Paper Moon

Nearly 170 years ago, an upstart New York City newspaper reported that an astronomer had discovered life on the moon. For days, the paper regaled its readers with tales of winged humanoids and intelligent beavers, and the public bought the story. Why did so many readers believe it?

by Paul Maliszewski

On August 21, 1835, close readers of *The New York Sun* perhaps noticed a terse announcement tucked away on page 2 regarding "astronomical discoveries of the most wonderful description." John Herschel, a British astronomer working at the Cape of Good Hope in South Africa, was responsible for these breakthroughs, and was assisted in his endeavor by "an immense telescope of an entirely new principle." The announcement—a single sentence, really—was reprinted, as was the lazy custom then, from another publication, in this case *The Edinburgh Courant*, and it ended there, without word on what the discoveries were, exactly.

Four days later, on August 25, the *Sun* made good on its tease, delivering the first of several lengthy extracts purportedly from *The Edinburgh Journal of Science* and written by an assistant to Herschel lucky enough to have witnessed the exciting discoveries. What followed was a lumpy blend of rhetorical ponderousness, technical details about the power of Herschel's telescope, invocations of the Creator and his "mysterious works," and a good bit of promotion and self-congratulation.

The article began a bit dryly, particularly for the *Sun*, which had, since its founding less than two years earlier, made local crime stories its specialty. If it bled, it led at the *Sun*, where the news was conveyed, for a penny a day, with a flippant smirk. The *Sun* prided itself on giving its working-class readers colorful tales from the streets and not the

Daily life on the surface of the moon, as depicted in this 1835 lithograph, shows the native population of man-bats relaxing in a bucolic paradise shared with an assortment of cranes, gazelles, and unicorns.

sort of daily updates on the government that they were sure to find in the more respectable, better-established six-cent papers, which they were unable to afford.

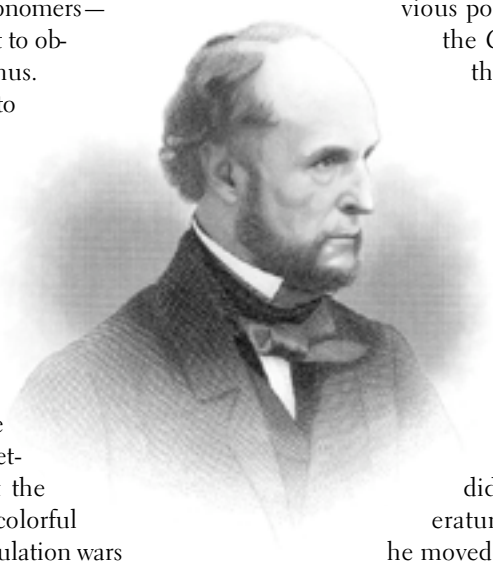
But on this occasion, if on no other, the *Sun* republished news from the world outside lower Manhattan. "We have the happiness of making known to the whole civilized world," it said, "recent discoveries which will build an imperishable monument to the age in which we live, and confer upon the present generation a proud distinction through all future time." All this sounded not unlike a tiresome introduction to a far more interesting keynote speaker, but the gist of the discoveries attributed to Herschel was, at long last, made plain: He had "obtained a distinct view of objects in the moon, fully equal to that which the unaided eye commands of terrestrial objects at the distance of a hundred yards," and "affirma-

tively settled the question whether this satellite be inhabited, and by what order of beings." In other, fewer words: Herschel had discovered life on the moon. He had seen it with his telescope. In the supplements to come, readers could expect "engravings of lunar animals." Other pictures, the paper promised, would follow.

