The whole point of a hoax, in revealing its artifice, is to embarrass its audience into admitting the inconsistency or poor foundation of its assumptions about what holds true in the world—much like the crux of instructive embarrassment or *elenchus* that was the goal of Socrates's dialectic method.¹² Hoaxes can of course have educative results, but their refusal to offer their embarrassed readers closure by telling them what they can do to alleviate their embarrassment limits further comparison with Socrates's method.

A second distinction between a satire and a hoax is that they are arguments at different stases. Stasis theory is a classical system for structuring forensic (courtroom) arguments, adapted by Jeanne Fahnestock and Marie Secor to the analysis of scientific, civic, and literary discourse. The ancient Roman legal system recognized levels or stases of inquiry into a case that are reminiscent of the "Who, what, when, where, why, how" guidelines of journalistic presentation. "What happened, if anything?" provokes argument at the stasis of existence. "What sort of thing was this happening?" takes the argument to the stasis of definition. "What are the causes of this happening?" addresses the stasis of cause. "Was this a worthy or an unworthy action?" promotes the argument to the stasis of evaluation. And "What should be done about this situation?" brings the argument finally to the stasis of action.¹³ A purely text-based, nonrhetorical view of satires and hoaxes might rank them both as evaluative arguments. But only a satire is principally an evaluative argument, designed to call into discussion the goodness or badness of a person, style, genre, or policy; a hoax is an argument at the stasis of existence, playing on the question of whether some happening—or, actually, a reliable witness to that happening—holds true in the world inhabited by the hoax's readers. In other words, what Swift's readers were worried about initially was the question of John Partridge's mortality, not his value as an astrologer.

Certainly, after Swift's reader was embarrassed for falling for the trick, a sort of evaluation could be inferred from that embarrassment: "Believing something just because it claims to be astrology is stupid." But that is an indirect rhetorical move of the hoax; the direct move is always to call reality and its construction into question. By contrast, "satire proper," according to Griffin, "rarely offers itself as 'objective' or documentary . . . Alerted by its generic signals, we are not likely to mistake a satire for fact, not likely to overlook its avowedly 'rhetorical' nature."¹⁴ And indeed, Swift's satire *A Modest Proposal* alerts its readers early on that it is not to be taken seriously:

I shall now therefore humbly propose my own thoughts,
which I hope will not be liable to the least objection.

I have been assured by a very knowing American of my acquaintance in London, that a young healthy child well nursed is at a year old a most delicious, nourishing, and wholesome food, whether stewed, roasted, baked, or boiled; and I make no doubt that it will equally serve in a fricassee or a ragout.¹⁵

The awful shock of Swift's implausible cannibalistic proposal steers its reader away from taking it seriously; instead, the reader makes the brunt of her angry revulsion the "cannibalistic" behavior of the Irish landlords. A hoax such as Swift's almanac works very differently. It crucially counts on at least a large percentage of its readership indeed "overlook[ing] its avowedly 'rhetorical' nature" and taking it seriously as the true report of Partridge's demise; if they do not, they do not put stock in astrology and thereby prove immune to Swift's attack later when his almanac is revealed to be bogus. The locus of the effect of a hoax is always in the reader. A reader who believes a hoax such as Swift's almanac, or Locke's reports of moon bison, actually inhabits a different world—constructed by her new beliefs about what is possible in that world—from the world of a reader who "sees through" the hoax and reads it from a skeptic's perspective. Thus, hoaxes build different epistemological worlds for different readers, and the whole *raison d'être* of the hoax is to embarrass its readership for its misapprehension of the "real" world.

Parody

Eighteenth-century Enlightenment media were also fertile ground for parodies, such as Pope's *Rape of the Lock*. Is a hoax just another form of parody, since, as pointed out above, a hoax must mimic whatever text it purports to be a true example of—whether a travel narrative, almanac, or science report?

