LUCIAN AND THE GREAT MOON HOAX OF 1835¹

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The science of astronomy has had a long and distinguished history at the Cape of Good Hope (hereafter referred to as "the Cape"). This is no accident, since Cape Town was for many years (since 1652, in fact) the only fortified and inhabited European settlement in the southern hemisphere. Thus when astronomers in The Netherlands, France, and England turned their attention to mapping the southern skies it was to the Cape that they brought their instruments. In addition, the mother city of South Africa is only about eighteen degrees east of the Greenwich meridian in London, so that observations of the skies in London and Cape Town could be made from approximately the same longitude. In the eighteenth and nineteenth centuries, star-gazing was not merely a matter of academic interest; on it depended the accuracy of navigational aids used by the merchant and naval shipping of these and other nations. The interest shown in Cape Town by the British astronomical community is also evident from the construction of the Royal Observatory at the Cape in 1820 by the Admiralty. This observatory was intended to be the counterpart of the Greenwich Observatory in London (Evans 1981a:196; Warner 1995). In addition to this interest in navigational accuracy, the invention of the refracting telescope at the beginning of the seventeenth century provided the means for scientists to make star-maps of the southern skies more accurate and complete. The Dutch astronomer, Peter Kolbe, was sent to the Cape in 1705, and in 1751 a Frenchman, the Abbé De La Caille, also arrived there for this purpose (McIntyre 1951:3-5; De La Caille 1763b). The latter was considerably more successful than the former; he added 9766 stars and 42 nebulae to the celestial catalogue (De La Caille 1763a). Among other things he determined the distance between his Cape observatory in Strand Street and the moon (De La Caille 1751).

These preliminary astronomical studies were followed by Sir John Herschel's transportation of a large reflecting telescope from London to Cape Town in the South African summer of 1833/1834 and his subsequent observations of the southern sky between the years 1834 and 1838 (Herschel 1847:vf.). Sir John, who improved the telescope built by his father, was the son of the famous English astronomer, Sir William Herschel. His project, which aimed to be a "complete telescopic survey of the whole surface of the visible heavens" (as indicated in the title to Herschel's book), had already begun in 1825 and attracted considerable interest. The new telescope was erected at Feldhausen in Wynberg, where it was thought at the time that conditions would be best for astronomical observation. Herschel (1847:452) notes that "every member of my family had become, and will remain, attached [to the locality and the colony] by a thousand pleasing and grateful recollections of years spent in agreeable society, cheerful occupation, and unalloyed happiness".²

On 25 August in the year following Herschel's arrival at the Cape, an article appeared in the New York *Sun* purporting to be an extract from *The Edinburgh Journal of Science*. The piece claimed that:

"... by means of a telescope of vast dimensions and an entirely new principle, the younger Herschel, at his observatory in the Southern Hemisphere, has already made the

¹ I am indebted to the anonymous readers of *Akroterion* for their useful suggestions for the improvement of this article, and to the *National Research Foundation* of South Africa, whose financial assistance made it possible for me to find relevant books and articles in the Institute of Classical Studies and the British Library in London. However, I first encountered the literature on the Moon Hoax serendipitously in Cape Town at the National Library—founded on the bequest of another English educator and philanthropist, Sir George Grey.

² On Herschel's visit to the Cape, see Fernie (1976:57-105); Barnard (1954).

most extraordinary discoveries in every planet of our solar system; has discovered planets in other solar systems; has obtained a distinct view of objects in the moon, fully equal to that which the naked eye commands of terrestrial objects at the distance of a hundred yards; has affirmatively settled the question whether this satellite be inhabited, and by what order of things; has firmly established a new theory of cometary phenomena; and has solved or corrected nearly every leading problem of mathematical astronomy."³

The newspaper ran the story for six days during which details of the alleged discoveries were progressively revealed. On the second day, 26 August 1835, the report stated that the British Board of Longitude required observations to be made at the Cape of Good Hope of the rare "transits of Mercury and of Venus", which were only observable in the southern hemisphere and which would occur on 7 November 1835. According to the report, Sir John Herschel undertook to carry out this request and set out on 4 September 1834 to prepare his telescope for the task. On his arrival at Cape Town, the Sun continued, a telescope with an aperture of twenty-four feet⁴ was transported to its final destination, the very spot where De La Caille had made his sightings.⁵ This was done by means of "two teams of oxen, of eighteen each, in about four days, and aided by several companies of Dutch boors".⁶ Once the telescope had been set up, the lunar findings followed almost immediately. At half-past nine on the evening of 10 January 1835, according to his fictional assistant, Dr Andrew Grant, Herschel saw columns of "greenish-brown basaltic rock" on a shelf "covered with a dark red flower". This was held to prove that the moon had an atmosphere capable of sustaining life. The British astronomer was also said to have seen a wide variety of geological phenomena that showed signs of tidal levels⁷ and volcanic activity. Moving on, he noted crystal structures in the shape of obelisks and pyramids, huge amethysts, and a valley containing "brown quadrupeds" with "a fleshy appendage over the eyes" that he guessed to be an evolutionary feature shared by all lunar animals to protect their sight from the "extremes of light and darkness to which all the inhabitants of our side of the moon are periodically subjected".⁸

The third day, 27 August, produced new wonders. In a mountainous region a volcano was seen in a state of eruption that appeared to have been going on for millions of years. Surrounding this area was a field of forests containing a wide diversity of trees, and plains grazed by quadrupeds. Other animals included small zebras and a type of biped beaver without a tail and carrying its young "in its arms like a human-being" and possessing the secret of fire (fig. 1). This region of the moon also contained huge lakes and inland seas. Vegetation included a palm-like tree and another plant resembling an arboreal melon.

³ There is a considerable literature on the Great Moon Hoax from entire books (Griggs 1852; Seavey 1975, which I have not seen), to chapters in books (Proctor 1878, O'Brien 1928, Ley 1963), articles (Evans 1981a, 1981b, Crowe 1981, Reaves 1954, Barton 1937), and websites (<u>http://www.museumofhoaxes.com/moonhoax.html</u>). The quotation above is taken from the website version of the original newspaper article. It is also quoted by Evans (1981a:197).

⁴ A misunderstanding of the actual size of the telescope, to which Herschel referred by its focal length of twenty feet (Evans 1981a:196).

⁵ There is some truth in this, but De La Caille and Herschel did not locate their observatories at the same site.

⁶ In fact, the telescope was erected by Sir John Herschel, his assistant John Stone, and four unskilled locals (Evans 1981a:198).

⁷ Measuring tides was another task that Herschel set himself while he was at the Cape.

⁸ Ideas about evolution were much discussed at this time. Charles Darwin came to Cape Town on the *HMS Beagle* and visited Herschel, who was one of the leading scientists of his day, on 3 June 1836.



Day 4 brought into the record giraffe-like animals, large sheep, and "flocks of large winged creatures". These latter, whom the scientists at the Cape labelled *Vespertilio-homo* or manbats⁹ were capable of walking on foot and conversing in their own language. Their likeness was supposedly to have been engraved by Herbert Home so that illustrations of their appearance could be made.

On the following day, the report described oceans, islands, mountains, and ridges of solid crystal. More spectacular still was the discovery of an "equitriangular temple, built of polished saphire", and supported by six plain columns on each side, with a scroll-like structure and a globe surrounded by flames on its roof (fig. 2).

⁹ Could this be the origin of the Batman legend? An issue of the batman comics talks of the 'man-bat', see O'Neill (1989). I have not been able to consult Heggs (2001). Robert Paltock's *Life and Adventures of Peter Wilkins* (London 1750), a *robinsonade* now reissued by Bentley (1990), featured flying humans. It was performed as an operetta in Locke's day (Nicolson 1948:241). The flying humans illustrated in *Peter Wilkins* resemble the man-bats in the illustration above.



Fig. 2: Illustration copyrighted by B. H. Day, owner of The Sun, New York 1835.

The final article informed readers of *The Sun* about the diet of the lunar inhabitants (a kind of fruit) and their habit of grouping themselves together in triangular shapes. Politically, the man-bats followed orders obediently and lived in harmony with the other creatures on the planet (see fig. 3). The next morning the astronomers were said to have been awakened by "loud shouts of some Dutch farmers and domesticated Hottentots" indicating that the house containing the telescope was on fire (a plausible detail as fires were common in the Cape and one did occur on Table Mountain at this time). This required the instrument to be repaired by artisans from Cape Town. When the repairs were completed, according to the report, Herschel turned his attention to Saturn and its rings. He discovered that the rings were composed of "the fragments of destroyed worlds" attracted to the gravitational field of the planet. Diverting his telescope to the moon again, the observers saw a more beautiful variety of man-bats, abandoned temples, and additional species of horned quadrupeds.



Fig. 3: Moon landscape from a lithograph copyrighted by B H Day, 1835.