The publication of this newspaper series is remembered even today as one of America's most elaborate hoaxes. The lone fact that helped substantiate the more outrageous passages was that Herschel was a real astronomer of popular renown who came from a family of famous astronomers—his father was the first to observe and name Uranus. The hoax was meant to be a satire, or such was the later claim of its real author, a *Sun* reporter who concocted the fictions with the blessing of his editor. The objects of that satire were overheated scientific prose and editors of competing newspapers. But the articles were also a colorful byproduct of the circulation wars that papers then fought as they tried to woo advertisers and attract readers. The *Sun*'s moon hoax might illustrate the gullibility of American audiences, which is well known by now, or the cynicism of journalists and editors, which was well known even then, but it may also suggest answers to some remarkable questions: In 1835, what did people believe? What seemed to them true or, at least, possible and even likely? What did they assume, however naively, science and technology might one day achieve?

New Yorkers lived on an island that was already, by spurts of growth and periods of rapid development, filling up and slowly expanding to the north. Canal Street, today the generally accepted dividing line between upper and lower Manhattan, was the city's northernmost street through the 1820s. By 1849, the city had moved north to 14th Street, leaving the rest of the island still covered by dense forest, with a few scattered farms and the temporary camps of those who couldn't afford housing in the city itself. When such drastic changes were unfolding daily in plain view, was it really inconceivable that a scientist would spy miraculous creatures on the surface of the moon?

Richard Adams Locke didn't think so. Locke, who was born and educated in Britain, had founded the London *Republican*, a newspaper that failed for the obvious political reasons, and then the *Cornucopia*, a magazine that folded when readers didn't warm to its mix of literature and science. In 1832, he moved to New York and quickly found ample work as a writer. Locke became highly sought after and well paid, in part because most other reporters then were printers first and writers second, if at all. For a while, Locke worked for a penny paper that competed with the *Sun* and was covering the sensational murder trial—no murder trial lacked sensation to a writer for a penny paper—of Robert Matthias, a.k.a. Matthias the Prophet, who killed one of his followers and then claimed first to be Jesus and then God himself. The *Sun*'s publisher asked Locke to write for his paper, too, on the side, and Locke agreed. In a few months, he went from writing about a fraudulent prophet in White Plains, New York, to becoming the *Sun*'s head writer, to fabricating a fake vision of the moon.



***After an unsuccessful journalistic career in England, Richard Locke gave his imagination free rein as head writer for* The New York Sun.**

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The *Sun* didn't typically publish articles on important national and world affairs. Its motto was "It Shines for All," which sounded optimistic enough and may even have been true, but the *Sun* did not illuminate all. It didn't cover partisan politics. It didn't feature long, intelligent treatments of public affairs. When Iowa and Wisconsin were admitted to the Union, the newspaper devoted three lines to the news. This was not a publication that strived, in the best tradition, to comfort the afflicted and afflict the comfortable. Rather, the *Sun* did its best to entertain the comfortable and the afflicted alike.

Still, it filled a void, shedding some light on a New York that ordinary New Yorkers experienced firsthand. At the beginning of the 19th century, most newspapers were specialized publications, tailored primarily to merchants who depended on the announcements of ship arrivals and their cargoes, as well as information on trade and commodity prices. Most of these papers could claim fewer than 2,000 subscribers. But by 1830, just before the dawn of the *Sun*, 47 newspapers were being published in New York, 11 of them dailies. The more than 270,000 people who resided in the city in 1835 enjoyed extraordinary media diversity. They could read trade papers, abolitionist papers, newspapers affiliated with political parties, a Catholic paper and an anti-Catholic paper, immigrant papers, a labor paper, and business sheets, among many others. *Freedom's Journal*, an African-American newspaper, began publishing in 1837.

Into this noisy, competitive market strode the *Sun* and its rivals, the other penny papers. Each was an upstart, and each busily tried to win readers over with lively, sometimes slang-filled writing, an intriguing headline, or a story nobody else had told. According to Frank Luther Mott, whose indispensable history of American journalism remains unequaled to this day, more than 40 years after its first publication, the penny papers owed their success to new technology—namely, faster, more efficient, steam-driven printing presses. The economic depression of 1833 also helped drive customers toward these cheaper papers. But it was their writing that made them truly popular. They steered clear of both high-toned political editorializing and the sort of dry data featured in the mercantile newspapers, finding instead a voice equal to the energy and enthusiasm apparent in the fast-growing city of New York.