I will argue that these genres also differ, this time on grounds of mimesis. A hoax destabilizes reality for readers, calls into question the ways in which they verify that the world they believe in is the "real" one. Therefore, anything in a hoax's style that calls attention to its textuality—such as hyperbole or punning, for example—is at least an initial hindrance to its rhetorical purpose of altering readers' realities. Moreover, attention-getting textuality is the hallmark of parody and burlesque. For these genres to achieve their critical effects, the reader needs to recognize them as texts mimicking other texts, either a whole genre of writing or a particular author's style. The *Rape of the Lock* was only funny to readers already fed up to the gills with bad epic poetry: they were familiar with the various rhetorical features Pope employed to puff up an inconsequential topic (the snipping of a lock of hair), such as the Invocation to the Muse and *deus ex machina*. Pope's exaggerated mimicry of these features constituted the bite of his poem. A century after Pope, Edgar

Allan Poe's burlesques, such as "How to Write a Blackwood Article," "A Predicament," or "Loss of Breath," similarly focus reader attention on the hallmarks of the gothic "Blackwood" fiction. Consider the opening sentences of Poe's burlesque "A Predicament":

It was a quiet and still afternoon when I strolled forth in the goodly city of Edina. The confusion and bustle in the streets were terrible. Men were talking. Women were screaming. Children were choking. Pigs were whistling. Carts they rattled. Bulls they bellowed. Cows they lowed. Horses they neighed. Cats they caterwauled. Dogs they danced. Danced! Could it then be possible? Danced! Alas, thought I, my dancing days are over! Thus it is in the mind of genius and imaginative contemplation, especially of a genius doomed to the everlasting, an eternal, and continual, and, as one might say, the—continued—yes, the continued and continuous, bitter, harassing, disturbing, and if I may be allowed the expression, the very disturbing influence of the serene, and god-like, and heavenly, and exalting, and elevated, and purifying effect of what may be rightly termed the most enviable, the most truly enviable—nay! the most benignly beautiful, the most deliciously ethereal, and as it were, the most pretty (if I may use so bold an expression) thing (pardon me, gentle reader!) in the world—but I am always led away by my feelings.¹⁶

Compare this hyperbolic catalogue of tropes typical of the sensational fiction Poe himself wrote for *Blackwood's Edinburgh Review* to the opening of his self-described media hoax Hans Phaall:

By late accounts from Rotterdam, that city seems to be in a high state of philosophical excitement. Indeed, phenomena have there occurred of a nature so completely unexpected—so entirely novel—so utterly at variance with preconceived opinions—as to leave no doubt on my mind that long ere this all Europe is in an uproar, all physics in a ferment, all reason and astronomy together by the ears.¹⁷

Certainly both the burlesque and the hoax open with an excited and exaggerated tone. But the burlesque draws attention to its artifice immediately with its ludicrously repetitive hyperbole. Hans Phaall, even though it is far and away the coyest of Poe's hoaxes, does attempt to salvage its guise as a news story with impersonal third-person narration, science journalism jargon such as "by late accounts" and "phenomena," and

an implicit argument that the story is true, as it will soon have “all Europe . . . in an uproar.”

It is this argument for the truthfulness of the material presented that marks a primary difference between hoaxes and parodies/burlesques. The focus on textuality and/or style in burlesque and parody serves to shift the reader’s attention away from the truth status of the events reported in the story; for example, believing there actually was a drowning baby, a heroic diver, or a tortuous affair is irrelevant to appreciating Poe’s “Assignment.” The story is parodying the Byronic pose and Byron himself.¹⁸ By contrast, what is at stake in a hoax such as Hans Phaall or Swift’s almanac, what is salient to the audience and what they must decide upon, is not primarily who is being pilloried in the story, but whether the events portrayed in the story really happened or not. As a result, hoaxes often have a very low-key or dry style in order not to distract the reader from the content. In his study of Twain’s and De Quille’s journalism in Nevada, Wilbur S. Shepperson identifies exactly this “stylelessness” as the hallmark of the indirect social criticism seen in their hoaxes; the lack of style performed the profound moral and cultural lackings they observed in the mining boomtowns in which they lived.¹⁹ To sum up, what comparison with parody and burlesque reveals about the hoax is that a hoax resists textual definition by effacing (at least initially) its own textuality and authorship.