As a result of these sensational reports, circulation figures for *The Sun* set new records, reaching 19500 on the final day of the series with a further 10000 copies distributed at no cost to the public (Evans 1981a:196).¹⁰ Very few readers noticed that the "discoveries" were entirely fictional. Even *The New York Times* and *The New Yorker* were taken in and missionaries solicited funds from the public for Bibles for the enlightenment of these extraterrestrial beings (Crowe 1986:212f.).¹¹ The reading public had been taken in by the authority of Sir John Herschel, by the many discoveries that his telescopes had already made, by the current interest in evolutionary biology and aviation, by the possibilities of colonization, and by profound philosophical and religious implications of life on the moon.¹² Moreover, the ground had already been prepared by earlier speculation on the existence of life on the moon (Gruithuisen 1824; Wilkins 1640). The author of the articles, which later became known collectively as the "Great Moon Hoax", was Richard Locke, who subsequently became the editor of *The Sun*—a newspaper that was aimed at a popular readership (like its present-day British successor).¹³ The success of the hoax can be attributed to the elaborate scientific framework Locke employed. His first report went into considerable detail about the

 $^{^{10}}$ The hoax was later published as a pamphlet, Locke (1859).

¹¹ Virtually every newspaper in the United States heralded these sightings with acclaim. The success of these hoaxes seems to depend on the novelty of the media employed in them. A radio hoax by Orson Welles concerning the invasion of aliens from Mars was broadcast on October 31, 1938 and caused widespread panic (Nicolson 1948:1-2). See now the film *Shattered Glass* in which a writer for *The New Republican* falsifies numerous reports which are purported to be factually correct.

¹² It should be remembered that for many religious leaders, such as Calvin, aviation was a heresy (Nicolson 1948:35-37).

¹³ Locke later attempted to duplicate his success with a false manuscript by the African explorer Mungo Park, and to try further hoaxes involving Herschel and his telescope (Crowe 1986:215).

precise workings of the new telescope, focusing particularly on a revolutionary method of improving the power of the instrument by means of a "transfusion of artificial light through the focal object of vision".¹⁴ Mention of Halley's comet, which was due to appear in 1835, added plausibility to the narrative (Evans 1981b:308). Credence was further enhanced by quoting authoritative figures (such as Dr Andrew Grant) as sources of information and citing the names of astronomers such as Aristarchus, Cleomedes, Riccoli, Langrenus, Petavius, and Tycho, the lunar map of "Blunt", and places on the moon such as the Mare Tranquillitatis. Locke was also careful to introduce his readers gradually into the more sensational discoveries and closely imitated Herschel's scientific style of writing.¹⁵ Besides this, many people in the early nineteenth century, such as the Rev. Thomas Dick, were fervent believers in extraterrestrial life and obdurately rejected all suggestions that Locke's articles were a hoax (Crowe 1981:428).¹⁶ Contemporary accounts of the alleged inhabitants of the moon, such as Gruithuisen's 1824 article, also presented evidence for geometrically shaped structures on the moon, including a "star-shaped structure that he labels a temple" (Crowe 1986:203). In 1826 an anonymous article in The Edinburgh New Philosophical Journal reported on these speculative accounts of extraterrestrial life (Crowe 1986:206).

De Morgan (in Proctor 1878:242) suggested that the hoax may have been perpetrated by a French astronomer, Nicollet, in a bid to embarrass his colleague, the Director of the Paris Observatory, Dominique Arago. However, the 1835 French edition is prefaced by a dialogue in which it is clear that Arago exposed the hoax at a meeting of the Institut de France.¹⁷ Colonial rivalries between the French and the British, exacerbated by the British takeover of the Cape from the French at the end of the eighteenth century, could explain the rapid exploitation of the spoof in Paris. Moreover, six months before the publication of the "Great Moon Hoax" another American writer had composed a similar confidence trick inspired by Herschel's telescope. This was Edgar Allan Poe, whose short story "Hans Pfaall"¹⁸ was originally published three weeks prior to Locke's piece in *The Southern Literary Messenger*, of which Poe was the editor (Poe 1846 in Thompson 1984:1216). The tale concerns the voyage to the moon of a desperate and suicidal artisan from the city of Rotterdam. Hoping to escape his debts and inspired by a book on "speculative astronomy" by a Professor Encke of Berlin, Pfaall constructed a very large balloon, inflated it with a gas that he produced by a secret process, suspended a wicker basket below it, and on the first day of April ascended into the sky with the assistance of three of his creditors. (These men hoped to recover the money they were owed by Pfaall in this venture, but were killed in the explosion that lifted the balloon into the air.) After a number of near-fatal crises and stupendous discoveries of the secrets of nature, such as the properties of the earth's atmosphere, related in the manner of a ship's log or diary, the balloon finally reached the moon after nineteen days. There Pfaall stayed for five years, during which he learned much about the moon and its inhabitants. Eventually he sent one of the short, round, earless "moon-men" back to earth offering to exchange the information he had discovered for a pardon from the burghers of Rotterdam for the deaths of the three creditors. The story concluded with a short discussion of whether the narrative was a hoax or not.

¹⁴ The construction and method of magnification of the telescope is discussed critically by Evans (1981a:196-98, esp. 198) and Proctor (1878:241-266). Elsewhere Locke avoids full explication of the mathematics involved in telescopy.

¹⁵ Proctor (1878:251-259) notes the progressive climax of disclosures in the reports.

¹⁶ Crowe's attempt (1981:429) to classify Locke's spoof as satire rather than hoax seems unnecessarily restrictive, however. There may have been satirical elements in the series, but the intention was surely to hoodwink the readers of *The Sun* in order to boost circulation.

Arago was in contact with Herschel at the Cape (Evans *et al.* 1969:57 n. 69).

¹⁸ "The Unparalleled Adventure of One Hans Pfaall", to give the tale its proper title (Quinn 1984:949).

Despite Locke's denial, Poe was convinced that the "Moon Hoax" had been inspired by his own story ("not for a moment could I doubt [it] had been suggested by my own jeu d'esprit", Poe 1846 in Thompson 1984:1216).¹⁹ He observed that both were hoaxes involving astronomical discoveries, both adopted a similar approach of "attempting to give plausibility by minuteness of scientific detail" (Poe 1846 in Thompson 1984:1216),²⁰ and both concerned the moon and its imaginary inhabitants. Many literary journals of the day in fact believed that the two pieces were written by the same author and printed the pieces together for comparison. The association of Poe and Locke continued: Poe wrote a short sketch of Locke in his collection of essays The Literati of New York City (Thompson 1984:1214-1222), while Locke published Poe's "Balloon Hoax", an account of the supposed first aerial crossing of the Atlantic, as a supplement of The Sun on 13 April 1844-an event that, according to the author, created considerable excitement among the readers of the paper (Poe 1844 in Walker 1986:138).²¹ Clearly, however, "Hans Pfaall" and the "Moon Hoax" cannot be compared directly, since Locke would have given his hoax away immediately if his narrative had adhered too closely to Poe's storyline. Nevertheless, Pfaall's reticent description of the moon and its inhabitants provided an opening for Locke to pursue. The indebted artisan needed to show the "burgomaster" of Rotterdam that he had interesting information to divulge in exchange for a pardon, without revealing all he knew before the deal was concluded. Pfaall stated his case as follows:

"I have much to say of the climate of the planet; of its wonderful alternations of heat and cold, of unmitigated and burning sunshine for one fortnight, and more than polar frigidity for the next; of a constant transfer of moisture, by distillation like that *in vacuo*, from the point beneath the sun to the point the farthest from it; of a variable zone of running water, of the people themselves; of their manners, customs, and political institutions; of their peculiar physical construction; of their ugliness; of their want of ears, those useless appendages in an atmosphere so peculiarly modified;²² of their consequent ignorance of the use and properties of speech; of their substitute for speech in a singular method of inter-communication; of the incomprehensible connection between each particular individual in the moon with some particular individual on the earth—a connection analogous with, and depending upon, that of the orbs of the planet and the satellites, and by means of which the lives and destinies of the inhabitants of the one are interwoven with the lives and destinies of the inhabitants of the other; and above all, if it so please your Excellencies—above all, of those dark and hideous mysteries which lie in the outer regions of the moon-regions which, owing to the almost miraculous accordance of the satellite's rotation on its own axis with its sidereal revolution about the earth, have never yet been turned, and, by God's mercy, never shall be turned, to the scrutiny of the telescopes of man."

¹⁹ The appendix to Locke (1859) refers explicitly to Poe's *Hans Pfaahl* (p. 57). Throughout his life Poe was fond of hoaxes: see Bittner 1962:73-74, 195; Symons 1978:88-89, 107. Poe's tale "Von Kempelen and his Discovery", for example, described a process of turning lead into gold at a time when the Californian gold rush was at its height.

²⁰ Pfaall/Poe, like Locke, is not averse to using classical erudition for this purpose. In discussing the "zodiacal light" he quotes Pliny (*HN* 2.96.8) on meteors: *emicant et trabes simili modo, quas* dokoÝj *vocant, qualis cum Lacedaemonii classe victi imperium Graeciae amisere* "meteors, which they call *dokoi*, shine out in a similar way, such as when the Spartans were conquered by a fleet and lost their power over Greece".