The *Sun* splashed its stunning announcement of life on the moon across the front page. But the paper's editors treated the scoop as if their readers would be in no great rush to get to it, letting them dive instead into a bewildering, almost interminable description of Herschel's second telescope (the first was cracked), how it was constructed, what, exactly, it was made of, and how it differed from his father's, which he had inherited. The article made time also for leisurely forays into such arcane subjects as the history of telescopes, the history of astronomy, and the universe as it was then known. It's hard to imagine Locke, the unsigned mastermind behind the hoax, establishing the credibility and authenticity of his science fiction any more slowly. His moon hoax moved at

John Herschel was credited with building the telescope that revealed life on the moon.

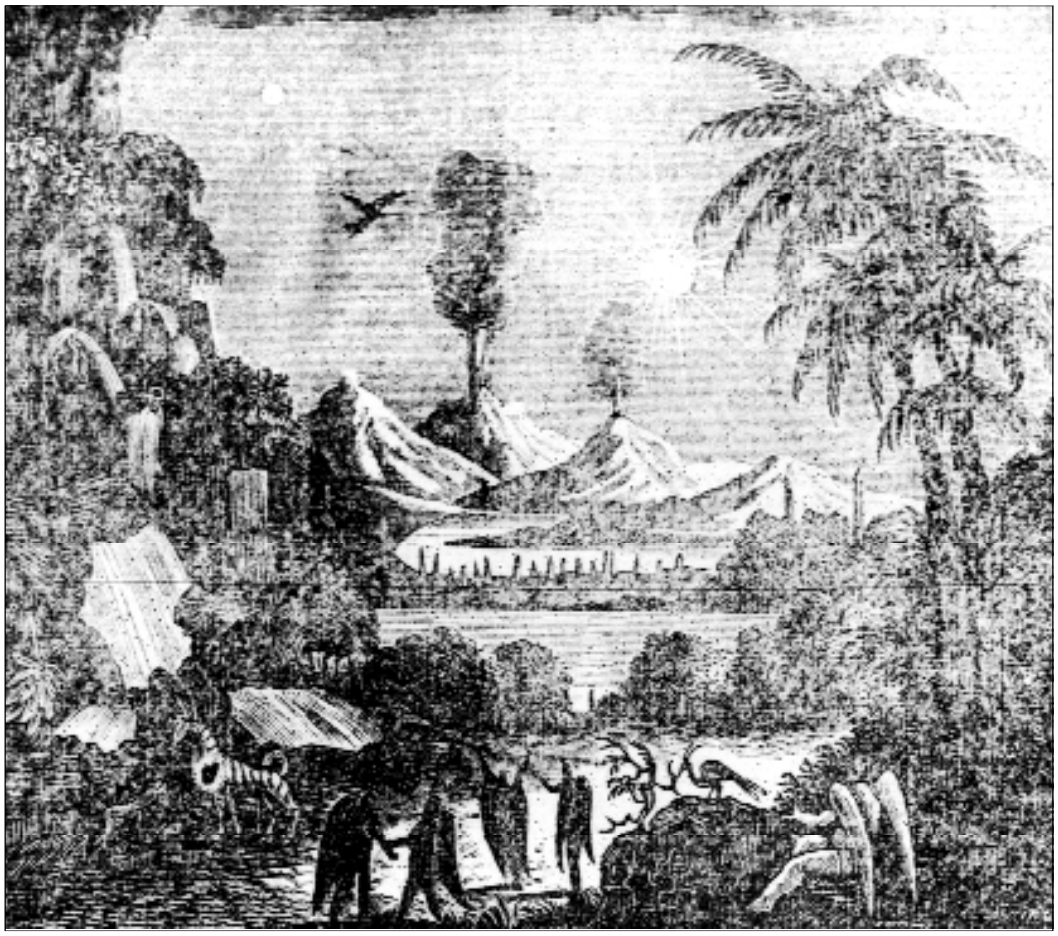
such a glacial pace—and the writing is so apparently sound and sober—that readers of the day likely found it difficult to recognize that they were being teased at all, let alone completely had. And so, in that first dispatch, on August 25, Locke stuck to the seemingly factual, disclosing, for example, that Herschel's telescope measured 24 feet across. It weighed "nearly seven tons after being polished" and had a magnifying power of 42,000 times—enough, according to the article, to reveal "objects in our lunar satellite of little more than eighteen inches in diameter." Further details about any actual lunar discoveries remained few, until the following morning's edition.