Nineteenth-Century Fraud, Tall Tales, and Science Fiction in America

The differences in media hoaxing in the hundred years between Swift’s and Defoe’s hoaxes and the scientific hoaxes that catalyzed this project are striking. Not only are the eighteenth-century hoaxes few and far between, but they are also published in pamphlet form and reflect the concerns of the English at the time with travel and foreign relations. Hoaxes in nineteenth-century American news media, however, reflect the concerns of a new republic that is finally getting up a good head of steam, literally as well as figuratively; thus, industry and technology, politics, and the scientific wonders being discovered on a daily basis on the new continent all loom large in hoaxes of this era. Antebellum hoaxes, in further contrast to Enlightenment media hoaxes, also had at their disposal well-developed print media, including the important additions of the literary monthly and the penny daily. These advances partially account for the proliferation of hoaxing in the decades before the Civil War, as will be discussed shortly. But before we turn to the cultural kairos that fostered the explosion of antebellum hoaxes, it pays to distinguish hoaxing from a final crop of similar genres that sprang up at this historical moment in response to similarly industrial stimuli: the fraud, the tall tale, and science fiction.

Warwick Wadlington in *The Confidence Game in American Literature* pinpoints the midnineteenth century as the heyday of the con man. Certainly several of the same dynamics that favored hoaxing favored fraud: a population boom that forced Americans to start doing business with strangers, whether they liked it or not; a westward-racing frontier that exposed new jaw-dropping astonishments every day with which law enforcement could scarcely keep up; and competition for resources among immigrant groups and socio-economic classes. Why are the frauds these con men (and women) perpetrated not hoaxes, then, if they are responses to similar tensions, and they both involve the duping of large numbers of people? Steven Mailloux, during his analysis of the trope of conning in *Huckleberry Finn*, explains exactly how he believes a fraud goes beyond a hoax: “[T]he confidence man is not interested in simply performing tricks for the fun of it. He plays his game for a reason, seeking to turn rhetorical exchanges into economic ones, to transform impassioned rhetoric into cold cash. The confidence man thus attempts not only to convince, to affect belief, but also to modify actions for his own benefit.”²⁰ These mercenary concerns of fraud are probably the easiest fracture to identify between hoax and fraud. Hoaxers are after their readers’ assumptions; frauds are after their cash. Certainly, hoaxers are interested in a payoff, too, in the subscription rates that come with publicity and notoriety. But hoaxers must reveal their hoaxes to embarrass their readers and launch their social critiques. Frauds avoid revelation and hope that the naïve assumptions that encouraged you to give them money will remain in place so they can dupe you again.

A critic of this distinction between hoax and fraud might legitimately point to the first hoax mentioned in the *OED*. The Great Stock Exchange Hoax of 1814, while not a media hoax, was all about money. A man dressed as a British soldier landed in Dover and traveled to London announcing the defeat of Napoleon. It took a few days for Londoners to get word that, in fact, Napoleon had defeated Blücher, and in the meantime, the news of victory caused a boom in the London stock exchange. As it turned out, the soldier was in the employ of two MPs and a financial adviser, who all profited from the spike in stock prices by dumping their shares. The revelation of the trick was the last thing its perpetrators wanted, so it seems this was a clear-cut case of fraud, rather than hoax, but the fact remains that contemporary commentary labeled it a hoax.

What is to be done with this historical assessment? If I declare these contemporaries inadequate rhetoricians and relabel the Great Stock Exchange hoax a fraud instead, I risk stepping off the folk foundations of this definitional project and rendering it circular—a hoax is defined as I define a hoax. What the historical judgment reminds us of is the fact that money and belief are not always such different commodities. The media hoaxes examined in this project were also about money as their authors made a living

selling them to newspapers and magazines. The most famous American hoaxer of all, P. T. Barnum, made piles of money by making people want to see for themselves if the Feejee Mermaid were the “real thing” or not.