²¹ A good idea of the relationship between Locke and Poe, and the intensity of the literary squabbles of the day, can be gleaned from Moss (1970:113-114).

²² Note again the application of Darwin's theory that animals adapt to their environment to survive—a common feature of both narratives.

Moreover, the diary format employed by Poe suggests the possibility of serialisation, and this technique of progressive disclosure of information is what Locke employed in his series

Poe's story "Hans Pfaall" was in turn influenced by an earlier story by George Tucker, Professor of Ethics at Jefferson University in Virginia (Bittner 1962:45). This tale, first published in 1827,²³ belongs to the satirical tradition of Cyrano de Bergerac's Voyage dans la Lune (1657), Jonathan Swift's Gulliver's Travels (1726), and the tall tales of Baron von Münchausen (18th century), as well as to the genre of speculative scientific accounts of the moon, such as Kepler's Somnium (1615-1629),²⁴ Godwin's The Man in the Moon (1638)²⁵ and Wilkins' The Discovery of a World in the Moone (1640), and proto-science-fiction such as Ludwig Holberg's *Nikolai Klimii iter subterraneum* (1741).²⁶ It describes how on a voyage to China, an American, Joseph Atterley, is shipwrecked at "Mergui, on the Martaban coast of the Burman empire", where he is taken hostage by the Burmese resistance against the East Indian Company. He is taken to the remote town of Mozaun where he meets a Brahman, Gurameer, who has been banished there from his home town of Benares after he had killed a man during an attempt to save his lover from death by *suttee*. Gurameer discovers a stone that is attracted to the moon and he uses this to propel himself and Atterley there in a copper capsule. After landing on the satellite, Atterley and Gurameer encounter lunarians and discover that they are intensely stupid, except for those who are given intelligence by means of a ray of energy from the earth in the same way that lunatics were thought to be affected by moonshine on earth.²⁷ In his description of the customs of the inhabitants of the moon, including those who live in Morosofia ("Foolwisdom"), Tucker satirises the violent and partisan character of American electioneering, the excessive ambitions of Napoleon (Polenap), and the absurd craniological theories of Lavater, as well as contemporary medical quarrels and hypotheses, definitions of aesthetics, and educational ideas. Gurameer and Atterley eventually return to earth, where the former renews his travels and the latter rejoins his family and friends. Tucker makes much of the appearance of the earth and the moon during the voyage (provoking speculation about the reasons for the backwardness of Africa, among other things), and this is a feature of Poe's narrative too. Both accounts dwell extensively on telescopic observations of these planets. However, Poe's story is more obviously a hoax rather than a satire; the characteristics of the lunarians and their planet are only hinted at, rather than made examples of what to imitate and what to avoid in life, as is the case with Tucker.

These nineteenth-century scientific hoaxes and satires make sense as fictional narratives written in response to the concerns of the day, such as evolution, the invention of large telescopes, advances in navigational science (and science generally), and the development of a cheap and popular medium of communication, exemplified by a newspaper such as the New York *Sun*. At the same time they draw their inspiration more or less directly from the tradition

of articles too.

²³ Reprinted in 1975 with an introduction by David Hartwell.

²⁴ On Lucian and Kepler's *Somnium*, see Romm (1989).

²⁵ On Godwin, see Jannsen (1981).

²⁶ On Holberg and ancient literature, see Peters (1986). This genre led to the later work of Jules Verne (*De la Terre a la Lune* 1865), H G Wells, (*First Men in the Moon* 1901), and E R Burroughs (*The Moon Men* 1975). A full discussion of voyages to the moon can be found in Nicolson (1936; 1940; 1948), who discusses Lucian (1948:14-17) and the Moon Hoax (1948:241-242; see also Green (1975). For imaginary voyages in general see Gove (1961), who discusses ancient narratives on pp. 17-19.

²⁷ A direct connection between Poe and Tucker can be observed here, since the former had spoken of "the incomprehensible connection between each particular individual in the moon with some particular individual on the earth".

of Lucian's *Icaromenippus* and *True Histories*,²⁸ and ancient views on extraterrestrial life, such as are preserved in Plutarch's essay *On the Face of the Moon*. Tucker, Poe, and Locke were well educated in the Classics: Tucker was a professional academic, Locke was related to the philosopher John Locke and had been to Cambridge, and Poe had been placed in Manor House School in Stoke Newington in England and later attended the Jefferson University in Virginia where he was registered as a student in the school of ancient and modern languages. His Classics professor was Professor Long from Trinity College, Cambridge (Bittner 1962:25, 39).²⁹ Educated men of the day habitually thought in terms of Classical learning; the appendix to Locke (1859:51-60) quotes passages from Virgil and Homer in discussing the hoax.

The ancient Greeks first thought of the moon in terms of mythology.³⁰ Herodorus of Heracleia, for example, taught that, although moon-women (*selenitides gynaikes*) produce eggs, their offspring are fifteen size larger than us.³¹ Therefore Helen of Troy could not have been born from an egg that fell from the moon, as Neocles of Croton believed (*FGrHist* 31F21 = Athen. *Deip.* 2.57f.). A similar story was told of the Nemean lion.³² Later, Plato set alight the imagination of later writers concerning the moon with his myths of *daimones* who mediated between the gods and men (cf. *Phaedrus* 247a, *Republic* 392a, *Laws* 713d, 848d, *Statesman* 271d). Plato describes these as desirous beings—one of the most powerful being Eros (*Symp.* 202e-203a). One of Plato's later successors, Xenocrates, associated the *daimones* specifically with the moon (cf. Plutarch *On the Failure of Oracles* 416d, probably reporting the thoughts of Xenocrates: "there is a body of mixed nature which actually parallels the daemons, namely the Moon"). Another writer, Aëtius (fr. 15 Heinze), talks of 'sublunary demons' (*hyposelenoi daimones*) and Philip of Opus mentions beings that inhabit the air (*Epinomis* 984e).³³ However, it was probably the Pythagoreans, possibly Philolaos, who were the first to actually suggest that the moon was inhabited by animals:³⁴

"Some Pythagoreans, of whom Philolaos is one, say that the earth-like appearance of the moon is a result of the fact that the moon is inhabited with animals and plants like

²⁸ Robinson's comment (1979:237) that Lucian "ceased to provide an important general creative stimulus" in the nineteenth century, is exaggerated. For the reception of Lucian in German literature into the 20th century, see Baumbach (2002); see also the references to Lucian's influence on nineteenth- and twentieth-century travel literature (above, note 26). On the Renaissance reception of 'The Fantastic Voyage', especially in relation to the voyages of discovery, More's *Utopia* and the Gargantua and Pantagruel of Rabelais, see Marsh (1998:181-210); for Lucian during the Renaissance, see Mattioli (1980); Mayer (1984); Graap (2001).

²⁹ One of Poe's most famous poems "To Helen" contains the phrases "the glory that was Greece" and "the grandeur that was Rome" used by Stobart as the titles of his well-known books.

³⁰ Préaux (1973:1-393) gives a comprehensive account of ancient ideas about the moon. See also Gundel (1933:75-105); Georgiadou and Larmour (1998a:81-86).

³¹ Presumably because on the moon there are approximately fifteen more 'days' than on the earth (actually one moon day, i.e. there are no nights). Alternatively, their size may be related to the fact that they had no need to excrete.

³² Herodorus *FGrHist* 31F4 = Tatian 27; Epimenides DK 3B2—the idea of travelling to the stars (or moon) is shamanistic detail according to Burkert (1972:347).

³³ See Dillon (2004:123-141, esp. 130). According to Dillon, Philip of Opus was elaborating on the passage in Plato's *Timaeus* (39e-40a), which mentions three mortal beings that inhabit air, water, and earth. I am grateful to Professor Dillon for sending me the English original of this chapter. On sublunary bodies that influence the lunar eclipses, see Bicknell (1967a:16-21).

 ³⁴ According to Diogenes Laertius, Anaxagoras was the first person to state that the moon was inhabited (DL 2.8). Anaxagoras believed there were dwellings (*oikeseis*) on the moon, and hills and ravines. Cicero *Luc*. 123 [= *Acad. Prior.* 2.39.123] attributes the idea to Xenophanes: cf. Lactantius *Div. Inst.* 3.23.12. On Xenophanes' ideas about the moon, see Runia (1989:245-269); Bicknell (1967b:135-136; 1969:53-85).

our earth but bigger and more beautiful. The animals on the moon are fifteen times more powerful, and do not have bodily excretions.³⁵ The day is equally as long.³⁶." Tŵr Πυθαγορείων τινὲς μέν, ŵr ἐστι Φιλόλαος, τὸ γεωφανὲς αὐτῆς εἶναι διὰ τὸ περιοικεῖσθαι τὴν σελήνην, καθάπερ τὴν παρ³ ἡμῖν γῆν, ζώοις καὶ φυτοῖς μείζοσι καὶ καλλίοσιν. Εἶναι γὰρ πεντεκαιδεκαπλάσια τὰ ἐπ³ αὐτῆς ζῷα τῆ δυνάμει, μηδὲν περιττωματικὸν ἀποκρίνοντα, καὶ τ ὴν ἡμέραν τοσαύτην τῷ μήκει. (Stobaeus = Aëtius 2.30 [Diels])

In Plutarch's dialogue *On the Face of the Moon* objections had been raised concerning how these beings do not fall off the surface and how they manage to endure 'twelve summers every year' with the sun directly above them at full moon, especially as the atmosphere does not appear have clouds (Mor. 937-938af).³⁷ After all, sceptics pointed out, the Ethiopians are burnt by the sun and by the dry atmosphere of their country on earth.

