

LIFE ON THE MOON







fig. F.

L I F E
ON THE
M O O N :

SCIENTIFIC AND
LITERARY REFLECTIONS

AN EXHIBITION AT
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By Marten Stromberg and Patrick Fadely

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Phases Luna Crescentes.

Phases Luna Decrecentes.

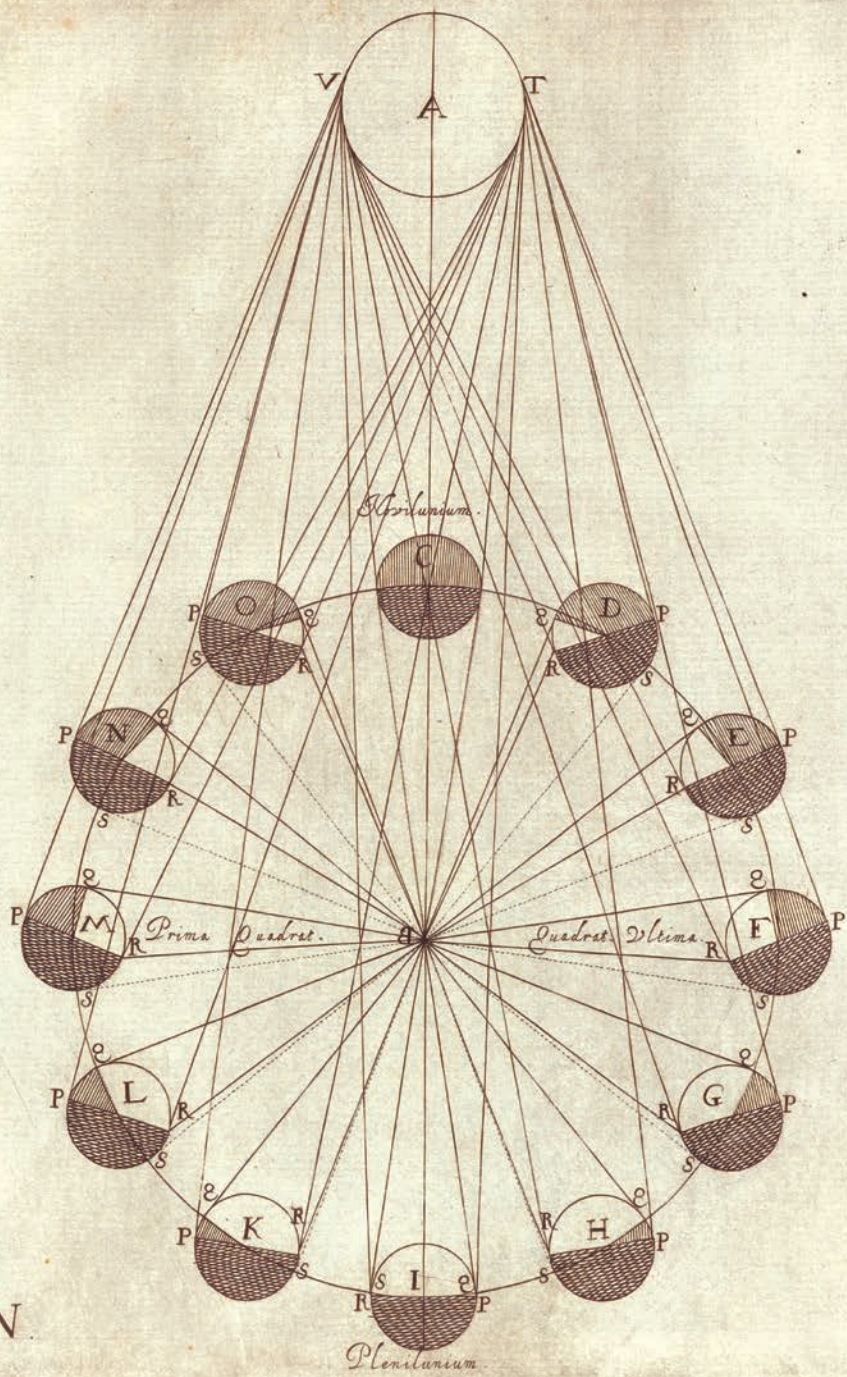


Fig N.

Aut. Sc.

the Moone souldiers that were troubled, and disordered in following the chace, & scattered in gathering the spoiles, and put them all to flight, and pursued the King into his citie, and killed the greatest part of his birds, overturned the Trophies hee had set up, and overcame the vvhole countrie that was spunne by the spiders: My selfe and two of my companions were taken alive: when *Phaethon*, himselfe was come, they set up other Trophies in token of victorie, and on the morrow vvee vvere carried prisoners into the Sunne, our armes bound behinde us with a piece of the cobweb: yet would they by no meanes lay any siege to the citie, but returned and built up a wall in the midst of the aire, to keepe the light of the Sunne from falling upon the Moone, & they made it a double wall, wholly compact of clouds, so that a manifest eclipse of the Moone ensued, and all things detained in perpetuall night: wherewith *Endymion* was so much oppressed, that he sent Embassadors to intreat the demolishing of the building, and beseech him that hee would not damne them to live in darknesse, promising to pay him tribute, to be his friend and associate, and never after to stirre against him: *Phaethons* counsell twice assembled to consider upon this offer: and in their first meeting would remit nothing of their conceived displeasure, but on the morrow they altered their mindes to these termes. The *Heliotans* and their colleagues have made a peace with the *Selenitans* and their associates upon these conditions, that the *Heliotans* shall cast downe the wall, and deliver the prisoners that they have taken, upon a ratable rancome: and that the *Selenitans* should leave the other starres at libertie, and raise no warre against the *Heliotans*, but aid and assist one another, if either of them should be invaded: that the King of the *Selenitans* should yearely pay to the King of the *Heliotans* in vvay of tribute, tenne thousand vessels of dewe, and deliver tenne thousand of their people to be pledges for their fidelitie: that the Colonie to be sent to the Morning starre, should be joyntly supplied by them both, and libertie given to any else