The best solution to this historical dilemma is to acknowledge two important differences between the goal of my project and the goals and judgments of the 1814 British media. First, my goal is to define a rhetorical genre, while the purpose of the 1814 reporters was to pass judgment on a public crisis. Beginning with the sense of shock and reality inversion apparent in commentary about the Great Stock Exchange hoax, I am continuing to refine that sense into a model of how a historical hoax works *rhetorically*. That disciplinary evolution may actually be mirroring the ontology of hoaxing and fraud in the nineteenth century, pointing up a second difference between the Great Stock Exchange hoax and the more recent scientific media hoaxes. The two phenomena are substantially separated from each other by time, space, economy, and medium. It is probable that as hoaxing proliferated after the 1830s in American newspapers and as both British and American economies expanded to the point where people were forced to trust their money to strangers in shops and banks, hoaxing and fraud became increasingly distinct from each other as people accumulated experience with both forms of industrial-age deception. After all, these two different labels persist in the language today in order to identify two different social activities. In the end the best litmus test, I believe, for distinguishing hoaxing as a rhetorical genre from fraud is the presence of an indirect message. All of the media hoaxes in this book mounted an indirect criticism of the way the American public was assimilating scientific knowledge. By contrast, the Great Stock Exchange hoax (rhetorical fraud) was not designed to send a message but rather to make a quick fortune for its perpetrators.

The boundaries between hoaxes and the tall tales popular on the mid-nineteenth-century frontier are even trickier to nail down than the boundaries between hoaxes and fraud, if that is possible. Tall tales are the oral forerunners of hoaxes. This inheritance will be examined in greater depth in chapters 4 and 5 on the western hoaxers, but for now we can note that both tall tales and hoaxes play on the existence or witness of a remarkable phenomenon and that audience judgments about the verity of this phenomenon can serve to separate knowledgeable insiders in a community from impressionable outsiders. This dynamic holds when tall tales are told by a conspiratorial group of locals to a tourist in order to demonstrate his/her outsider status, as in chapter 34 of Mark Twain's *Roughing It*, in which frontiersmen fool a “city-slicker” lawyer into arguing a fake property-rights case about a landslide that moved one ranch on top of another.

A crucial distinction between tall tales and hoaxes lies once again outside the physical text in the medium of transmission. Tall tales are an oral

genre, whereas hoaxes rely on the relative distance and anonymity of print to fool their readers. Also, fooling people is a relatively uncommon function of the prototypical tall tale. Ormond Seavey in his analysis of Richard Adams Locke's Moon Hoax says that usually "both the deadpan teller of the [tall] tale and his impassive listener [are] conspirators against reality."²¹ The "conspiracy" aspect of this description of the tall tale implies it is a joint activity between teller and hearer designed to entertain and distract both of them from daily worries. Whether or not the events of the tall tale actually happened is beside the point in an archetypical tall tale such as the "Pecos Bill" tall tales popular in the later nineteenth century where Bill breaks tornados like bucking broncs. A comparison of one of Mark Twain's tall tales with one of his hoaxes illustrates the differing emphasis on truth-value. The authenticity of the talkative old-timer and the lead-burping frog in "The Celebrated Jumping Frog of Calaveras County" is not what is remarkable about the story; the humor of the situation is. The central claim of Twain's news hoax *The Petrified Man*, that a human being was found petrified outside Virginia City, is a scientific claim whose truth-value must be assayed. Twain also claimed to have had in mind with *The Petrified Man* the very "unconspiratorial" aims of humiliating the local medical examiner and shaming his readers, to boot, for their naïve fascination with all things fossilized.²² This is not a conspiratorial group of insiders putting on an outsider but rather a single journalist multiplying a practical joke through the mechanics of print into a hoax that targets his whole community. These comparisons reveal that while a hoax and a tall tale both call reality and its construction into question, the tall tale is an oral genre emphasizing conspiracy, but a hoax operates at the expense of its readership.