Such speculations later turned into deeper philosophical contemplation; the belief that life exists elsewhere in the universe was a notion proposed by Epicurus (*Ep. Hdt.* 45) and others of his school. Lucretius held that the logical corollary of this premise is that there is no personal deity who directly controls the destiny of humankind (*DRN* 2.1090-1093). Such ideas aroused the opposition of the Stoics who regarded them as fictions (*res commenticiae*, Cic. *Acad.* 2.126f.). Instead, the Stoics believed that on death the soul, which is hot and fiery, ascends to heaven and inhabits a region beneath the moon, where it is fed by exhalations from the earth and continues to exist in the form of *daimones* (Sext. Emp. 9.71, cf. Cic. *Tusc.* 1.18.42f. [Panaetius]).³⁸

The idea that the souls of the dead inhabit the moon is an almost universal human belief that may be connected to the moon's monthly 'death' and 'rebirth'.³⁹ Some philosophers in ancient Greece, such as some of the participants in Plutarch's dialogue, thought that the moon contains hollows where those who commit evil acts on earth are punished (*Mor.* 944c); that *daimones* descend to earth from the moon to take charge of oracles, to participate in religious rituals, to punish evildoers, and to save those in danger in war and on the sea (*Mor.* 944d). There was also a Pythagorean *acusma* that the sun and moon are the 'Isles of the Blessed' and that information about them can only be obtained by travelling there.⁴⁰ A fictitious account of a journey to the moon—considered by some to be a parody of Pythagorean ideas about it⁴¹—can be found in Antonius Diogenes' *Wonders beyond Thule*,⁴² which is preserved in a summary by the Byzantine scholar Photius. The narrative recounts the adventures of a certain Dinias on his travels to the remotest ends of the earth. Here Photius proves to be more critical than the twentieth-century readers of the *Sun*; he is not taken in by the exaggerated claim that Dinias saw men and other imaginary things on the moon:

"And he reports that he saw other similar things (sc. nights that last six months and so on) and he tells fantastic tales of seeing men and other things that no one else has seen or heard and that no one has ever imagined in their dreams. And the most unbelievable

³⁵ Burkert (1972:346). Burkert suggests that the fact that these creatures had no need to excrete is shamanistic. According to Lucian, they had no need of solid food and are nourished by odours (*VH* 1.23), cf. Arist. *Sens.* 445a16; Plin. *HN* 7.25; Plut. *De fac.* 938.

³⁶ That is, fifteen times as long as one twenty-four hour day on earth.

³⁷ On Plutarch's dialogue *On the Face of the Moon*, see Donini (1990:126-144).

³⁸ For Stoic accounts of the souls of the dead and the moon, see Préaux (1973:139-144).

³⁹ For the supposed eastern origin of the Greek belief, see Préaux (1973:135f.).

 ⁴⁰ Burkert (1972:346, n. 49), cf. Diog. Laert. *Pyth.* 8.32; Iamblichos VP 18.82. On the various journeys in the VH, see Georgiadou and Larmour (1998a:13-22).

⁴¹ Georgiadou and Larmour (1998a:40 and n. 113), quoting the work of earlier scholars; Fauth (1978).

⁴² On the influence of this narrative on later travel literature, see Romm (1994). On the relationship between Antonius and Lucian, see Di Gregorio (1968); Reyhl (1969); Morgan (1985); Swain (1992).

thing of all was that as they journeyed to the North they came close to the moon—as to a very clear and open land. When they came there they saw what a person who makes up such extremely unlikely fictions probably would see."

Καὶ ἕτερα δὲ ἀπαγγέλλει ἰδεῖν ὅμοια, καὶ ἀνθρώπους δὲ ἰδεῖν καὶ ἕτερα τινὰ τερατεύεται, ὰ μηδεἰς μήτε ἰδεῖν ἔφη μήτε ἀκοῦσαι, ἀλλὰ μηδὲ φαντασίαις ἀνετυπώσατο. Καὶ τὸ πάντων ἀπιστότατον, ὅτι πορευόμενοι πρὸς Βορρῶν ἐπὶ σελήνην, ὡς ἐπί τινα γῆν καθαρωτάτην, πλησίον ἐγένοντο, ἐκεῖ τε γενόμενοι ἰδοιεν ὰ εἰκὸς ἦν ἰδεῖν τὸν τοιαύτην ὑπερβολὴν πλασμάτων προαναπλάσαντα. (Photius Bibliotheca 166 [111a Bekker])

The most significant influence on later narratives of voyages to the moon, however, was Lucian, whose works, including the True Histories and Icaromenippus, had been translated into Latin in 1543. Francis Hicks produced an English translation in 1634, F. Spence in 1684, and Thomas Francklin in 1781.⁴³ In the *Icaromenippus*,⁴⁴ the Cynic philosopher Menippus describes how he flew to the moon using the right wing of an eagle and the left wing of a vulture in order to verify the contradictory teachings of philosophers of the day concerning that satellite.⁴⁵ From this point he was able to see the entire known world: Greece, Persia, and India (observation of the various continents of the earth is a detail also used by Tucker). After being shown by Empedocles how to enhance his vision he witnessed the crimes, moral failings and political disharmony of the various nations of the earth and was filled with a sense of the vanity of human desires. The moon then requested him to ask Zeus to destroy the philosophers who put about false information about her. Menippus then flew to heaven and obtained an interview with the father of the gods, who was engaged in answering the contradictory and sometimes depraved prayers of humans. Zeus criticised the failings of humanity and the gods voted for the destruction of philosophers. Menippus was carried back to earth by Hermes.

The *True Histories* is a more elaborate narrative.⁴⁶ The preface stresses the importance of relaxation in intellectual life and satirises the distortions of poets, historians, and ethnographers such as Homer, Ctesias, and Herodotus. In contrast with them Lucian states his intention of deliberately writing a fictional account of a voyage. In the first book of this work Lucian describes how he and fifty others had set out into the Atlantic to discover what lands and peoples lay beyond it. His ship is caught up in a prolonged storm that blows the vessel and its crew to a remote island once visited by Heracles and Dionysus. Here they encounter the legacy of the wine-god—rivers of wine containing inebriating fish and a species of vine-women who speak a variety of human languages and attempt to engraft those sailors who attempt intercourse with them. From there they are blown to the moon by a typhoon. On their arrival they are arrested as illegal aliens by men flying on vultures and taken to the king, Endymion, who invites them to join his war against Phaethon, the king of the sun, over a colony he was hoping to establish on the planet Venus. They agree and find themselves engaged in an elaborate battle between cross-over species of birds with wings of lettuce leaves, aided by troops such as archers riding fleas and soldiers who move like hovercraft on

⁴³ See the bibliographical note on editions of Lucian in Nicolson (1948:264); for a bibliography on Lucian, see Macleod (1993:1363-1421) and, of course, the general studies of Lucian by Branham (1989), Jones (1986), Hall (1981), Anderson (1976b, 1976c), Baldwin (1973), and Allinson (1963).

⁴⁴ For the sources of Lucian's *Icaromenippus* 25f. (Aristophanes, Plato, Herodotus, and Ctesias), see Anderson (1980:159-161).

⁴⁵ Herodorus: *FGrHist* 31F22 = Arist. *HA* 563a7 thought that vultures were not earthly birds but come from a 'counter-earth', cf. Apul. *Met.* 11.24. In Lucian the moon men ride to battle on vultures (*VH* 1.11). For the moon as a 'counter-earth', see Burkert (1972:232f.).

⁴⁶ On the *True Histories*, see Georgiadou and Larmour (1993, 1998a, 1998b), Rütten (1997), Anderson (1996).

the side of Endymion, and huge flying ants reinforced by archers on gnats in the army of Phaethon. Endymion employs lunar spiders to construct a web between the moon and Venus in order to transport his infantry there. After an initial success, however, his forces are beaten back and he is finally defeated by the construction of a wall that prevents the light of the sun from reaching the moon (thus bringing about a lunar eclipse). The two sides agree to a peace treaty. Lucian goes on to describe a variety of unusual methods of homosexual reproduction by men on the moon (there are no women—see further on this below), their diet of smoke and lack of a digestive system, their ability to secrete milk and honey, their clothes of flexible glass, and their detachable eyes and ears. The travellers also witness how the inhabitants of the moon are able to hear and see what happens on the earth by means of a mirror suspended over a well. On their departure they are given parting gifts by Endymion but conveniently lose these before their return home.

