

Hester Pulter (c. 1596--1678). A Woman Poet and the New Astronomy

Sarah HUTTON
Aberystwyth University

The writings of Hester Pulter were discovered only very recently in the Brotherton Library, Leeds¹. One of the striking features of her poetry is her use of imagery drawn from early modern science and astronomy. Furthermore, the cosmology she imagines in her poems is, in early terms of its time, very up-to-date since it is identifiably Galileian in its detail. My paper discusses Hester Pulter's use of astronomy in her poetry, relating it to the contemporary scientific context, and considering possible sources for her knowledge of astronomy.

Life and Writings

The writings contained in the Brotherton Manuscript comprise, firstly a collection of poems entitled "Poems Breathed forth by the Nobel Hadassas"², but also inscribed "Poems written by ye right Honorable H.P." The second section of the manuscript contains a collection of "Emblemes" or "The sighes of a sad soule emblematically breath'd forth by the noble Hadassah". The manuscript also contains, thirdly, an incomplete romance entitled "The unfortunate Florinda". It is with the first group of "Poems written by ye right Honorable H.P." that I shall be concerned in this paper.

Very little is known about the author. Beyond the fact that she was the sixth daughter of James Ley, first Earl of Marlborough, and that she married Arthur Pulter in 1623, much of what is known about her derives from the poems themselves³. A good number of her poems are occasional pieces, written to mark

¹ Leeds, Brotherton Library MS Ltq 32-c. (Hereafter cited as Brotherton MS). This MS was discovered in 1995 during the census of women's manuscript writing undertaken by the Perdita Project. The manuscript is 169 folios, largely in scribal hand. For a description of the MS, see <http://human.ntu.ac.uk/research/perdita/frames/html/index>. I wish to thank the Brotherton Library for permission to quote from the manuscript. I am grateful to Elizabeth Clarke for bringing Hester Pulter's poems to my attention and for inviting me to present an earlier version of this paper at the MLA panel on Hester Pulter in Washington, 2004. I also thank Stephen Clucas for inviting me to present another version at the EMPHASIS seminar, London in 2006.

² Hadassas is a Hebrew equivalent of Esther – or Hester.

³ See the entry on Hester Pulter by Mark Robson in the *Oxford Dictionary of National Biography*.

events of significance to her in both public and private life: public events like the execution of the king, private experience, like the birth or death of her children, and her own illness⁴. These dated poems give important points of connection to the circumstances of her life and times, not least the fact that she was a royalist. Her royalism sets her apart from her sister, Margaret Ley, who was the addressee of a sonnet by John Milton, which celebrates her father⁵. Although there is no evidence of Hester having any contact with Milton, the link between Milton and her sister is one of several intriguing links to literary contemporaries: several of her poems show acquaintance with writers of her day – e.g. Donne and Marvell⁶. More intriguing still are the clear pointers that her poems give of an up-to-date knowledge of contemporary science. That a woman should be conversant with the most modern and most coherent cosmological theory of the time is especially intriguing. For the little we know about women's education suggests knowledge of astronomy was not high on the traditional female educational agenda – certainly not new fangled ideas, like Galileo's. Hester Pulter was, of course, not the only seventeenth-century woman interested in the science of her day, but she was one of a tiny few. The contemporary of hers best known for her interest in science was, of course, Margaret Cavendish, Duchess of Newcastle⁷. There were also the translators of Lucretius, Mary Evelyn and Lucy Hutchinson⁸. But, as with her literary formation, there is no evidence of any link between Pulter and any of these figures, despite the tantalising fact that she wrote a poem commemorating the death

Also Margaret Ezell, "The Laughing Tortoise: Speculation on Manuscript Sources and Book History" in *English Literary Renaissance*, 2008, p. 331-355. On Pulter's poetry, see the articles in *Literature Compass* 2, 2005: Elizabeth Clarke, "Introducing Hester Pulter and the Perdita Project", *ibid.*, 159, p. 1-3; Jayne Archer, "A 'Perfect Circle'? Alchemy in the Poetry of Hester Pulter", *ibid.*, 160, p. 1-14; Sarah Ross, "Tears, Bezoars and Blazing Comets", *Gender and Politics in Hester Pulter's Civil War Lyrics*, *ibid.*, 161, p.1-14; Mark Robson, "Reading Hester Pulter Reading", 162, p. 1-12. Also Mark Robson, "Swansongs: Reading Voice in the Poetry of Lady Hester Pulter" in *Manuscript Studies 1100-1700*, 9, 2000, p. 238-56. Alice Eardsley is currently preparing an edition of Pulter's writings.

⁴ e.g. "Made when I was sick 1647" Brotherton MS 48r, "Made when I was not well, April, 20, 1655", *ibid.*, 73v, "The Hope. January 1665", *ibid.*, 88r. "To my Dearest J.P., M.P. P.P., they beeing at London, I at Bradfield".