By then, the *Sun* had acquired quite a readership, overwhelming its team of newsboys and taxing its printing presses. The *Sun* took "scrupulous care" to correct its earlier report, explaining that the Herschel telescope had in fact cost £70,000 and not $70,000—thus cleverly reinforcing the larger story's credibility, observes Ormond Seavey, a George Washington University English professor, in his 1975 introduction to a reprint of Locke's moon hoax. As Herschel and his assistants panned that considerably pricier telescope across the surface of the moon, what they saw was breathtaking, a wilderness idyll. A broad green plain gave way to a deep forest with trees unlike any they had seen—except, one assistant suggested, for "the largest kind of yews in the English churchyards." One discovery followed on the heels of another. The narrator—allegedly a junior scientist and member of Herschel's team who had recorded the group's observations for the benefit of the scientific community—was ecstatic. "Then appeared as fine a forest of firs," he said, "unequivocal firs, as I have ever seen cherished in the bosom of my native mountains."

Not all the moon's flora was so familiar. Herschel, according to the account, discovered a long chain of slender, obelisk-shaped pyramids the color of lilacs that stretched for 30 to 40 miles. His assistants thought them architectural, the bold monuments of a new race of people, but the senior scientist, soberly and quite reasonably, pronounced them "quartz formations," no doubt from the "wine-colored amethyst species." The formations measured between 60 and 90 feet tall. None of the scientists had ever seen such crystals, but they kept their heads, took notes, and made observations, sticking as best they could to the scientific method. Locke, who studied science as an amateur, permitted his narrator a few controlled lyrical exaltations, but always steadied these emotional, highly charged moments with more even-keeled passages informed by reason, logic, and scholarship.

On a lunar beach, while Herschel and his team watched, a "strange amphibious creature," perfectly spherical in shape, rolled into and out of the telescope's frame. Not far away, in "a perfect zone of woods" surrounding a quiet valley more than 20 miles wide, "small collections of trees, of every imaginable kind, were scattered about the whole of the luxuriant area." Locke's narrator, breathless and excited, added, "Our magnifiers blest our panting hopes with specimens of conscious existence." The scientists discovered bison in that perfect zone. They resembled the bison on Earth, except that they were slightly smaller and had a "fleshy appendage over the eyes." Locke has his fictional Herschel hypothesize that the cap must protect the lunar bison from "the extremes of light and darkness." It stood to reason; other creatures, after all, were similarly equipped. Not far away, in the same valley, a blue goat ran and sprang about like "a young lamb or kitten." The scientists derived "the most exquisite amusement," watching the goat and its playmates come into view. The telescope supposedly cast images of all these wonderful discoveries onto a large screen, much in the manner of an invention that wouldn't appear for another six decades, the movie projector. Scientists played at catching the image of a particularly agile goat, "attempting to put our fingers upon its beard," only to see it "bound away into oblivion, as if conscious of our earthly impertinence."

Even more extraordinary details followed in the third report, published the next day, and readers in greater numbers flocked to the paper to read it. They found sto-



The New York Sun ***later elaborated on its hoax with this fanciful lithograph of the lunar landscape.***

ries of volcanoes, and glimpses of more bison, a larger species it seemed, red and white birds taking wing, long-tailed birds assumed to be like golden and blue pheasants, moose, elk, a small reindeer, a horned bear, and a petite zebra, about three feet high, "which was always in small herds on the green sward of the hills." Herschel and his team identified 38 new species of trees and nine mammals in all, including a sophisticated beaver that walked upright, "carri[ed] its young in its arms like a human being," and lived in primitive but well-constructed huts. "From the appearance of smoke in nearly all of them," said the *Sun* dispatch, "there is no doubt of [the beaver's] being acquainted with the use of fire."