Lucian's True Histories is clearly the inspiration for the later reworkings of the "Moon Hoax" material in France. Locke's series of articles in *The Sun* had been followed by a number of consolidated reprints of the material in English, and translations into French (in 1835 and again in 1836), German, and Italian (by two publishers). The 1836 French version, or rather expropriation, is the most original.⁴⁷ It distinguished three races of inhabitants on the moon (uncannily resembling the class structure of nineteenth-century France). The first, the Selenians, were said to be about two feet eight inches tall, and winged. The sexes were distinguished by a different colour of feathers, the females being delicate in form, vigorous, and harmoniously proportioned. They enjoyed hunting and fishing for crustaceans with their fingers, but were frequently wounded by their prey. Their blood was not red but milky-white. Their clothing resembled a loin-cloth and they lived in castles. The second type, the so-called vespertiliones, or bat-men, were four feet tall, yellowish-grey in colour, and without feathers. The females differed from the males in the length of their wings. These beings were more heavily built and dishevelled from hard work in the fields. They appeared to act as slavepaedagogues to the children of the Selenians (the classical allusions here are explicit). They frequently fought against a more savage kind of *vespertilio* and sometimes rose up against the Selenians, capturing them and committing atrocities against them. The vespertiliones were in fact cannibals, and ate the children of the Selenians without hesitation. The third race resembled beavers. They were much the same height as the *vespertiliones* but appeared more intelligent. Like the other inhabitants of the moon they were two-footed.

The narrative continues to describe the mating ritual of the Selenians. This took place on a conical mountain surrounded by *vespertiliones* holding stakes to form a *castrum* around the hill. The cone contained a lake with a dark-blue crystal rock in the centre on which a female Selenian waited supinely and immobile. On a signal given by a *vespertilio* the male Selenians flew in low circles around the rock one after another in single file until they fell into the water. However, when the female identified her mate she indicated this by opening her wings and fluttering them a few times. At this point the narrator notes that, despite this elaborate custom, fidelity was not constantly upheld by the Selenians.⁴⁸ He continues to describe the mating of the Selenians as observed through the telescope (in the interests of science, of course). The text describing the reproductive organs of the Selenians is discreetly given in Latin:

⁴⁷ The Italian edition of 1836 follows the French to some extent in this respect. It purports to give a number of fragments of the full account of "Herschel". These fragments are entitled: *nozione astronomiche, selenografia, razze lunari (fisiologia, guerre), osservazione selenologiche, cerimonie nuziali, delle abitazioni.*

⁴⁸ See the current interest in the sexual lives of penguins in the television documentary, *March of the Penguins* (Chalet & Maison 2005).

1. Nec istis sicut feminis vulva supposita; sed altius et propter umbilicum. Stant in copulando Lunarii: brevis conjunctio et duplex; namque ab ore simul et genetricibus membris amplectuntur, ut duobus modis aligerum et terrestrium donati, duobus ideo fruantur in copulatu.

2. Lunariam inter et vespertilionem horrescit natura coitum; huic namque repugnans intemperantia virgae.

1. Nor do they have a vulva down below like women—it is higher up near the bellybutton. The moon-men stand during copulation. Intercourse is short and double the fun, for they embrace at the mouth and with their reproductive organs at the same time they have two sources of pleasure in copulation, as they are endowed with two kinds of sexual organs, those of birds and those of land animals.

2. Nature shudders at intercourse between a moon-woman and a bat; for the inability to take the graft prevents this.⁴⁹

This passage picks up on Lucian's account (*True Histories* 1.22—bowdlerized by Fowler) of alien modes of reproduction among the moon creatures. There are no women on the moon and how consequently there is only a homosexual mode of reproduction there. Men up to the age of twenty-five play the part of the wife; those older than that age act as husbands. Babies are conceived in the calf of the leg.⁵⁰ Other moon-men reproduce by planting their right testicles in the ground. This grows into a phallic tree that bears large acorn-like fruit from which babies are hatched. Lucian also describes the fatal consequences of sexual intercourse between his men and the vine-women (*VH* 1.8)—they become engrafted to the vines—a detail perhaps alluded to (although with the opposite effect) in the phrase *intemperantia virgae* mentioned above.⁵¹ The inability of different species to reproduce from each other reveals a contemporary interest in Darwinian ideas.

There is little point in attempting to prove further connections between Lucian on the one hand and the narratives of Locke, Poe, Tucker, and accounts of the 'Moon Hoax' on the other.⁵² After all, for a hoax to be effective it must avoid recognition as a work of fictional literature, so whereas Lucian states openly in the *True Histories* (1.4) that he is writing fiction, the American authors set out to give the impression of exact realism. In a sense though the issue of fictionality is raised by all three authors (Lucian, Locke, and Poe), although in different ways.⁵³ There are also striking resemblances between the "Moon Hoax" articles and Lucian in respect of the cross-over species envisaged by both. Where Lucian has birds with wings of lettuce-leaves, for example (*True Histories* 1.13), Locke has a hybrid man-bat species. Such hybrids would have attracted the interest of early nineteenth-century readers, who would have been very aware of the debate on evolutionary biology that was current at the time.

⁴⁹ The final clause of this passage is obscure. In my translation, I take *intemperantia* in the sense of "inability to control" but what is *virga*? Lewis and Short (s.v. "virga") gives the meanings "graft", "twig", "rod", "staff", "magic wand", "membrum virile". A sexual interpretation such as "lack of restraint in respect of the *membrum virile*" is suggested by the general sense of the passage but not by the immediate context. The reading required appears to be something like "inability to take the graft".

⁵⁰ Lucian may be parodying the myth of the birth of Dionysus from the thigh of Zeus here. For the myth, see Gantz (1993:112) and the sources discussed there, particularly *Homeric Hymn to Dionysos*, Herodotus 2.146, Euripides *Bakchai* 89-98, and the red-figure *lekythos* of the Alkimachos Painter (Boston 95.39).

⁵¹ The sexual episodes in the *True Histories* are discussed by Larmour (1997). See also Levine (1991:31-33) on male prisoners bound together by their sexual organs, correcting Devereux (1980:63-68).

⁵² On the influence of Lucian on Poe's *Narrative of Arthur Gordon Pym of Nantucket* (1838), see Marsh (1998:208-209); Larmour (1997).

⁵³ For the issue of lies and fiction, see (Gill and Wiseman 1994); for this issue in Lucian, see Georgiadou and Larmour (1998a:1-4).

There are nevertheless other significant general similarities between Lucian, Locke, Poe, and Tucker. In the first place, most of these accounts develop the idea of observing the moon or the earth from the vantage point of the other planet. In Lucian, Menippus takes care to explain fully to his friend how Empedocles, who was living on the moon after leaping into a volcanic crater,⁵⁴ advised him to pump his right arm (the one with the eagle's wing) so as to give him the sharp sight of that bird (Icar. 12-15). He does so and finds himself able to see ou κατὰ ἔθνη μόνον καὶ πόλεις, ἀλλὰ καὶ αὐτοὶ σαφῶς οἱ πλέοντες, οἱ πολεμοῦντες, οἱ γεωργοῦντες, οἱ δικαζόμενοι ("not only nations and cities, but also the people themselves clearly to be seen sailing, fighting, and arguing lawsuits", Icar. 12). In the True Histories (1.26) Lucian is able to see in a mirror suspended over a shallow ditch: $\pi \dot{a}\sigma a \zeta \mu \dot{\epsilon} \nu \pi \dot{\alpha} \lambda \epsilon_i \zeta$, $\pi \dot{a}\nu \tau a \delta \dot{\epsilon} \, \ddot{\epsilon} \theta \nu \eta \, \delta \rho \hat{a} \, \ddot{\omega} \sigma \pi \epsilon \rho$ $\dot{\epsilon}\phi\epsilon\sigma\tau\dot{\omega}$, $\dot{\epsilon}\kappa\dot{a}\sigma\tau\sigma\iota$ ("one sees all the cities, all the nations of the world as if one was standing next to each of them"). The question of telescopy is of course crucial to the "Moon Hoax". Herschel's instrument had the power to magnify objects 42000 times, which Locke claimed would enable the viewer to see "objects of little more than eighteen inches in diameter" and even to study the entomology of the moon when using the telescope as a "second magnifier".⁵⁵ Poe too makes use of technology to enhance his vision: "Bringing my telescope to bear upon it [a small black shape on the earth] I plainly discerned it to be a British ninetyfour gun ship, close-hauled, and pitching heavily in the sea with her head to the W.S.W." (Quinn 1984:964, cf. also 971). However, whereas Lucian makes use of the ability to see what was happening on earth to expose the perversity of human morals and the vanity of human desires, Poe merely comments on the appearance of the planet from his perspective (Quinn 1984:974) and is often more interested in the overall view than in particular details. In Tucker's account a telescope is used to pick out details of the earth-such as the prospect of Africa—as the capsule of Atterley and the Brahman ascends to the moon.⁵⁶

A second common feature in these accounts is satire of the follies of science. Menippus excoriates the pretentious mystifications of the philosophers / scientists of his day, especially those who pretend to be able to provide measurements of the universe and the planets within it, when they are unsure of the distance between Megara and Athens.⁵⁷ He is also incensed that these men claim to know that there is life on the moon and that the sun is a burning mass of fire (*Icar.* 6-7).⁵⁸ The inclusion of such scientific material has led to the claim that Lucian's *True History* belongs to the genre of science fiction, albeit science fiction that is critical of contemporary society.⁵⁹ The hoaxes of Poe and Locke also imply a degree of satire against

⁵⁴ The original sources for this legend are given in Diogenes Laertius 8.71f., 74f. See the full discussion in Wright (1981:15-17), who concludes that the truth about the philosopher's death was unknown. The story appears to have been an invention by Heraclides, who, according to Timaeus, also related that a man had dropped down to earth from the moon (DL 8.72).