Finally, a hoax is not science fiction. The plausibility of this distinction may seem odd at first glance, since the media hoaxes under consideration take scientific and technological topics at the very moment in the history of American literature when the first science fiction stories were being developed. Edgar Allan Poe, in fact, is still considered a pioneer of science fiction as well as a hoaxer.²³ Science fiction, like the scientific media hoax, attests to the ripple effect in literary communities of the increasing social power of science in antebellum America. The function of science fiction is to dramatize both the best and worst case scenarios of allowing science to dictate social policy. Because of this function, science fiction critic Bruce Franklin claims that the genre helps popularize scientific ideas, that is, inculcate them as moral and social values in lay culture.²⁴ However, since science fiction by definition does not lay claim to being a true witness to the present or future state of science, it differs significantly from hoaxes, which do initially claim to be reports of the real state of affairs in the world. This difference is nearly invisible in the physical text, as a comparison between the language of Poe's science hoaxes with the language of science fiction

stories written by his near contemporary, Fitz-James O'Brien, will reveal in chapter 3. Poe and O'Brien wrote stories on the same topics; however, Poe's were published in news media, and O'Brien's are published in literary magazines, so O'Brien's stories never created a public stir over their truth-value. This powerful effect of different expectations about different types of media will help drive our analysis of a hoax's changing interaction with its readership over time and space.

Kairos

As is observable from the history of hoaxing above, the hoax is a relatively recent rhetorical innovation, dating from the eighteenth century. The hoax, then, is an industrial genre, and this label is more than a temporal indicator. To achieve its effect on readers, American scientific media hoaxing had to wait on certain structures of material and social culture that finally snapped into alignment in the 1830s. Hoaxes could only occur in the *kairos*, or rhetorical opportunity, created when writers felt the need to interfere in the process of scientific truth becoming public truth in America. Principal among these structural elements that opened up the *kairos* were these two tensions, both intensified by the American Industrial Revolution: the social tension between the cultures of science and letters played out in the media; and the tension between popular and specialized sectors of the American reading public.

Science and Art

Poe, Richard Adams Locke, and the other media hoaxers at the heart of this book represent the mere crest of a wave of scientific hoaxes inundating nineteenth-century America—such as Maelzel's chess-playing automaton, the Kinderhook Plates (mimicking Joseph Smith's golden scriptures), and P. T. Barnum's myriad artifactual hoaxes, including the Feejee Mermaid. All these hoaxes reflected the intense and very public activity of science and technology in American culture. The Industrial Revolution in Jacksonian America fed (and was fed by) a rapid expansion in both theoretical and applied science, especially in the engineering fields and in the natural sciences of botany and geology. The natural wonders of the American continent, continually paraded before the public eye by expeditions like the United States Exploring Expedition in 1838, provided a seemingly limitless body of data for measurement, cataloging, classification, and publication. In addition, publicly visible and useful technological innovations in the first third of the nineteenth century, such as the railroad, paved streets, and gas lighting, created a clamor for more research and development of labor-saving inventions. The "embarrassment of riches" of natural specimens and data—coupled with incessant nagging from citizens, business, and the government to make scientific research pay off for the public—placed a

huge burden on American scientists. At the beginning of the century, scientists were either amateur landowners and clergy who had time to dabble in whatever scientific fields suited their fancy or scientists in the employ of universities such as Harvard or Yale, whose time was divided between teaching and keeping up with their personal researches on the side. The pressure of the data and the public eventually became too much for amateur scientists, so they began in the 1820s to specialize and professionalize in order to organize the workload facing them.

The professionalization of American science also had a political agenda, to mount a patriotic, Jacksonian effort to catch up to the older and better-developed European sciences.²⁵ Gradually, a professional American culture of “science” coalesced—actually a conglomeration of specialized societies in biology, geology, physics, chemistry, botany, and even phrenology and “magnetism” (mesmerism)—and drew scientific activity out of the view of the lay public. Dabblers and amateurs dropped out, unable to meet the expectations of the new scientific societies. These societies began to publish specialized journals for circulation among their membership. Only a few “general” science journals remained to communicate the real business of science to the lay reader, signal among them Yale scientist Benjamin Silliman’s *American Journal of Science*. But these journals, too, often employed jargon and assumed a level of education not universally found in the lay readership.