*The reason of
the Mooones Eclipse.*

Life on the Moon

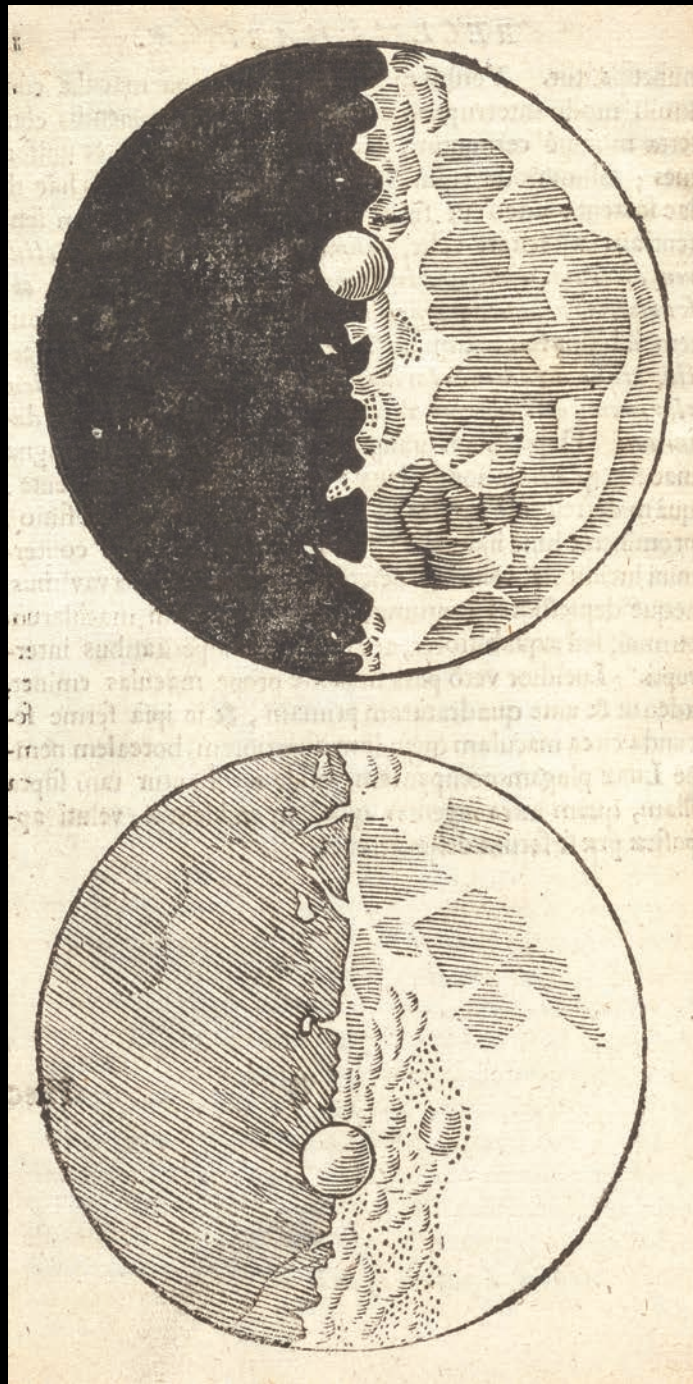
We know that the Moon is a reflective body: at night, sunlight brightens its surface and illuminates our world. But the Moon also reflects human motivations and desires, providing a world of possibility onto which humanity projects images of its own making. The books displayed here reveal a range of speculation about Earth's sole satellite. Their pages contain satire and fantasies of escape, utopian commonwealths and tyrannical kings, strange life forms and spectacular technologies. Taken together, these works tell a story about the birth of modern astronomy, the interplay of scientific observation and poetic imagination, and the development of a literature combining objectivity with fancy that forms the basis of modern science fiction.

Though humans have looked to the Moon since they began to look up at all, Lucian of Samosata's (ca. 125-180) *True Historie* is the earliest known fictional lunar voyage in the Western tradition. Parodying the travel literature of his time, Lucian sends his intrepid explorers out beyond the Pillars of Hercules where they are picked up by a whirlwind and driven to the Island of the Moon, described in the first English translation of the *True Historie* (1634, Item 1) as "a great countrie in thee aire, like to a shining Island." Upon arrival, the travelers encounter a bestiary of strange creatures, like the Hippogypians, who ride on three-headed war vultures, and meet Endymion, the handsome Greek shepherd transported to the Moon by the Goddess Selene. The fable then turns toward interstellar politics: King Endymion wishes to send a group of "poore people and needie persons" from his kingdom to colonize the Morning Star. Phaethon, king of the Sun, fears the cosmopolitical implications of the plan, and the two begin a war that is ongoing when the travelers arrive.

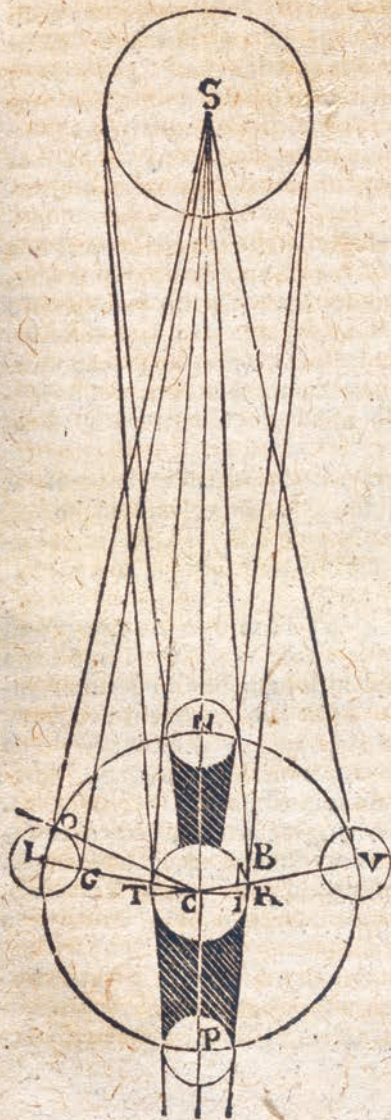
Lucian's text remains a touchstone of imaginative writing primarily because of his fanciful lunar anthropology. He describes dog-faced men and other chimeras familiar from the earthly travel literature he parodies, but some of his creations go beyond convention, achieving a visionary

prescience. One such celestial race occupies the “citie called Lychnopolis [...] seated in the aire betweene the Pleiades and the Hyades.” In this city “no man was to be seen, but lights in great numbers running to and fro,” occupied in various tasks and duties, and distinguished from one another by size and luminosity. These beings of pure light, whose “death is to be quenched,” mark a very early attempt to imagine and describe forms of intelligent extraterrestrial life radically different from our own.

From Lucian’s time until the invention of the telescope in the early seventeenth century, knowledge of the Moon’s topography was limited to what could be seen with the naked eye. Debates persisted among astronomers as to why areas of relative brightness and darkness appeared on the lunar surface: were they shadows cast by Earth’s mountains, or was the Moon itself another earth, with a geography of its own? Prompted by questions such as these, Galileo Galilei (1564-1642) designed and constructed a telescope of twenty-times magnification and turned it toward the night sky. Over the course of a year he observed the Moon and other celestial bodies tirelessly, gathering the data that would comprise his 1610 treatise, *Sidereus nuncius* (*Starry Messenger*). The importance of the *Starry Messenger* in the history of lunar writing is difficult to overstate, since it heralded the arrival of telescopic technology in astronomy, and also inaugurated the discipline of selenography, the scientific description of the Moon’s surface. With the aid of his telescope, Galileo proved to a certainty that the Earth’s satellite was not a smooth orb cloaked in shadows; it had a rough and uneven surface like the Earth. Perhaps most remarkably, the *Starry Messenger* offered proof that our moon was not unique: other celestial bodies had satellites similar to Earth’s. Indeed, Galileo observed no fewer than four such moons in orbit around Jupiter. This discovery is emblematic of the rapid expansion of the observable universe in the wake of telescopic astronomy. It was also an iconoclastic observation, wholly incompatible with the geocentric cosmic picture upheld by the Church, in which all celestial objects orbit around the Earth.