⁵⁵ Locke's calculations are, of course, not correct. The moon is 384403 kilometres from the earth. A telescope with a magnification of 42000 times would therefore bring objects to a range of about nine kilometres. No animals can be seen in detail at this distance.

⁵⁶ The use of telescopes to view the moon features also in Chapter 24 of Jules Verne's *De la Terre a la Lune* (1865) and goes back to Kepler's *Somnium* (Nicolson 1948:46) and, I would argue, ultimately to Lucian.

⁵⁷ Popular distrust of the sophists goes back to Aristophanes' portrait of Socrates in the *Clouds* (esp. lines 219-235 where Socrates is gazing at the sun), see Ehrenberg (1943:273-78). A closer hypotext, however, is the fable of the astrologer who falls into a well while gazing at the stars (Daly 1961:40; Halm 72). For attempts to measure the distance between the moon and the earth, see Plutarch *On the Face on the Moon* 925d; 932b and passim, and Panchenko (2001:23-29) on ancient ideas about the sizes of the sun and moon. Burkert (1993:49-55) discusses the speculations of Heraclitus concerning the moon.

⁵⁸ Lucian may well be thinking of Anaxagoras' famous view that the sun was no more than a mass of red-hot metal $[\mu \dot{\nu} \partial \rho i \nu \nu \dots \partial i \dot{\alpha} \pi \nu \rho \nu \nu]$. According to Sotion (DL 2.12), Anaxagoras was prosecuted for impiety because of this statement. He was defended by Pericles, fined five talents and exiled. For the view that Lucian's *True History* is a philosophical parody, see Georgiadou and Larmour (1998b).

⁵⁹ Georgiadou and Larmour (1998a:45-48); Anderson (1996:556); Fredericks (1976); Swanson (1976).

contemporary science by the simple fact that their pseudo-erudition was aimed over the heads of the majority of their readers. Poe's narrator, Hans Pfaall, is inspired to undertake his journey by a treatise on speculative astronomy by a "Professor Encke of Berlin". He is struck by the "wild and sometimes unintelligible reasonings of the writer" (Quinn 1984:957). During his flight he is greatly preoccupied with the nature of the atmosphere of the earth and the moon, and indulges in much mathematical mumbo-jumbo concerning the geometry of these planets. Locke's descriptions of the construction of Herschel's telescope and the method of magnification employed are clearly nonsensical, but his satire of the scientists Herschel, "Schroeter of Berlin", "Professor Frauenhofer" and others is restrained and apparent mainly in the literary style of the work, which parodies that of Herschel very effectively. Nevertheless, the idea of one of the most advanced scientific instruments of the day being transported to the other side of the earth and there erected in the relatively primitive conditions at the Cape at the time must have struck the author as incongruous at the least. Tucker's satire is overt and aimed at a number of current theories, especially the craniological "science" of Johann Kaspar Lavater (a Swiss physiognomist who lived between 1741 and 1801 and who is called Avarabet in Chapter 9 of the story), the Swiss educationalist Johann Pestolozzi (1746-1827), mentioned as Lozzi Pozzi in Chapter 11, and the ingenious physician and inventor Vindar (possibly Darwin) who proposes blood transfusions from animals to humans and an engine driven by gunpowder in Chapter 8.⁶⁰

A third characteristic of all of these texts is their unrestrained celebration of the imagination in respect of their descriptions of the moon and its inhabitants. Lucian drew on the phantasy of Aesop's fables, such as that of the Eagle and the Beetle (Icar. 10), and Aristophanes' Cloudcuckooland (True Histories 1.29) as models for his exuberant fiction. No reader could fail to be impressed by his bizarre biological extravaganzas. Locke's articles required a more careful approach. Nevertheless, his descriptions show a remarkably sustained effort of visualisation ranging from the technically complex instrument to the detailed images of the terrain, fauna, and flora of our satellite. His description of the lunar temples is exemplary: these structures, he says on day two of his series, are shaped like obelisks, with thirty to forty square crystal spires of a faint lilac hue. On day five he describes an equilateral temple constructed of blue saphire, whose roof is suspended by three mighty columns, six feet in diameter and reaching a height of seventy feet. The description of the roof is inspired: "The roof was composed of some yellow metal, and divided into three compartments, which were not triangular planes inclining to the centre, but subdivided, curbed, and separated, so as to present a mass of violently agitated flames rising from a common source of conflagration and terminating in wildly waving points." In Poe, as expected, Pfaall's interest in travelling to the moon is fuelled by his powerful imagination, and during his terrifying journey he is constantly tormented by horrors conjured by his fancy. He is capable of envisaging the appearance of the moon without the use of any optical device:

"Imagination, feeling herself for once unshackled, roamed at will among the everchanging wonders of a shadowy and unstable land. Now there were hoary and timehonored forests, and craggy precipices, and waterfalls tumbling with a loud noise into abysses without a bottom. Then I came suddenly into still noonday solitudes, where no wind of heaven ever intruded, and where vast meadows of poppies, and slender, lilylooking flowers spread themselves out a weary distance, all silent and motionless forever. Then again I journeyed far down away into another country where it was all one dim and vague lake, with a boundary line of clouds. And out of this melancholy

⁶⁰ For the reception of Lucian's satire of philosophers in Wieland's *Die geheime Geschichte des Philosophen Peregrinus Proteus* (1791), see Braunsperger (1993).

water arose a forest of tall eastern trees, like a wilderness of dreams. And I have in mind that the shadows of the trees which fell upon the lake remained not on the surface where they fell, but sunk slowly and steadily down, and commingled with the waves, while from the trunks of the trees other shadows were continually coming out, and taking the place of their brothers thus entombed. 'This then,' I said thoughtfully, 'is the very reason why the waters of this lake grow blacker with age, and more melancholy as the hours run on.' But fancies such as these were not the sole possessors of my brain. Horrors of a nature most stern and most appalling would too frequently obtrude themselves upon my mind, and shake the innermost depths of my soul with the bare supposition of their possibility." (Quinn 1984:979f.)

Tucker, too, can be drawn into passages of extraordinarily fine sensitivity by the prospect of a lunar landing:

"After a short interval, I again looked at the moon, and found not only its magnitude very greatly increased, but that it was beginning to present a more beautiful spectacle. The sun's rays fell obliquely on her disc, so that by a large part of its surface not reflecting the light, I saw every object on it, so far as I was enabled by the power of my telescope. Its mountains, lakes, seas, continents, and islands, were faintly, though not indistinctly, traced; and every moment brought forth something new to catch my eye, and awaken my curiosity. The whole face of the moon was of a silvery hue, relieved and varied by the softest and most delicate shades. No cloud nor speck of vapour intercepted my view. One of my exclamations of delight awakened the Brahmin, who quickly arose, and looking down on the resplendent orb below us, observed that we must soon begin to slacken the rapidity of our course, by throwing out ballast. The moon's dimensions now rapidly increased; the separate mountains, which formed the ridges and chains on her surface, began to be plainly visible through the telescope; whilst, on the shaded side, several volcanoes appeared upon her disc, like the flashes of our fire-fly, or rather like the twinkling of stars in a frosty night."

The moon hoax of 1835-1836 and subsequent publications on this subject therefore owe much to Classical accounts of the moon and its inhabitants, both in method and substance. Despite the most obvious difference between Lucian, who openly advertises the falsity of his account in his preface, and Locke, who hides his purpose behind the authority of Herschel, and disguises his deceit under a wealth of scientific detail, there is much common groundespecially in respect of the satirical treatment of scientists and their ancient counterparts, the philosophers. There is nothing of Lucian's satire of historians and travel literature in Locke, but by tapping into the philosophical question of whether life exists elsewhere in the universe and the profound implications that result from that, by his fantastic descriptions of hybrids of the animal and vegetable worlds, by his representation of flight, and by his prescient imagination that bears at least some the characteristics of science fiction, Lucian provided a powerful model for the hoaxer and especially for his subsequent European elaborators. Once again, Lucian emerges as a surprising 'modern' writer, whose account of moon-beings provided an irresistible precedent for scientifically-minded readers of the early nineteenth century, preoccupied as they were with colonization, scientific advances in aviation, and the debate on Darwin's theory of evolution and its impact on conventional religion. Behind the fantasies of Locke and his emulators can also be seen the exuberant imagination of Classical writers such as Plato, Plutarch, and others. It is remarkable that a nineteenth-century scientific expedition to the Cape of Good Hope should have reawoken the spirit of ancient satire to such spectacular effect and with such far-reaching consequences. Batman of Gotham City would appear to have had a long line of Old World ancestors.