With the publication of the fourth and most sensational installment, on August 28, the *Sun* became the most widely circulated periodical in the world. Regular subscribers in New York City already numbered 15,440. With sales in Brooklyn, out-of-town orders, and purchases direct from the boys who hawked the freshly printed fabrications in the street, total circulation now came to 19,360. The *Times* of London, by comparison, sold 17,000 copies. In order to satisfy demand, the *Sun*'s presses ran 10 hours a day. People wishing to purchase a copy hung around outside the offices until three in the afternoon, on the mere rumor of a later reprint edition. Those who could get their hands on a copy of the new excerpt read about the greatest discovery of all: humanlike creatures on the moon. No journalist before or since Locke has buried a lead so deep.

These beings, who averaged four feet in height and had yellow faces and shocks of copper-colored hair on their heads, flew with the aid of long, thin, almost translucent wings, which they could fold neatly behind them. The scientists likened their

wings to those of bats, and named the Lunarians *Vespertilio-homo*, Latin for man-bat. The man-bats' "attitude in walking," the Herschel team reported, "was both erect and dignified." They lived in pastoral bliss, spending "their happy hours in collecting various fruits in the woods, in eating, flying, bathing, and loitering about on the summits of precipices." Locke lavished many words on the happiness of his creations. The man-bats, for example, whose beauty "appeared in our eyes scarcely less lovely than the general representations of angels by the more imaginative schools of painters," lived without apparent strife. "The universal state of amity among all classes of lunar creatures, and the apparent absence of every carnivorous or ferocious species, gave us the most refined pleasure, and doubly endeared to us this lovely nocturnal companion of our larger, but less favored world."

On the moon, the valleys were always lovely and green, and the hills, mountains, and promontories were so often described as beautiful—sometimes snow-white marble, sometimes semi-transparent crystal—that Locke's fictional young scientist apologized for "the poverty of *our* geographical nomenclature" and reflected on the difficulty of portraying the physical features in what words he had, writing, "However monotonous in my descriptions, [they] are of paradisiacal beauty and fertility, and like primitive Eden in the bliss of their inhabitants."

At a time when the United States was fast becoming more industrialized and crowded and its citizenry increasingly and bitterly divided by the question of slavery, it can be no accident that the *Sun*'s postcards from the moon became such objects of fascination. From a branching river filled with slow-moving water birds to thick veins of gold visible on the surface, there for the easy taking, to hills topped by crystals of such intense yellow and orange that the scientists supposed them on fire, every paragraph opens its own idyll and provides further evidence of a happy, flourishing pastoral society. Locke's fabrication was elaborate, but it was also wishful.

New Yorkers had good reason to betray a weakness for tales of such an Eden. Social stresses of every sort—between black and white; Protestant and Catholic; immigrants and the Europeans who styled themselves natives; gang leaders, whose members took control of the streets in June 1835, and the elected officials who depended on them for help in getting out the vote; bosses and their laborers—led to regular and often bloody confrontations. Social inequality increased each year, as the standard of living for many declined. Coal stoves, gas lights, and ice boxes were available, but remained unaffordable for most citizens, for whom oil lamps, candles, and regular trips into the uptown forest for firewood remained the order of the day. Most people in the city rented, and most renters endured close quarters, disease, and squalor, note Edwin Burrows and Mike Wallace in *Gotham* (1998), their magisterial history of early New York.