Galileo's telescopic observations of the Moon were depicted in etchings printed in the *Sidereus nuncius*. (Item 2)



114. Tarditas est à constitutione Lunæ in Apogæo; & Privolvarû medij habent noctis medium eo tempore, quo nobis terricolis plenilunium videtur. Si ergò coeunt Luna plena & Apogæum; Privolvis est nox cumulâtè longa; sin nova Luna in apogæo sit, Privolvis dies nocti magis æquantur, causis contrarijs se mutud perimentibus.

115. Si viventia ponis Lunam inhabitare, concedes eis sustentandis & fovendis etiam evaporationes ex corpore Lunæ; vapor verò tenuis, frigore circumventus, cogitur in scobem nivofam, quæ formatio est pruina.

116. In somnio libertas requiritur comminiscendi quâdoq; etiam ejus, quod in sensibus nunquam fuit. Ita hîc ponere oportet, ventos existere ex eo, quod globi obveniunt auræ atheriæ: quam causam memini me non repudiare in causis dicendis, cur tempus matutinum omnibus & animantibus & terra nascentibus sit gratius, & salubrius: itemque, cur in summis plerumque cacuminibus montium, etiam Torridæ Zonæ, nives perennent.

G 2

117. Di-

Johannes Kepler's *Somnium*. This page depicts the interaction of the Sun, Moon, and Earth in a heliocentric model. Kepler commissioned the printing of his life-long project in Sanga in 1630, but died before he saw it to completion. The book was eventually published in Frankfurt by Kepler's son Ludwig in 1634. (Item 4)

Although epoch-making, the *Starry Messenger* was produced at a fevered pace; Galileo worked night and day across 1609-1610 to record and explain his telescopic observations. For this reason, the selenographic aspects of the text are at times incomplete. Around the year 1640, Johannes Hevelius (1611-1687) designed and built a 150-foot-long telescope and trained it on the Moon, aiming to perfect Galileo's hastily-produced maps. He watched the heavens every clear night for seven years, and in 1647 collected his research in *Selenographia, sive lunae descriptio* (Item 3). The volume, which runs to over 600 pages and includes 137 engravings done by Hevelius himself, stood as an authoritative work of lunar cartography throughout the seventeenth and eighteenth centuries. In the text, Hevelius succeeded in enhancing Galileo's observations that the Moon has its own topography by providing maps of the Moon that would remain well known to astronomers for many years to come.

Johannes Kepler (1571-1630), a contemporary of Galileo, occupies a crucial position in the history of writing about the Moon. His work *Somnium* (*Dream*, Item 4), published posthumously in 1634, combines scientific description with literary imagination and thus inaugurates the speculative strain of writing about the Moon. The work originated in 1593 as a dissertation project, in which Kepler sought to make a case for heliocentrism by imagining what earthly phenomena would look like to an observer standing on the surface of the Moon. The conservative faculty at Tübingen rejected the work on the basis of its uncompromising heliocentrism, and Kepler essentially tucked his work away, leaving it untouched for the next sixteen years. He returned to work on his project sometime in 1609 after having replaced Tycho Brahe (1546-1601) as the official astronomer of the Holy Roman Empire. It was then that the text began to change into an unprecedented form of literature. Adding elements of Lucianic fantasy to his earlier scientific-descriptive project, Kepler expanded the idea of a hypothetical lunar observer, imaginatively developing “a new astronomy, as it were, for those who live on the Moon and, to put it plainly, a sort of lunar geography.”*

*Kepler quoted from a public letter. Rosen, *Kepler's Somnium*. London: 1967, xviii.

Kepler imagines different types of lunar inhabitants that live in light and darkness on the Moon's surface. He ponders how they might mark time, and what forms of animal life might arise in the Moon's extreme climate: "In general, the serpentine nature is predominant. For in a wonderful manner they expose themselves to the sun at noon as if for pleasure; yet they do so nowhere but behind the mouths of the caves to make sure that they may retreat safely and swiftly" (Rosen 28). The genius of the *Somnium* lies in the ways that Kepler uses recent discoveries to extend his imagined lunar voyage.

Though Kepler's radical vision of lunar life wasn't published until four years after his death, the 1609 version of the *Somnium* circulated in manuscript and evidently fell into the hands of poet John Donne (1572-1631). Donne responded to the text by publishing the anonymous *Ignatius His Conclave* (Item 5) in 1611. The poem satirizes many things, including the pretensions of those practicing the new astronomy. Donne names Kepler and Galileo as newcomers to a "lunatic church" on the Moon and imagines a colorful dialogue between Copernicus and Lucifer, the lunatic church's supreme authority. Annoyed with Copernicus's attempts to raise himself above the other demons, Lucifer chastises the astronomer. To this, Donne has Copernicus reply: "I am he, which pitying thee who wert thrust into the Center of the world, rayed both thee, and thy prison, the Earth, up into the Heavens; so as by my meanes God doth not enjoy his revenge upon thee [...] Shall these gates [of Hell] be shut against me, who have turned the whole frame of the world, and am thereby almost a new Creator?" Here, as throughout the poem, Donne skewers what he sees as the Promethean aspirations of astronomical innovators.

Donne was not alone in his criticisms of the new astronomy. Ben Jonson's (1572-1637) masque, *Newes from the New World Discover'd in the Moone* (1620, Item 6), first performed before King James in 1620, registers a similar conservatism. Jonson draws primarily on the classical tradition for inspiration, and appears dubious of telescopic observation and all the "new news" it heralded. (Jonson playfully dubs the telescope a "perplexive glass," a play on "perspective glass"). Although

NEWES FROM
THE NEVV VVORLD
DISCOVER'D IN THE
MOONE.

A Masque,

AS IT VVAS PRESEN-
TED AT COVRT BE-
FORE KING IAMES.

1620.

Nascitur à tenebris: & se sibi vindicat Orbis.

Enter 1 Herald, 2 Herald, Printer, Chronicler, Factor.

1 HER. **N**Ewes, newes, newes.

2 HER. Bold, and brave new!

1 HER. Newe as the night they are borne in;

2 HER. Or the Phant'sie that begot'hem.

1 HER. Excellent newes!

2 HER. Will you heare any newes?

PRINT. Yes, and thanke you too fir, what's the price of hem?

1 HER. Price, Cocks-combe! what price, but the price o' your ears?
As if any man used to pay for any thing here.

2 HER. Come forward, you should be some dull tradesman by your
pigheaded Sconce now; that thinke there's nothing good any where,
but what's to be fold.