BIBLIOGRAPHY

- Allinson, F G 1963. Lucian: Satirist and Artist. New York: Cooper Square Publishers.
- Anderson, G 1976a. Lucian's Classics: Some Short Cuts to Culture. BICS 23:59-68.
- Anderson, G 1976b. Lucian: Theme and Variation in the Second Sophistic. Leiden: E J Brill.
- Anderson, G 1976c. Studies in Lucian's Comic Fiction. Leiden: E. J. Brill.
- Anderson, G 1980. Some Sources of Lucian, Icaromenippus 25f. Philologus 124:159-161.
- Anderson, G 1982. Lucian, A Sophist's Sophist. YClS 27:61-92.
- Anderson, G 1993. Lucian: Tradition versus Reality. ANRW 2.34.2:1422-1447.
- Anderson, G 1996. Lucian's Verae Historiae. In Schmeling, G (ed) The Novel in the Ancient World, 555-561. Leiden: E J Brill.
- Anonymous 1835. Découvertes dans la Lune, Faites au Cap de Bonne-Espérance par Herschel Fils Astronome Anglais. Traduit de l'Américain de New-York Septembre 1835. Paris: Babeuf.
- Anonymous 1836. Delle scoperte fatte nella luna dal signor Herschel. Torino: Giuseppe Vaccarino.
- Anonymous 1836. Histoire de la lune et des étonnantes découvertes faites par Sir J. Herschel a l'aide d'un télescope qui possède jusqu'a ce jour la plus grand puissance amplificatrice. Paris:
 - Camuseaux.
- Anonymous 1836. John Herschel's neueste Entdeckungen auf dem Cap den Mond und seine Bewohner betreffend. Hamburg: Johan Philipp.
- Anonymous 1836. Pubblicazione completa delle nuove scoperte di Sir John Herschel nel cielo australe e nella luna. Milano: Lorenzo Sonzogno.
- Anonymous 1836. Some Account of the Great Astronomical Discoveries Lately Made by Sir John Herschel at the Cape of Good Hope. London: Effingham Wilson.
- Anonymous 1853. Locke among the Moonlings. Southern Quarterly Review 24:501-514.
- Baldwin, B 1973. Studies in Lucian. Toronto: Hakkert.
- Barnard, K H 1954. Sir John Herschel and the S.A. Literary and Scientific Institution. Quarterly Bulletin of the South African Library 9:10-11, 13.
- Barton, W H 1937. The Moon Hoax: The Greatest Scientific Fraud Ever Perpetrated. Sky February: 6-10, 22; March 10-11, 23-25; April 10-11, 22-24, 28.
- Baumbach, M 2002. Lukian in Deutschland: eine Forschungs- und Rezeptionsgeschichtliche Analyse vom Humanismus bis zur Gegenwart. München: Fink.
- Bentley, C & Turner, J G (eds) 1990. Paltock, R: Peter Wilkins. Oxford: Oxford University Press.
- Bicknell, P J 1967a. Lunar Eclipses and the Selenites. Apeiron 16-21.
- Bicknell, P J 1967b. A Note on Xenophanes' Astrophysics. Acta Classica 10:135-136.
- Bicknell, P J 1969. Anaximenes' Astronomy. Acta Classica 12:53-85.
- Billault, A (ed.) 1994 Lucien de Samosate: Actes du colloque international de Lyon organisé au Centre d'Études Romaines et Gallo-Romanes les 30 septembre- 1er octobre 1993. Lyon: De Boccard.
- Bittner, W 1962. Poe: A Biography. London: Elek Books.
- Branham, R B 1989. Unruly Eloquence: Lucian and the Comedy of Traditions. Cambridge, Mass.: Harvard University Press.
- Braunsperger, G 1993. Aufklärung aus der Antike: Wielands Lukianrezeption in seinem roman 'Die geheime Geschichte des Philosophen Peregrinus Proteus'. Frankfurt am Main: Lang.
- Burkert, W (tr. Minar, E L). 1972. *Lore and Science in Ancient Pythagoreanism*. Cambridge, Mass.: Harvard University Press.
- Burkert, W 1993. Heraclitus and the Moon: The New Fragments in P. Oxy 3710. *Illinois Classical Studies* 18:49-55.
- Collins, W L 1897. Lucian. Edinburgh and London: William Blackwood and Sons.
- Cornford, F M 1934. Innumerable Worlds in Presocratic Philosophy. Classical Quarterly 28:1-16.
- Crowe, M J 1981. New Light on the Moon Hoax. Sky and Telescope 62:428-429.

- Crowe, M J 1986. *The Extraterrestrial Life Debate 1750-1900: The Idea of a Plurality of Worlds from Kant to Lowell*. Cambridge: Cambridge University Press.
- Daly, L W 1961. Aesop Without Morals. 1-90. New York & London: Thomas Yoseloff.
- De La Caille, N L 1751. Suite des observations faites au Cap de Bonne-Espérance, pour la parallexe de la lune, avec un sextant de six pieds de rayon. Mem. Acad. de Sciences. Paris.
- De La Caille, N L 1763a. Coelum australe stelliferum; seu observationes ad construendum stellarum australium catalogum. Paris.
- De La Caille, N L 1763b. Journal historique du voyage fait au Cap de Bonne-Espérance. Paris: Guillyn.
- Devereux, G 1980. An Undetected Absurdity in Lucian's A True Story 2.26. Helios 7.1:63-68.
- Di Gregorio, L 1968. Sugli apista uper Thoulen di Antonio Diogene. Aevum 42:199-211.
- Dillon, J 2004. Dämonologie im frühen Platonismus. In Baltes, M, Lakmann, M-L, Dillon, J, Donini, P, Häfner, R & Karfíková, L (eds), Apuleius: De Deo Socratis / Über den Gott des Sokrates, 123-141. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Donini, P 1992. Science and Metaphysics: Platonism, Aristotelianism, and Stoicism in Plutarch's *On the Face in the Moon*. In Dillon, J & Long, A A (eds), *The Question of Eclecticism: Studies in Later Greek Philosophy*, 126-144. Berkeley: University of California Press.
- Duncan, D 1979. Ben Jonson and the Lucianic Tradition. Cambridge: Cambridge University Press.
- Ehrenberg, V 1943. *The People of Aristophanes: A Sociology of old Attic Comedy*. Oxford: Basil Blackwell.
- Evans, D S 1981a. The Great Moon Hoax I. Sky and Telescope September: 196-198.
- Evans, D S 1981b. The Great Moon Hoax II. Sky and Telescope October: 308-311.
- Fauth, W 1978. Astraios und Zamolxis: ueber Spuren pythagoreischer Aretalogie im Thule-roman des Antonius Diogenes. *Hermes* 106:220-41.
- Fernie, D 1976. '... In the Country of the Hottentots': Maclear and Herschel in South Africa. In Fernie, D (ed) *The Whisper and the Vision: The Voyages of the Astronomers*, 57-105. Toronto: Clarke, Irwin & Company.
- Fowler, H W & Fowler, F G (trans.) 1905. Lucian: The Works of Lucian of Samosata: Complete with Exceptions Specified in the Preface. Volume I-IV. Oxford: Oxford University Press.
- Fredericks, S C 1976. Lucian's True History as SF. Science-fiction Studies 3:49-60.
- Gantz, T 1993. *Early Greek Myth: A Guide to Literary and Artistic Sources*. Baltimore and London: The Johns Hopkins Press.
- Georgiadou, A & Larmour, D H J 1993. Lucian and Historiography: De Historia Conscribenda and Verae Historiae. *ANRW* 2.34.2:1448-1509.
- Georgiadou, A & Larmour, D H J 1997. Lucian's Vine Women (*VH* 1.6-9) and Dio's Libyan Women (Orat. 5): Variations on a Theme. *Mnemosyne* 50.2:205-209.
- Georgiadou, A & Larmour, D H J 1998a. Lucian's Science Fiction Novel True Histories: Interpretation and Commentary. Leiden: E J Brill.
- Georgiadou, A & Larmour, D H J 1998b. Lucian's Verae Historiae as Philosophical Parody. *Hermes* 126.3:310-325.
- Gill, C & Wiseman, P (eds) 1994 *Lies and Fiction in the Ancient World*. Austin: University of Texas Press.
- Godwin, F 1638. *The Man in the Moon, or the Discourse of a Voyage thither by Domingo Gonzalez.* Ottawa: Scolar Press.
- Gove, P B 1961. The Imaginary Voyage in Prose Fiction: A History of its Criticism and a Guide for its Study, with an Annotated Check List of 215 Imaginary Voyages from 1700 to 1800. London.
- Graap, N 2001. Fénélon: Dialogues des morts comprises pour l'éducation d' un prince: Sudien zu Fénélons Totengesprächen in Traditionszusammenhang. Münster.
- Green, R L 1975. Into Other Worlds: Space Flight in Fiction from Lucian to Lewis. New York.
- Griggs, W N 1852. The Celebrated 'Moon Story', Its Origin and Incidents. New York.
- Gruithuisen, F v P 1824. Entdeckung vieler deutlichen Spuren der Mondbewohner, besonders eines collosalen Kunstgebäudes derselben. Archiv für die gesammte Naturlehre 1:129-171; 257-322.
- Gundel, W 1933. Mond. In Pauly-Wissowa (ed) *Realencyclopädie der Altertumswissenschaft*, 75-105. Stuttgart: Alfred Druckenmüller.
- Hall, J A 1981. Lucian's Satire. New York: Arno Press.