The roads were either crudely cobbled or unpaved, and traffic was unregulated, a free-for-all. Pigs ran through the streets, at liberty to root for food or eat trash. In a rare show of concern about sanitary conditions a few years before the *Sun*'s moon hoax, city officials corralled the hogs, which enraged their owners and touched off a conflict that boiled and cooled over two years, leading eventually to widespread rioting—a prologue to the tragic anti-abolitionist riots of 1833 (which won just the usual slight treatment in the *Sun*). Tennessee congressman Davy Crockett, not anyone's idea of an urban sophisticate, visited New York for the first time and published a ghostwritten account of his unpleasant trip the same year Locke's fantasy took hold. "I do think I saw more drunk folks, men and women, that day, than I ever saw before," Crockett wrote of one impoverished working-class neighborhood on which the *Sun* depended for readers. According to Luc Sante, the author of *Low Life* (1991), a history of the city's seamy side in the years between 1840 and 1919, Crockett also saw people whom he characterized as "worse than savages" filling the streets. They burned the straw from their beds. Their cellars were "jam full of people." Crockett quickly had enough. He turned to his guide and said, "God deliver me from such con-

stituents, or from a party supported by such."

Little wonder that, in the face of such grim living conditions, New Yorkers developed a taste for the pastoral idylls found in escapist literary fare such as James Fenimore Cooper's romantic sagas and Washington Irving's *A History of New York* (1809), a satire that nevertheless presented the young, shallow city with a deep, vibrant, nearly mythical cultural history to call its own. Locke merely had the bright idea to relocate Eden to outer space. Yes, his moon hoax was a complete fantasy, but it masqueraded as fact and relied on details that were all too easy to believe. On Earth, the numbers of bison and beavers dwindled, decimated by the fur trade. On Locke's moon, the animals thrived.

Locke's stories were widely read, and reprinted as quickly as the new pages could be set in type. The *Sun* published a special pamphlet edition in which it compiled all the articles. It sold all 60,000 copies in less than a month, at an unheard-of 13 cents per copy. Herschel's breakthroughs were debated heatedly and evaluated by a contingent of scientists from Yale College (who believed them). The articles were praised ("The promulgation of these discoveries creates a new era in astronomy and science generally") and damned, with hardly a paper passing up the chance to reprint some of the articles. One rival paper even published a parody.

Then, on August 31, *The Journal of Commerce* unmasked Locke as the author and declared his work a fraud. Other papers echoed the charges, but the hoax could not be killed so easily. Newspapers routinely denounced one another, often just for the sake of competition and the public attention that loud denunciations inevitably earned. Locke responded to the charges, rebutting them in a letter first printed in the pages of another newspaper. He insisted "as unequivocally as the words can express it, that I did *not* make those discoveries"—but did so disingenuously, as a way to fan the flames. To the *Sun*, any criticism of the moon hoax merely extended its life and increased sales. The newspaper gladly reprinted the charges of its critics.

In mid-September, after weeks of back-and-forth among the city's papers, the *Sun* broke its own silence about the hoax in order to suggest, not very helpfully, that the story had a "useful effect in diverting the public mind, for a while, from that bitter apple of discord, the abolition of slavery." In a way, the editors couldn't have been any more honest. The moon hoax had been an entertaining diversion indeed, and not just from slavery. New Yorkers had any number of bitter apples to chew on. Their apartments were in shambles and the streets ran thick with sewage. Internecine social tensions simmered, then boiled over into full-blown riots.

Though the *Sun* had willingly sacrificed any chance for a reputation built on accuracy, it continued to grow. In December 1835, when the paper reported on the devastating fire that tore through Wall Street and burned 20 blocks, sending up flames that were visible in Philadelphia, an English paper in China reprinted the article—in the aftermath of the moon hoax, the *Sun*'s stories were read the world over—but counseled its readers not to get drawn in by another trick. By August 1836, one year after Locke's first words about Herschel's wonderful discoveries, the *Sun* was publishing 27,000 copies daily, nearly 6,000 more than all 11 of the city's six-cent papers combined.

While the *Sun* came in for periodic drubbing, if not open disdain, both during and after the hoax, Locke was not without his fans. P. T. Barnum, himself no stranger to hoaxes, declared Locke's work "the most stupendous scientific imposition upon the public that the generation with which we are numbered has known."