PRIN. Indeed I am all for sale Gentlemen; you say true, I am a Prin-
ter, and a Printer of Newes; and I doe hearken after hem, where ever
they

Title page of Jonson's masque, *Newes from the New World Discover'd in the Moone*. Jonson was the most prominent practitioner of the masque, a form of occasional entertainment during King James's reign, which combined recited verse, music, and dancing. (Item 6)

THE
Comical HISTORY
OF THE
STATES
AND
EMPIRES
OF THE
WORLDS
OF THE
Moon and Sun.

Written in *French* by *Cyrano Bergerac*.

And newly Englished by *A. Lovell*, A.M.

L O N D O N,

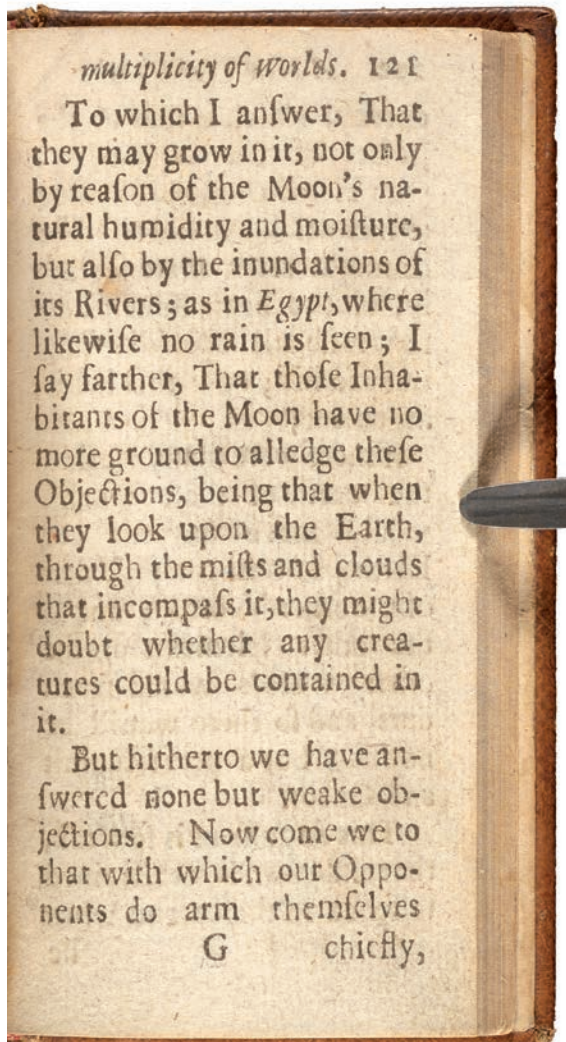
Printed for *Henry Rhodes*, next door to the
Swan-Tavern, near *Bride-Lane*, in
Fleet-Street, 1687. KH.

Cyrano de Bergerac's *The Comical History of the States and Empires of the Worlds of the Moon and Sun*. An English edition of Cyrano de Bergerac's Moon voyage of the mid-seventeenth century, published along with his voyage to the Sun. Cyrano is the first to imagine travel to the Moon by rocket. (Item 13)

the masque ostensibly celebrates the world in the Moon, “now found to be [...] inhabited,” the overall tone is urbane, as Jonson and his audience alike poke fun at the “lunacy” of others. Even so, Jonson’s work cannot be dismissed as merely reactionary. His masques featured ornate costumes and elaborate special effects of light and sound. Thus even as the audience is guided to laugh dismissively at the news of Jonson’s “lunatic” travelers, the masque relies on novel technologies to achieve its dramatic effects. Ultimately Jonson is not criticizing the goals of the astronomers, but rather the utopian fantasies to which their findings gave rise. If we dream of the Moon as a world free from pain, debt, and lawyers, Jonson seems to say, dream on.

Not all English writers were so dismissive of the possibilities offered to literature by the new astronomical discoveries. The Anglican minister Francis Godwin (1562-1633) probably wrote his *Man in the Moone: or, a Discourse of a Voyage Thither* (1638) in imitation of Kepler’s *Somnium*, a work he held in high regard. In the preface, Godwin speaks warmly of “our discovering age: in which our *Galilaeusses* can by advantage of their spectacles [telescopes] gaze the Sunne into spots, & descry mountaines in the Moone.” Godwin’s inhabitants of the Moon, whom he calls “Lunars,” are in some ways superior to humans: they speak a language of pure music, and the nobles among them can live as long as 1,000 earth-years. Still, the Lunars are not without political unrest: the short-lived, diminutive commoners are viciously exploited by an uncaring aristocracy. Godwin’s text is notable not only for its open Copernicanism (still a risky intellectual stance for an Anglican Minister of the 1630s), but also as an important precursor to later lunar travel literature, exerting direct influence on Verne, Poe, and others.

Godwin’s fiction deals primarily with the literary ramifications of the new astronomy, leaving the theological implications of plural worlds untouched. His contemporary John Wilkins (1614-1672), however, sets out to defend the notion of lunar life from its religious detractors. In *The Discovery of a World in the Moone* (Item 7) Wilkins mounts a defense by paying special attention to



Pierre Borel's *A New Treatise, Proving a Multiplicity of Worlds*. (Item 8)

the meaning of the term “world,” noting that it “may be taken in a double sense, more generally for the whole universe [and] more particularly for an inferior World consisting of elements.” It is in this latter sense that Wilkins understands the Moon to be a world: his claim does not introduce a wholly novel order of being, but rather embraces the expansion of our universe begun with Galileo’s observations. Wilkins was concerned to set celestial speculation on secure theological ground, thus guaranteeing the autonomy of astronomical science and legitimizing the belief in extraterrestrial life.

On the Continent, Pierre Borel (1620-1671) and Christiaan Huygens (1629-1695) were inspired by Wilkins to address the theological and philosophical quandaries presented by the idea of multiple inhabited worlds. Borel’s *Discours nouveau prouvant la pluralité des mondes* was published in 1657 and quickly translated into English in 1658 as *A New Treatise, Proving a Multiplicity of Worlds* (Item 8). It rehearses many of Wilkins’s ideas, adding several new lines of argument. Later, *Cosmotheoros* by Huygens

(published in English as *The Celestial Worlds Discover’d*, 1698, Item 9) collated and codified Wilkins’s and Borel’s work, becoming a standard point of reference for debate on the plurality of worlds during the Enlightenment.

Though Wilkins and his followers did much to shape later speculation about extraterrestrial life, it was Bernard Le Bovier de Fontenelle (1657-1757) whose influence spread furthest. His *Entretiens sur la pluralité des mondes* (1686) defended the notion of infinite inhabited worlds. As we have seen, such a defense was hardly novel, but Fontenelle's bravura presentation of his evidence in the form of a dialogue propelled his work to international fame. What is perhaps most unique about Fontenelle's work is his inclusion of a female interlocutor in a philosophical dialogue, a choice that reflects the author's progressive views of women's education. Aphra Behn was drawn to this aspect of Fontenelle's *Entretiens*, and produced an adept translation of the work as *The Theory or System of Several New Inhabited Worlds*, in 1700 (Item 10). In the translator's preface, Behn lists her reasons for translating the work as: "The reputation of the author [...], the novelty of the subject in vulgar languages, and the author's introducing a woman as one of the speakers in these five discourses."