At the same time this withdrawal was going on in scientific culture, a similar mechanism was at work in the culture of American literature. Increased efficiency of both human and machine labor in America created a publishing boom in the 1820s and 1830s as printing suddenly became faster and cheaper. The Koenig steam press, invented in 1823, probably represents the most significant advance in this department, along with the Fourdrinier process of paper making, developed in 1799, and the cylinder press, which the London *Times* began using to increase its production in 1814. All these innovations had a striking effect on American publishing. In 1825, about one hundred magazines were published nationwide. In the next twenty-five years, that number would increase 600 percent.²⁶ Book publishing, too, went through a growth spurt, especially toward the middle of the century, according to Frank Luther Mott’s account in *A History of American Magazines: 1850–1865*. In the years between 1850 and 1862, the number of books printed in the United States increased by 400 percent.²⁷

This development of the print industry, especially the magazine boom, was the first major surge in truly “American” texts as compared to the previous American reprints of European texts. Universities and magazine publishers in particular began to see a need for a critical community and apparatus to cull a “quality” American literature from the landslide of new texts. Accordingly, a series of university-funded literary magazines

such as the *Putnam Monthly* and the *Atlantic Monthly* were begun and immediately created a readership that was unabashedly Brahministic.²⁸ Edgar Allan Poe was actually close to the vanguard in this tradition. He abhorred “puffery,” the jingoistic tendency he noticed among literary “critics” in the 1830s to claim that anything written by an American author was good simply by virtue of its provenance.²⁹ As editor of journals such as the *Broadway Journal* and the *Southern Literary Messenger*, Poe became famous for “broad-axe” criticism—reviews that mercilessly cataloged the flaws of American books and called for standards of criticism that would distinguish a genre of American letters from the “rabble.”³⁰ In this way, the publishing industry in America, the writers it paid (off and on and poorly), and the magazine editors who relied on this industry for content to fill their pages began to form their own community just as specialized and perhaps even more openly antipopulist than the professional scientific communities.

Then the trouble started. As a narrative convenience, we may date it from the publication of Charles Lyell’s *Principles of Geology* in 1830–1833 and his 1841 lecture tour in the United States.³¹ Lyell’s *Principles* suggested a new chronology for geologic history, argued against catastrophic events such as Noah’s flood as major geologic processes, and argued for Hutton’s view that the earth was much older than traditional estimates keyed to biblical genealogies. Lyell created an uproar, not just between clergy and scientists but between and within scientific and literary communities as well; for, to characterize the *Principles* controversy as a mere matter of science versus religion is to overlook the foundation of American public thought in the textual authorities of the Bible and the Word of preachers, writers, politicians, and philosophers. Lyell essentially suggested that Truth was not to be sought in the Word, but in the World, through the seemingly antitextual activities of observation and calculation.

Men and women of letters reacted strongly but variously to this basic claim. Some, including notably Melville and Hawthorne, saw little less than the death of the human soul in scientists’ methods. Others, such as Emerson, transformed an initial resistance to scientific methodology into a nearly rapturous embrace—catalyzed by a life-altering afternoon in the natural history collections in the Jardin des Plantes in Paris—of science as a truth-seeking epistemology on par with the Word and the imagination.³² Scientists, for their part, perhaps sensing an opportunity in the fracas to expand their political power and garner more funding for their research, borrowed the trope of “progress” from a rapidly industrializing society they had helped create. They used it to argue that the way they saw things was simply the way things were headed, and soon Americans would be forced to see them that same way. There was no escaping either Nature or Progress.