Edgar Allan Poe was another famous, though slightly more grudging, admirer. Three weeks before Locke's first article appeared, Poe had published the first part of his story "The Unparalleled Adventure of One Hans Pfaall" in the *Southern Literary Messenger.* In the story, Pfaall builds a ship and travels to the moon in order to escape his considerable financial debts on Earth, a plot development no doubt inspired by the impoverished writer's own wishful thinking. Poe intended to continue the tale with at least one more episode, detailing Pfaall's landing on

the moon and relating what he found there. Once Locke's articles began to appear, however, Poe abandoned the story. He felt sure that Locke had read his work (Locke said he hadn't) and stolen the idea (the stories are not that similar in their detail or design). Over the years Poe backed away from his claim, but remained bitter about the attention the hoax received and continued to poke holes in Locke's shabby science, if only to illustrate how unaccomplished it was even as a piece of fiction. The telescope, Poe calculated, was nowhere near powerful enough for Herschel to see what had been claimed. Still, Poe, who could be gracious only when he really tried, did admire what Locke had made: "Not one person in ten discredited it, and (strangest point of all!) the doubters were chiefly those who doubted without being able to say why—the ignorant, those uninformed in astronomy, people who *would not* believe because the thing was so novel, so entirely 'out of the usual way.' A grave professor of mathematics in a Virginian college told me seriously that he had *no doubt* of the truth of the whole affair!"

John Herschel, the real-life astronomer who unknowingly lent his good name and considerable fame to Locke's fiction, did not learn of the articles and his supposed discoveries until weeks later. News traveled slowly then, and Herschel was working in South Africa. By the time he heard of it, the hoax had appeared in its pamphlet form in Hamburg, Naples, London, and Paris. Herschel expressed little more than amusement. His wife, Margaret, had more to say, however, writing her account of the events in a letter to her husband's aunt—also an astronomer (the whole family was forever looking up):

> Have you seen a very clever piece of imagination in an American Newspaper, giving an account of Herschel's voyage to the Cape . . . & of his wonderful lunar discoveries? Birds, beasts & fishes of strange shape, landscapes of every colouring, extraordinary scenes of lunar vegetation, & groupes of the reasonable inhabitants of the Moon with wings at their backs, all pass in review before his & his companions' astonished gaze—The whole description is so well *clenched* with minute details & names of individuals boldly referred to, that the New Yorkists were not to be blamed for actually believing it. . . . It is only a great pity that it *is not true*, but if grandsons stride on as grandfathers *have* done, as wonderful things may yet be accomplished.

Optimism such as Margaret Herschel expressed in her letter was a necessary ingredient for the success of Locke's hoax. Such hopes quiet doubts and, in doing so, make the extraordinary and fictional seem tenable. Those "New Yorkists," many of them, believed what Locke wrote. This is another way of saying that they exhibited the general capacity or, perhaps better, the desire, to believe. They trusted that science made such discoveries possible. They hoped that these wild fancies might one day be matched by reality. And they had faith that ahead lay progress, guided by the breakthroughs of astronomers, scientists, and doctors. All told, they were easy marks.

And yet, as Mrs. Herschel's letter makes clear, that same optimism fuels exploration and scientific inquiry—the hope that healing cures and marvelous inventions await discovery, and distant lands lie unmapped.

Yes, New Yorkers' hope that life existed on the moon was misplaced and ill informed. Worse, it may have excused—or made it all too easy to ignore—the squalid conditions in the country's young cities and the looming political crisis over slavery, among much else that was wrong and in dire need of fixing. Their optimism was unfounded, but it offered the slim possibility of later escape when great problems overwhelmed the few simple solutions available on Earth. That hope may, for the crass and callow, have indicated the easy way out of a messy reality, allowing idle dreamers to slip into the realm of imagination, where consequences are unknown. But hope need not be deemed so escapist or fanciful or even foolish. Rather, it might be understood as a critical impulse, call it a utopian urge, seldom remarked upon and even less respected, to make lives better and improve on what is here and known for real, and to try to form in the future a society that more closely matches Locke's pastoral idyll, where to this day the buffalo still roam. ❑