Margaret Cavendish (1623-1673), a younger near-contemporary of Behn, had also used the trope of the plurality of worlds as a vehicle for her vision of an alternate society in *A Description of the New World, Call'd the Blazing World* (1666, Item 12). *The Blazing World* tells the tale of a young Lady who is kidnapped by an admirer and his hired crew. While fleeing by ship, the group is swept off course by a tempest and redirected to the North Pole. Her captors perish in the cold, but she survives "by the light of her beauty, the heat of her youth, and protection of the Gods." The North Pole, it turns out, is inhabited by bipedal talking bears and other bizarre fauna, who greatly admire this lost Lady. However, as the arctic climate is not suited to her constitution, they decide to transport her to another world, called the Blazing World. When she arrives there she is brought before the Emperor of the Blazing World, who thinks she must be a Goddess. After explaining that she is mortal, he makes her his wife and Empress and grants her absolute power over the Blazing World. The Empress of Cavendish's imaginary realm reigns supreme not only in political power, but also in scientific and philosophical knowledge, a reflection of Cavendish's own abilities as a gifted natural philosopher. Behn's translation and Cavendish's earlier utopian fiction both point to

THE
EMPEROR
OF THE
MOON:
A
FARCE.

As it is Acted by Their

Majesties Servants,

AT THE
QUEENS THEATRE.

Written by Mrs. *A. Behn*.

L O N D O N :

Printed by *R. Holt*, for *Joseph Knight*, and *Francis
Saunders*, at the *Blew-Anchor* in the lower Walk of the
New Exchange, 1687.

Title page of Aphra Behn's *Emperor of the Moon*. The play revolves around the lunacy of a gullible doctor, whose head is so filled with the wonders of life in the moon that he refuses to allow his daughters to marry anyone but moon men. Thus the play, like Jonson's masque, capitalizes on popular interest in the moon. (Item 11)

the emancipating potential which early modern women writers sensed in the notion of worlds and orders arranged more rationally and humanely than our own.

Where Cavendish leaves the Earth behind in her quest to imagine new forms of reality, Daniel Defoe (1660-1731) positions an observer on the Moon to accurately survey the socio-political landscape of his own place and time. In *A Journey to the World in the Moon* (1705, Item 14) and *The Consolidator* (1705, Item 15), he suggests that the lunar vantage point presents us with an objective view of worldly political and social life. Defoe's work ushers in a movement toward increasing objectivity in writing about the Moon.

In the years after Defoe, the dissemination of scientific knowledge fostered an environment that allowed for the scientifically detailed lunar escapades that would follow in the nineteenth century. The third edition of the *Encyclopædia Britannica*, completed in 1797, provides a good barometer for the state of popular knowledge at the turn of the century. In a section titled "New Observations on the Atmosphere, Twilight, &c. of the Moon," one finds a lengthy summary of a work by German astronomer Johann Hieronymous Schröter (1745-1816), who argues that the Moon does in fact have an atmosphere. Schröter's own interest in the atmosphere of the Moon is entangled with the possibility of life there: "The question whether the moon be inhabited? is not omitted by [...] Schröter, who observes, though it be not adapted to beings organized as we are, this is no proof that it may not be peopled with intelligent agents, endued with bodily constitutions suitable to the nature and economy of the planet for which they are destined" (264). At the approach of the nineteenth century the question as to whether life existed on the Moon remained unanswered. It was still possible to craft a plausible lunar voyage—if writers were willing to employ greater detail and scientific accuracy. In this context the direct precursors to modern science fiction, Edgar Allan Poe, Jules Verne, and H.G. Wells, would emerge.

manner of Difference in any thing Natural, except as hereafter excepted, but all was exactly as is here, an Elementary World, peopled with Folks, *as like us* as if they were only Inhabitants of the same Continent, but in a remote Climate.

The Inhabitants were *Men, Women, Beasts, Birds, Fishes, and Insects*, of the same individual Species as Ours, the latter excepted: The *Men* no wiser, better, nor bigger than here; the *Women* no handsomer or honestier than Ours: There were Knaves and honest Men, honest Women and Whores of all Sorts, Countries, Nations and Kindreds, as on this side the Skies.

They had the same Sun to shine, the Planets were equally visible *as to us*, and *their Astrologers* were as busily Impertinent as Ours, only that those wonderful Glasses hinted before made strange Discoveries that we were unacquainted with; by them they could plainly discover, That *this* World was *their* Moon, and *their* World *our* Moon; and when I came first among them, the People that flockt about me, distinguisht me by the Name of, *the Man that came out of the Moon.*

Daniel Defoe's *The Consolidator*. Here Defoe remarks that those living on the Moon see the Earth as *their* moon and refer to the protagonist as "the man that came out of the moon." (Item 15)

As technological innovation realized feats never thought possible without the aid of supernatural power, faith in science as a force of radical transformation took hold in the popular mind. Writers would be called upon to reveal the workings of their *deus ex machina* tropes, which would have to stand up to the scrutiny of their informed and skeptical readership. One odd publication that marks an important shift in this direction is Edgar Allan Poe's (1809-1849) *The Unparalleled Adventures of One Hans Pfaall*, first published in 1835 in the *Southern Literary Messenger* (Item 16) as *Hans Phaall—A Tale*. In this work, Poe describes the incredible journey of a Dutch bellows-maker, who recklessly flies off in a balloon to avoid his creditors. The story includes substantial technical detail as to what a journey to the Moon might actually be like, but essentially no account of a visit to the Moon's surface. Even as Poe attempted to maintain the plausibility, or what he called *verisimilitude*, of his scientific details, the story satirizes people who would believe such an exploit is possible. For this reason Poe includes glaring flaws and suspicious circumstances in his tale. The story ends by suggesting that the whole voyage was an elaborate hoax on the part of the unscrupulous Hans Pfaall, who was trying to escape his crimes and debts.

The publication created quite a stir when *The New York Sun*, just seven weeks later, successfully perpetrated an actual hoax based upon Poe's fictional template. They reported that the famous astronomer John Herschel (1792-1871) had discovered, with his gargantuan and innovative telescope, undeniable proof of life on the Moon. The believability of the hoax stems from its news-like presentation, references to scientific journals, and supposed quotations from other credible astronomers like Schröter, who had speculated extensively about life on the Moon. This series of six articles included preposterous lithographic illustrations of bat-like creatures that were "observed" on the Moon along with descriptions of their environs. *The Sun* even managed to convince some educated individuals, who, in all likelihood, should have known better. The whole episode reflects the faith of the nineteenth-century mind in the possibilities afforded by new technology and an increasingly uncertain view of the universe. *Hans Pfaall* quickly became affiliated with the hoax and

reader than the best of Virgil's *Georgics*. In satire, Pope was superior to Dryden, chiefly I presume, in consequence of the latter's want of leisure to perfect the reasoning which enters so importantly into that species of composition. As a translator, he was unhappy in his choice of authors. Virgil would have suited his style of genius far better than Homer. His anglicized Greek lines wear too much frippery of dress. A happy mean yet remains to be filled, between the extreme polish of Pope's Homer, and the naked abruptness of both Chapman and Cowper. There was a degree of hypocrisy in Pope's mode of publishing his letters which should be censured. (Vide *Quarrels of Authors*.)