Hamilton, W 1934. The Myth of Plutarch's De Facie. Classical Quarterly 28:24-30.

- Harmon, A M (ed) 1913, 1960-1962. Lucian: Vols. I-V: New York/London: Heinemann.
- Hartwell, D G (ed) 1975. Tucker, G: A Voyage to the Moon with some Account of the Manners and Customs, Science and Philosophy of the People of Morosofia and other Lunarians. Boston: Gregg Press.
- Heggs, D A 2001. *Discourse, Fantasy and Representation: Reading Batman and Superman.* Manchester: Manchester Metropolitan University.
- Herschel, J F W 1847. Results of Astronomical Observations Made during the Years 1834-1838 at the Cape of Good Hope Being the Completion of a Telescopic Survey of the Whole Surface of the Visible Heavens Commenced in 1825. London: Smith, Elder & Co.
- Herschell, J F W 1833. A Treatise on Astronomy. London: Longman, Rees, Orme, Brown, Green, Longman.
- Jannsen, A 1981. Francis Godwin's The Man in the Moon: Die Entdeckung des Romans als Medium der Auseinadersetzung mit Zeitproblemen. Frankfurt am Main: Lang.
- Jones, C P 1986. *Culture and Society in Lucian*. Cambridge, Mass. and London: Harvard University Press.
- Kilburn, K (ed) 1968. Lucian: Vol. VI. Cambridge Mass., London: Heinemann.
- Larmour, D H J 1997. Sex with Moonmen and Vinewomen: The Reader as Explorer in Lucian's *Verae Historiae*. Intertexts 1.2:131-146.
- Levine, D B 1991. Lucian True History 2.26 Reconsidered: Lust and Punishment. Helios 18:31-33.
- Ley, W 1963. Watchers of the Skies. London: Sidgwick & Jackson.
- Locke, R A 1859. The Moon Hoax or A Discovery that the Moon has a vast Population of Human Beings, illustrated with a View of the Moon as seen by Lord Rosse's Telescope. New York: William Gowans.
- Macleod, M D (ed) 1961-1967. Lucian: Vol. VII-VIII. Cambridge Mass., London: Heinemann.
- Macleod, M D (ed) 1974. Lucian: Opera. Vols. 1-3. Oxford: Oxford University Press.
- Macleod, M D 1993. Lucianic Studies since 1930. ANRW 2.34.2:1363-1421.
- Marsh, D 1998. Lucian and the Latins: Humor and Humanism in the Early Renaissance. Recentiores: Later Latin Texts and Contexts. Ann Arbor: The Universit of Michigan Press.
- Mattioli, E 1980. Luciano e l'umanesimo. Napoli: Istituto italiano per gli studi storici.
- Mayer, C A 1984. Luciende Samosate et la Renaissance françoise. Genève: Slatkine.
- McIntyre, D 1951. An Astronomical Bi-Centenary: The Abbé de Lacaille's Visit to the Cape, 1751-1753. Cape Town: The Astronomical Society of South Africa.
- Morgan, J R 1985. Lucian's *True Histories* and the *Wonders beyond Thule* of Antonius Diogenes. CQ 35.2:475-90.
- Moss, S P 1970. Poe's Major Crisis. Durham, North Carolina: Duke University Press.
- Nicolson, M H 1936. A World in the Moon. Northampton, Mass.: Smith College Studies in Modern Languages 17.2.
- Nicolson, M H 1940. Cosmic Voyages. ELH 7:83-107.
- Nicolson, M H 1948. Voyages to the Moon. New York: Macmillan.
- O'Brien, F M 1928. Richard Adams Locke's Moon Hoax. In O'Brien, F M (ed.) *The Story of The Sun*, 37-57. New York: D Appleton & Company.
- O'Neill, D 1989. Batman 1: The Challenge of the Man-Bat. London: Titan.
- Panchenko, D 2001. Aristarchus of Samos on the Apparent Sizes of the Sun and Moon. In Althoff, J, Hershoff, B & Wörhle, G (eds), *Antike Naturwissenschaft und ihre Rezeption*, 23-29. Trier: Wissenschaftliche Buchgesellschaft.
- Peters, S 1986. Ludwig Holberg's menippeische Satire: das iter subterraneum und seine Beziehungen zur antiken Literatur. Frankfurt am Main: Lang.
- Poe, E A 1840. Hans Phaall. In Poe, E A (ed) *Tales of the Grotesque and Arabesque*, 25-96. Philadelphia: Lea and Blanchard.
- Poe, E A 1846. Richard Adams Locke. In Thompson, G R (ed) *Edgar Allan Poe: Essays and Reviews*, 1214-1222. New York: The Library of America.
- Préaux, C 1973. La lune dan la pensée grecque. Académie roayle de Belgique: Mémoires de la classe de lettres 61.4:1-393.

- Proctor, R A 1878. The Lunar Hoax. In Proctor, R A (ed.) *Myths and Marvels of Astronomy*, 241-266. London: Chatto & Windus.
- Quinn, P F (ed) 1984 Edgar Allan Poe: Poetry and Tales. New York: The Library of America.
- Reardon, B P 1994. Lucien et la fiction. In Billault, A (ed) Lucien de Samosate: Actes du colloque international de Lyon organisé au Centre d'Études Romaines et Gallo-Romanes les 30 septembre-1er octobre 1993, 9-12. Lyon: De Boccard.
- Reaves, G 1954. The Great Moon Hoax of 1835. Griffith Observer November: 126-134.
- Reyhl, K 1969. Antonios Diogenes Untersuchungen zu den Roman-Framenten der "Wunder jenseits von Thule" und zu den "Wahren Geschichten des Lukian". Diss. Tübingen.
- Robinson, C 1979. Lucian and his Influence in Europe. London: Duckworth.
- Romm, J 1989. Lucian and Plutarch as Sources for Kepler's *Somnium*. Classical and Modern Literature 9:97-107.
- Romm, J 1994. Novels beyond Thule: Antonius Diogenes, Rabelais, Cervantes. In Tatum, J (ed.) *The Search for the Ancient Novel*, 101-116. Baltimore and London: Johns Hopkins University Press.
- Runia, D T 1989. Xenophanes on the Moon: A Doxographicum in Aëtius. Phronesis 34:245-269.
- Rütten, U 1997. Phantasie und Lachkultur: Lukians "Wahre Geschichten". Tübingen: Gunter Narr.
- Seavey, O 1975. The Moon Hoax. Boston: Gregg Press.
- Swain, S 1992. Antonius Diogenes and Lucian. LCM 17.5:74-76.
- Swain, S 1994. Dio and Lucian. In Morgan, J R and Stoneman, R (eds), *Greek Fiction: The Greek Novel in Context*, 166-180. London: Routledge.
- Swanson, R A 1976. The True, the False, and the Truly False. Science-fiction Studies 3:228-239.
- Symons, J 1978. The Tell-Tale Heart: The Life and Works of Edgar Allan Poe. London: Faber & Faber.
- Thompson, G R (ed.) 1984 Edgar Allan Poe: Essays and Reviews. New York: The Library of America.
- Turner, P (trans.) 1961. Lucian: Satirical Sketches. Harmondsworth: Penguin.
- Walker, I M (ed) 1986 *Edgar Allan Poe: The Critical Heritage*. London & New York: Routledge & Kegan Paul.
- Warner, B 1995. *The Royal Observatory, Cape of Good Hope 1820-1831: The Founding of a Colonial Observatory*. Dordrecht: Kluwer Academic Press.
- Wilkins, J 1640. *The Discovery of a World in the Moone, or a Discourse tending to prove that 'tis probable there may be another habitable World in that Planet.* London: John Maynard.
- Wright, M R (ed) 1981. *Empedocles: The Extant Fragments*. New Haven and London: Yale University Press.