In the debate, each side had help. Science had spectacle in its corner. Past the mind's eye of the public danced visions of Louis Agassiz's gorgeous books full of color plates of turtle specimens, P. T. Barnum's natural wonders in his American Museum, and public exhibitions such as the microbes visible under a new "hydro-oxygen" microscope on a tour of New York museums during 1835. In addition to these tantalizing material displays, scientists could also lay claim to a myriad of technological innovations that their researches authorized, if not actually created. However, these innovations partook in a fierce industrialization of both city and countryside that left many Americans overworked, worn out, and nervous about what machines might do to them. Public literary representatives such as Melville and Hawthorne had this fear on their side when they went public with their criticisms of scientific methods and motives. The legacy of the British romantics, who had mounted their own rebellion against an industrialization that started nearly a hundred years before the American Industrial Revolution, remained strong in the pages of novels, daily newspapers, and sermons delivered from transcendentalist pulpits in the northeastern states. The "machine in the garden," as Leo Marx has termed the presence of technology in antebellum America, was a terrifying as well as a fascinating phantom.

These tensions might be the birth pangs in America of what C. P. Snow deemed the "two cultures controversy" almost a hundred years later, in 1959—a communicative disconnect between the arts and sciences that Snow saw, in the wake of World War II, as a threat to American humanism and democracy.³³ David Kaufer and Kathleen Carley argue that the boundaries between professional communities ossify if they specialize and remove themselves from public oversight, thus exacerbating the problem of interdisciplinary rivalry. Increasing the permeability of boundaries, like the interchange Snow advocated among his literary and scientific friends, reduces confrontation over differences of values and epistemology between professions.³⁴ Nothing of this sort of rapprochement transpired in the battle following the publication of Lyell's *Principles* in the 1830s. Instead, public literary intellectuals used scientific media hoaxes to mount an attack both against scientists and against the publics who (perhaps unwittingly) supported scientists' campaign to ground America's social policy in scientific values. As we will see in the chapters on the individual hoaxers, the hoaxes were a wrench in the gears of the popularization of ideas such as Lyell's. Exploiting the public's neophytic faith in the truth and beauty of science, the hoaxes—through their dual mechanism of deception and revelation—were able to transform those assumptions into a humiliating self-awareness. The hoaxes coerced readers into admitting the foolishness of their tendency to believe anything that came stamped with the imprimatur of "science." Indirectly, the hoaxes also critiqued the scientists whose work they mimicked; in many cases the hoaxes implied via their

counterfeit that the scientists' publicizing of their work—if not the work itself—was also counterfeit.

Popular and Specialized Reading Culture

This critique by public literary figures of the mounting social power of science would not have been as effective if the hoaxers were not also able to exploit their readers' appetites for and trust in the popular media. The withdrawal of both scientific and literary discussion into specialized journals and professional societies left the lay public hungry for news of what was going on behind these closed doors and covers.³⁵ A uniquely Jacksonian social dynamic of distrust intensified this desire for knowledge and control—a fear of elite, undemocratic repositories of power hidden behind the rapidly bloating federal government, a fear that manifested itself in the 1830s in the persecution of the Masons and the disbanding of the Second National Bank.³⁶

Into this tense rhetorical vacuum stepped the genre of the popular science article, pacifying the public appetite for the most sensational of the current scientific discoveries and technological inventions with bold headlines and lots of engravings. The penny dailies sported many specimens of this new genre, and publications dedicated solely to the edification of the popular or general science reader sprang up, including the *American Journal of Science* (1818) and later the *Scientific American* (1845). These journals and papers printed renowned naturalist Louis Agassiz's latest discoveries about glaciation on their front pages but were equally likely to showcase interviews with famous phrenologists and mesmerists and accounts of hay bales mysteriously levitating into the clouds.³⁷ Catering to an audience hungry for scientific wonders and technological labor- and health-saving gadgets, these ready media platforms created the perfect stage for the scientific hoaxing of Poe, Locke, Twain, and De Quille.