Pope perfected the music and elegance of the English verse. Drawn out of chaos by old Chaucer; softened by Spenser; twisted into pliancy by Surrey; subtilized by Cowley; smoothed by Waller; strongly and beautifully modelled by Dryden;—it still wanted the finishing touch, and this, Pope gave. But he was more than an accomplished linguist. A skilful satirist, a touching eulogist, a philosophic tutor, and in fine, in spite of bodily infirmities, a good and amiable man,* his life was like the passage of a health-infusing river through the sands of the earth. Useful to all within reach of its influence; when the stream curdled in its bed, the loss was deeply felt. And although the poet's works remain among us, it is only as the cedar and palm remain upon the banks of the once living stream. "So good a man was he, his presence doubled their beauty."†

L. L.

For the Southern Literary Messenger.

HANS PHAALL—A TALE.

BY EDGAR A. POE.

By late accounts from Rotterdam that city seems to be in a singularly high state of philosophical excitement. Indeed phenomena have there occurred of a nature so completely unexpected, so entirely novel, so utterly at variance with pre-conceived 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 Dynamics and Astronomy together by the ears.

It appears that on the — day of —, (I am not positive about the date) a vast crowd of people, for purposes not specifically mentioned, were assembled in the great square of the Exchange in the goodly and well-conditioned city of Rotterdam. The day was warm—unusually so for the season—there was hardly a breath of air stirring, and the multitude were in no bad humor at being now and then besprinkled with

* I have been particular in noticing Pope's goodness of heart, because the devotees of Addison have spoken of him as "twisted in body and mind—as peevish as he was deformed."

† Surgeons and critics love new subjects, and the latter have so raked up from the dunghills of the forgotten past, poets (God save the mark!) innumerable. To mention in this paper the names of one half would be bringing sad company to old Chaucer and his great successors; however, the other half is made up of no mean names. *Lydgate, James I.*, of Scotland, *Skelton, Gawin, Douglass, Lord Rochford, Lord Faus, Gascoigne, Marlowe, Churchyard, Tuberville, Sir Walter Raleigh, Silester*, (translator of Du Bartol,) *Fairfax, Beaumont and Fletcher, Chapman, Carew, Quarles, Drummond, Lovelace*, (the cavalier and lover of Althea,) *Herrick, Marrel, Cotton, Walton, Lee, Shadwell*, and one or two others, I have passed over with regret.

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friendly showers of momentary duration. These occasionally fell from large white masses of cloud which chequered in a fitful manner the blue vault of the firmament. Nevertheless about noon a slight but remarkable agitation became apparent in the assembly; the clattering of ten thousand tongues succeeded; and in an instant afterwards ten thousand faces were upturned towards the heavens, ten thousand pipes descended simultaneously from the corners of ten thousand mouths, and a shout which could be compared to nothing but the roaring of Niagara resounded long, loud, and furiously, through all the environs of Rotterdam.

The origin of this hubbub soon became sufficiently evident. From behind the huge bulk of one of those sharply-defined masses of cloud already mentioned, was seen slowly to emerge into an open area of blue space, a queer, heterogeneous, but apparently solid body or substance, so oddly shaped, so *outré* in appearance, so whimsically put together, as not to be in any manner comprehended, and never to be sufficiently admired by the host of sturdy burghers who stood open-mouthed and thunderstruck below. What could it be? In the name of all the vrows and devils' in Rotterdam, what could it possibly portend? No one knew—no one could imagine—no one, not even the burgomaster Mynheer Superbus Von Underduk, had the slightest clue by which to unravel the mystery: so, as nothing more reasonable could be done, every one to a man replaced his pipe carefully in the left corner of his mouth, and, cocking up his right eye towards the phenomenon, puffed, paused, waddled about, and grunted significantly—then waddled back, grunted, paused, and finally—puffed again.

In the meantime, however, lower and still lower towards the goodly city, came the object of so much curiosity, and the cause of so much smoke. In a very few minutes it arrived near enough to be accurately discerned. It appeared to be—yes! it was undoubtedly a species of balloon: but surely no *such* balloon had ever been seen in Rotterdam before. For who, let me ask, ever heard of a balloon entirely manufactured of dirty newspapers? No man in Holland certainly—yet here under the very noses of the people, or rather, so to speak, at some distance *above* their noses, was the identical thing in question, and composed, I have it on the best authority, of the precise material which no one had ever known to be used for a similar purpose. It was too bad—it was not to be borne: it was an insult—an egregious insult to the good sense of the burghers of Rotterdam. As to the shape of the phenomenon it was even still more reprehensible, being little or nothing better than a huge foolscap turned upside down. And this similitude was by no means lessened, when, upon nearer inspection, there was perceived a large tassel depending from its apex, and around the upper rim or base of the cone a circle of little instruments, resembling sheep-bells, which kept up a continual tinkling to the tune of Betty Martin. But still worse. Suspended by blue ribbands to the end of this fantastic machine, there hung by way of ear an enormous drab beaver hat, with a brim superlatively broad, and a hemispherical crown with a black band and a silver buckle. It is, however, somewhat remarkable, that many citizens of Rotterdam swore to having seen the same hat repeatedly before; and indeed the whole assembly seemed to regard it with

some even assumed that Poe had authored the articles. In response, he republished his story along with an addendum stating that the hoax had too many flaws to be believable and that *his* story had attempted to incorporate accurate scientific facts. However, in this same edition he removed the portions of *Hans Pfaall* that poked fun at anyone who might believe such a tale, perhaps attempting to soften the critical response.

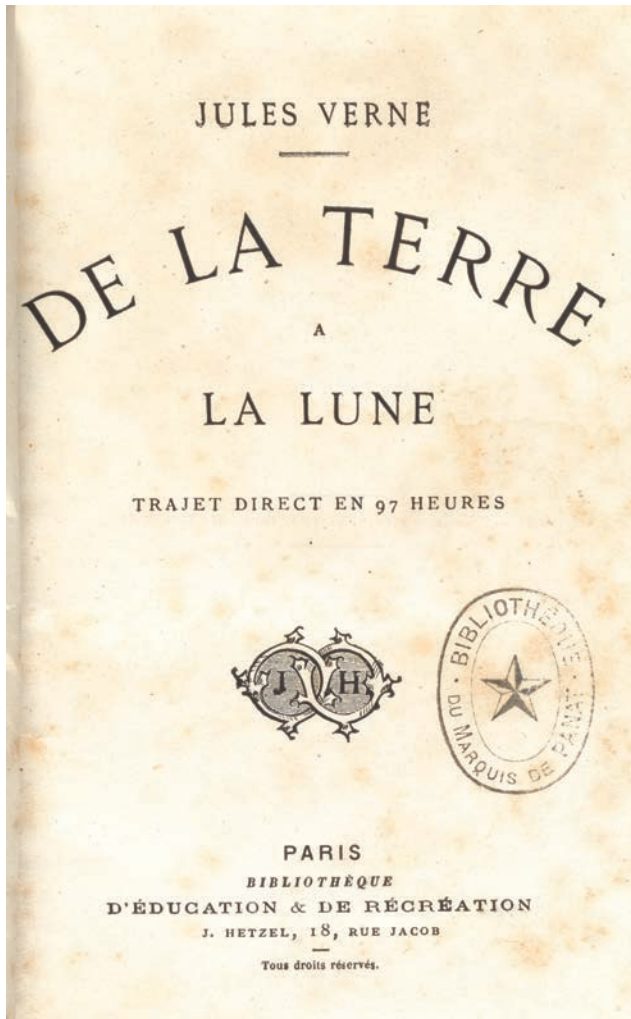
Poe's tale and the subsequent journalistic hoax, along with the host of lunar voyages mentioned above, helped to inspire another trip to the Moon in 1865, Jules Verne's (1828-1905) *De la terre à la lune* (*From the Earth to the Moon*, Item 17). The book is set just after the end of the American Civil War, and begins with a highly-anticipated meeting of "The Gun Club," at which a new project will be revealed. The club's members were passionate supporters of the arms race during the American Civil War and are despondent over the reduced demand for improvements in cannon technology and the loss of venue for testing their advances. At this meeting the club president, Impey Barbicane, announces his intention to travel to the Moon by means of a projectile shot from a giant cannon. The unrestrained enthusiasm shown by the club members is an overt satirization of America's dogged optimism. This is most keenly evident in the letter sent from Barbicane to the Cambridge Observatory, in which he enquires, *after* his bold declaration to travel to the Moon, whether such a voyage is possible.

In the story, much time is spent in discussion over the technical details for the method of constructing the cannon, the proper amount of gun powder needed to leave the Earth, and the ideal shape of the projectile craft. Verne, like Poe, prided himself on the plausibility and verisimilitude of his fictional publications, carefully researching each scientific fact referenced in his works. He ends the book in suspense with the successful launch of the vessel and resumes the adventure in the sequel, *Autour de la lune* (*Around the Moon*, 1870). In this slapstick space voyage the travelers never actually land on the Moon, but instead slingshot uncontrollably around it,

nearly killing themselves in a series of misadventures that finally result in their crash landing in the Pacific Ocean at the same perilous velocity with which they left. Miraculously, they manage to survive and are given a hero's welcome.

This comical but scientifically detailed diptych is remarkable, not so much in its literary innovation, but in its uncanny anticipation of future events: Americans would be the first to both orbit and visit the Moon, the space program would emerge from the backdrop of a nation at war along with advances in military technology, and the Moon voyagers would take off from Florida and land in the Pacific Ocean. Strangest of all, perhaps, was the Gun Club's enthusiasm for firing a weapon into the Moon, which was sadly echoed in the United States Air Force proposal to detonate a nuclear missile on the Moon during the Cold War, an effort (thankfully) never undertaken.

In the thirty-five years between Verne's publication and the next major fictional lunar voyage, *The First Men in the Moon* by H.G. Wells (1866-1946)—first published serially in *The Strand Magazine*, 1900-1901 (Item 18)—both scientific and public speculation had been curtailed by the growing realization that the Moon was, in fact, a dead world. "Is the Moon Dead?" an article by R.A. Proctor published by the popular *Cornhill Magazine* in 1877, first engages in a rigorous discussion as to why the Moon is currently unlikely to support any life, before considering whether it may have in the past. These lunar speculations, unlike their precursors, posit the Moon as an object of reflection about the possible future for life on Earth. Questions are raised as to whether the Moon is a possible site for colonization for our descendants (harkening back to Lucian and Verne), and if the Earth will share the fate of our nearest neighbor in eventually dying out. The article comes to the stark conclusion that "Every orb in space [...] is tending towards cosmical death." Proctor's article moves the debate forward from the early modern view of a multiplicity of worlds in one universe to speculation on a multiplicity of universes without limit: an infinity of infinities.