Public desires constitute a powerful force driving both the form and the function of communication between scientists and lay reading communities. In *Counter-Statement* Kenneth Burke claims that any given rhetorical form both creates and satisfies desire within the reader, a desire—in the case of the “gee whiz” popular science articles of the 1830s—for identification with or control over the often alien social force of science and technology. Steven Katz adopts Burke's definition of rhetorical desire to argue that this desire for identification with science has led in this century to scientific discoveries being portrayed as epic quests and scientists as heroes.³⁸ Dorothy Nelkin in *Selling Science* finds this dynamic operating even as early as the 1890s, as popular science articles portrayed science as a “mystical” knowledge open only to nearly superhuman scientist initiates.³⁹ Extrapolating this trend back a few decades to the 1830s as the public watched science retreating behind closed

society doors, we could argue that the brand new popular science genre was simply reinforcing a Burkean loop of desire already present in the reading culture. The public desired canals and railroads and medicines to make their lives easier, and this desire drove scientists in the form of a constant social pressure; however, scientists' discoveries and inventions also sparked desires within the public for "better, faster, more" of everything.

The popular science article also represented an important transference of trust to the popular media, a shift that paved the way for the hoaxes. Newspapers proliferated in the Jacksonian era as the population in the States expanded to the point where it was impossible to witness directly what was happening in one's own community, much less in Virginia or New Hampshire. Readers came to rely on the news and the mail as vicarious witnesses to important social or political happenings. The political reporting during this time, in particular, reflects editors' awareness that they were performing an experience of virtual witness for their readers; verbatim reports of proceedings of Congress take up pages and pages of newspapers and party-published monthlies such as *The American Review: A Whig Journal*. If readers wanted the information they needed to vote appropriately and to make decisions that affected their families, they had to sacrifice eyewitness and personal credibility and to put their trust instead in the institution of the newspaper and the forms of its anonymous articles. Miles Orvell argues that this coercion of trust was reinforced by a mechanical model of social economy becoming increasingly current in America with industrialization. In *The Real Thing*, Orvell details the fascination of Jacksonian Americans with facsimiles produced by machines and argues that facsimile became an increasingly powerful trope for understanding social and commercial relationships. Stereotyping became a common way to deal with unknown social groups, as Americans adapted the model of machine replication to their social relationships. They became more and more apt to judge what they had not experienced as a carbon copy of their previous experience.⁴⁰

A further consequence of this copying mechanism in the rapidly expanding social economy of antebellum America was that transactions with institutions were gradually substituted for transactions with acquaintances—such as familiar local shopkeepers or bankers.⁴¹ Trust in people had to be shifted to trust in corporations and rules of operation. This shift, forced as it was by the material conditions of a rapidly expanding urbanized environment, created a deep unease in the public consciousness. This unease was performed in the protests mentioned above against the Masons, Rosicrucians, and National Bank; however, an industrialized corporate economy was a *fait accompli*. Even if they wished to, Americans could not shrink their society down, take the machines out of it, put things back to the way they were.

The scientific media hoaxers took shameless advantage of this coerced trust. They identified and replicated in journalistic form their readers' desires for science, technology, and mechanical facsimile. By giving readers what they wanted and then pulling the rug out from under them, so to speak, the hoaxers confirmed their readers' fears that they were being duped. In fact, the defining feature of a hoax is the moment of embarrassment.⁴² In this moment the hoax reveals its devices, which amount to the reader's own assumptions, which the hoax has exploited to achieve its humiliating effect. This revelation can come either within the reading experience or in its immediate context: Twain's hoax *The Petrified Man* revealed itself textually through sly details revealing that the petrified corpse was thumbing his nose at the reader; Poe revealed his *Balloon-Hoax* of 1844 within the reading context, by getting drunk and standing on the steps of the *Sun* trumpeting his forgery to potential subscribers. In either event the revelation crucially depended on the reader's trust in the newspapers' vicarious witness of the "real world." American society had gotten too complex for readers to be able to verify for themselves everything they needed to know in order to function in it. The hoaxes thus constitute both a sharp criticism by literary intellectuals of this state of affairs and a voicing of a deep public uneasiness with it.