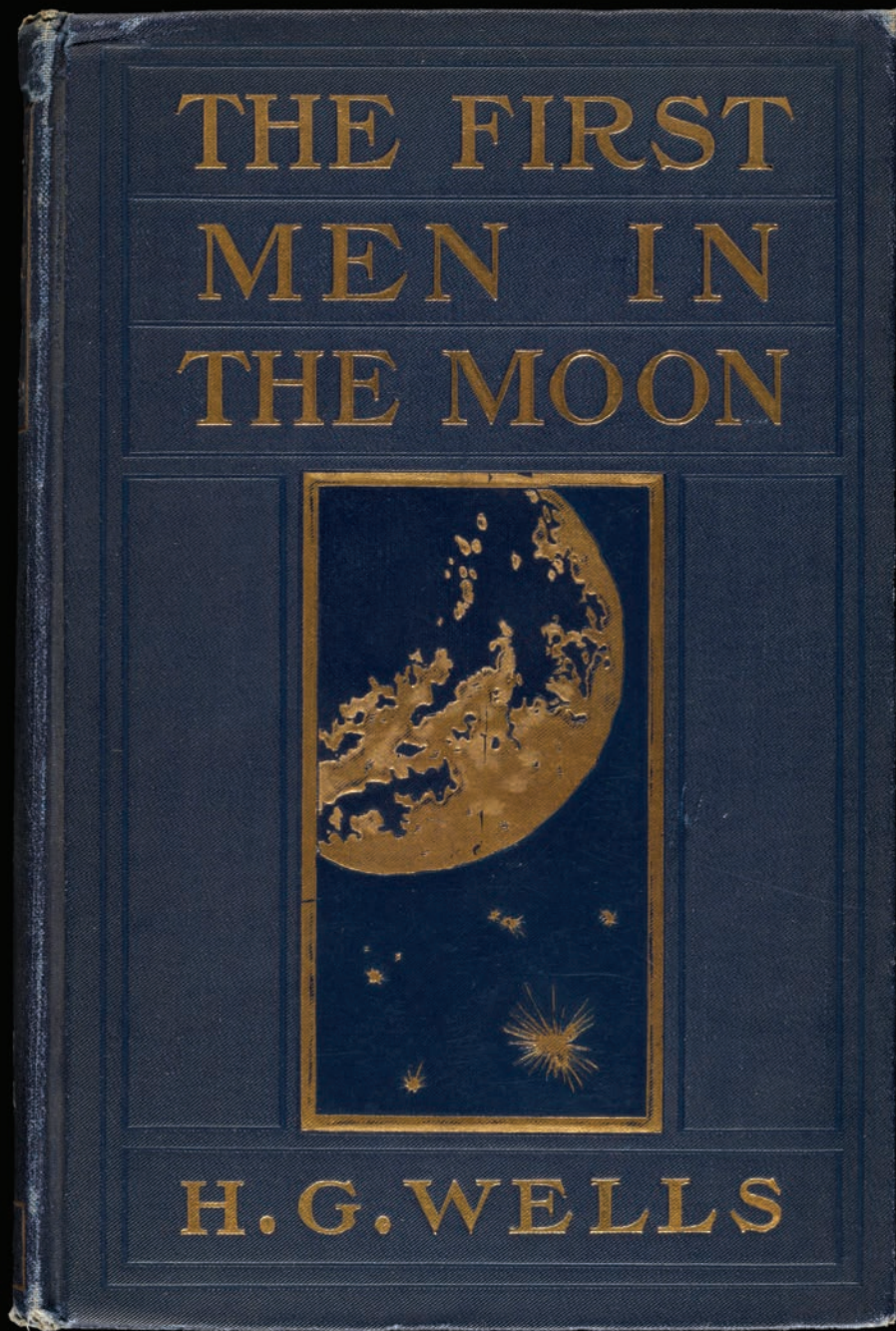


Jules Verne's *De la terre à la lune*. Title Page. (Item 17)

Unlike Verne and Poe, Wells paints a fuller and more nuanced picture of possible inhabitants of the Moon. In *The First Men in the Moon*, Wells depicts a sophisticated and intelligent civilization of insect-like creatures that live in a highly organized society, planned and overseen by the supremely intelligent Grand Lunar. The depiction of the Selenites (as Wells calls the Moon-dwellers) and the Earthlings allows for a great deal of ambivalence regarding the relative superiority of one life form over the other. His protagonists' method of lunar travel, however, harkens back to earlier Moon voyages with a grand and somewhat out-of-control launch propelling them away from Earth. His unlikely lunar voyagers, Mr. Bedford, an debt-ridden writer, and Mr. Cavor, an absent-minded scientist, travel to the Moon by means of a newly discovered gravity-repelling element they dub *cavorite*. They incorporate this substance into the design of their spherical space capsule. Wells pays

homage to his literary antecedents, echoing the mysterious chemistry used in Hans Pfaall's journey, and explicitly mentioning *De la terre à la lune* in a conversation between Bedford and Cavor.

The book contrasts a more anarchic Earth with a regimented Moon world, but leaves it to the reader to decide which might be better. Wells had assembled the most comprehensive Moon



The cover of the first American edition of *The First Men in the Moon*, by H.G. Wells. (Item 19)

voyage up to that time: a descriptive lunar voyage approaching verisimilitude, Moon creatures with bizarre and fascinating characteristics, and an alternative society that incorporates both utopian and dystopian themes. One other notable distinction between earlier literary lunar landings and *The First Men* is that Mr. Cavor is not a craftsman, as were the cannon-makers and huckster bellows-maker of our previous journeys, but rather a pure scientist. He is the prototype of the modern theoretical scientists that would dominate the twentieth century and radically alter our understanding of the universe. Despite his powerful mind, he must rely on Bedford, the writer, to bring to his attention the radical implications of his discovery. Here, *The First Men in the Moon* prefigures the role of what would become the genre of “science fiction” in speculating about the dangers as well as the utopian potentials of technology.

A new epoch in humanity’s relationship with the Moon was inaugurated on July 20, 1969, when Neil Armstrong and Buzz Aldrin landed their lunar module on the Sea of Tranquility. From that moment on, the Moon would no longer be beyond the reach of human exploration: we had made physical contact with the Moon and found it to be dead. Despite this discovery, the dream of extraterrestrial life still captivates our imagination, prompting us to probe the limits of what it means to be human. The question of life on the Moon may now be moot, but the history of that question deeply informs our understanding of the universe and our place within it. The texts discussed here disclose that history, illuminating the interplay of science and literature and, ultimately, reflecting our dreams and desires back to ourselves.

Item List

1. Lucian of Samosata. *Certaine Select Dialogues of Lucian: Together with his True Historie, Translated from the Greeke into English by Mr Francis Hicke*s. Oxford: William Turner, 1634. (881 L6.X.Eh)
2. Galileo Galilei. *Sidereus nuncius magna, longeque admirabilia spectacula pandens*. London: Jacob Flesher, 1653. (523 G13s)
3. Johannes Hevelius. *Selenographia, sive lunae descriptio*. Danzig: Hünefeld, 1647. (Q. 520 H48s)
4. Johannes Kepler. *Somnium, seu opus posthumum de astronomia lunari*. Sagan and Frankfurt: [Herzogliche Druckerei], 1634. (520 K44s)
5. John Donne. *Ignatius His Conclave*. London: John Marriot, 1634. (MINI00517)
6. Ben Jonson. *Newes from the New World Discover'd in the Moone*. London: Richard Meighen, 1640. (IUQ01395)
7. John Wilkins. *The Discovery of a World in the Moone*. London: Michael Sparke and Edward Forrest, 1638. (523.3 W65d)
8. Pierre Borel. *A New Treatise, Proving a Multiplicity of Worlds*. London: John Streater, 1658. (MINI00241)
9. Christiaan Huygens. *The Celestial Worlds Discover'd*. London: Timothy Childe, 1698. (IUA07053)
10. Bernard Le Bovier Fontenelle. *A Discovery of New Worlds. From the French. Made English by Mrs. A. Behn*. London: William Canning, 1688. (844 F73OeEb)
11. Aphra Behn. *The Emperor of the Moon*. London: Joseph Knight and Francis Saunders, 1687. (IUA01062)
12. Margaret Cavendish. *The Description of a New World, called the Blazing-World*. London: A. Maxwell, 1668. (IUQ01742)
13. Cyrano de Bergerac. *The Comical History of the States and Empires of the Worlds of the Moon And Sun*. London: Harry Rhodes, 1687. (IUA03608)
14. Daniel Defoe. *A Journey to the World in the Moon*. [Edinburgh]: James Watson, 1705. (Nickell 827 D362j 1705a)
15. Daniel Defoe. *The Consolidator*. London: Benjamin Bragg, 1705. (827 D362c)
16. *Southern Literary Messenger*. Richmond: T.W. White, June 1835. (051 SOL v.1)
17. Jules Verne. *De la terre à la lune*. Paris: J. Hetzel, [1865]. (845 V59od 1865)
18. *The Strand Magazine*. London: G. Newnes, 1900-1901. (Wells FM-001: The First Men in the Moon)
19. H.G. Wells. *The First Men in the Moon*. Indianapolis: Bowen-Merrill, 1901. (Wells 823 W46f 1901a)