⁵ Milton, Sonnet X, "To the Lady Margaret Ley" celebrates her father as "that good Earl", claiming he was a paragon of virtue as Lord Chief Justice (a claim which does not, in fact, withstand scrutiny).

⁶ See for example, "The Garden or The Contention of Flowers to my Deare Daughter Mrs A[nne] [Pulter] at her desire wrottem".

⁷ On Margaret Cavendish and science see especially, *A Princely Brave Woman: Essays on Margaret Cavendish, Duchess of Newcastle*, Stephen Clucas (ed.), Ashgate, 2003; Jacqueline Broad, "Margaret Cavendish and Joseph Glanvill : science, religion, and witchcraft" in *Studies in History and Philosophy of Science*, 38, 2007, p. 493-505; Sarah Hutton, "Anne Conway, Margaret Cavendish and Seventeenth-Century Scientific Thought" in Lynette Hunter and Sarah Hutton, *Women, Science and Medicine, 1500-1700*, Stroud, Alan Sutton, 1997; Lisa T. Sarasohn, "A Science Turned Upside Down: Feminism and the Natural Philosophy of Margaret Cavendish" in *The Huntington Library Quarterly*, 47, 1984, p. 289-307.

⁸ On Mary Evelyn, see Frances Harris, "Living in the Neighbourhood of Science", in Hunter and Hutton, *Women, Science and Medicine*, p. 198-217. On Lucy Hutchinson, see *Order and Disorder*, David Norbrook (ed.), Oxford, Blackwell, 2001.

"Hester Pulter: A Woman Poet and the New Astronomy"

of Margaret Cavendish's brother, Sir Charles Lucas, one of the Royalist heroes executed after the siege of Colchester in 1648⁹. The important point appears to me to be not whether Pulter knew these other women, but that, collectively, they are evidence of female interest in natural philosophy in this period.

Hester Pulter did not write "scientific poetry" in the sense that the purpose of her poems was to convey scientific theory or scientific knowledge in poetic form. The allusions to contemporary science in her poems are embedded within a wider context where they share the poetic purpose of her other poems, namely spiritual reflection. The large majority of her poems are strongly spiritual in temper, many of them framed within the moralising tradition of emblem literature. (I am not going to discuss the group entitled "Emblemes" here). Much of the religious feeling she expresses entails a reworking of conventional pieties which dwell on mortality and mutability. However, the temper of her poems is not all doom and gloom. On the contrary, sadness and acute consciousness of transience are balanced by – even outweighed by – spiritual uplift, infused with hope and joy. Like George Herbert (e.g. in his poem "Sweet day so cool, so calm, so bright"), she sees beyond the dissolution of the fragile beauties of the world to the true life hereafter. Her contemplation of her soul's release from her body, does not dwell on the corruptibility of the material, but, like Marvell's "A Drop of Dew", anticipates the joys of return to God. Pulter's borrowings from astronomy and natural philosophy radiate the same spiritual optimism. She uses contemporary science and astronomy as a means of making unconventional adaptations of conventional spiritual motifs. An example of this is her poem, "The invocation of the Elements the longest Night in the year 1655"¹⁰, which reworks a traditional *soma sema* motif (the body as grave of the soul), in which the soul longs to be separated from the body. Like Donne in his "Holy Sonnets", Hester seeks to dissolve the bond between soul and body, so as to release her soul for flight to immortality, leaving sin and death behind. That all sounds conventional enough, but the poem is unusual because it takes the form of an appeal to the four elements, that is to say the constituents of the body. She addresses each element in turn, exhorting it to take the appropriate action to deconstruct corporeal entity. Although she uses the conventional trope of the sick soul ("afflicted soul"), the poem is far from morbid, with none of the contorted angst about the sin to be encountered in, for example, Donne's "Holy Sonnets". Strikingly, she addresses each element in terms of love and respect: Water is a "fair Nymph", Air, "the sweet refresher of Mankind", Fire, "noble and illustrious", Earth, her "beloved mother".

⁹ "On those two unparalleld friends, Sr G. Lisle and Sr C. Lucas who were shott to Death at Colchester", Brotherton MS, ff. 13v-15r. Pulter, like Cavendish during her early poetic career, was an atomist in natural philosophy. But, this by itself is not enough to argue for a link between them on grounds of shared natural philosophy. The atomism in question owed much to Lucretius, and Cavendish made a clear separation between philosophy and religion in her writings. Cavendish later repudiated atomism.

¹⁰ Brotherton MS, Item 42 (Verse), fols. 59v-61v.

Astronomy

The aspect of early seventeenth-century science which features in Hester Pulter's poetry most is astronomy. Furthermore, it is clear that she did not share the doubts and uncertainties about "the new astronomy" which John Donne articulates so memorably in "Anatomie of the World". Nor is there any trace of the fence-sitting agnosticism of Milton's *Paradise Lost*. Furthermore, she was not merely a Copernican, but a Galileian. The poems where her heliocentrism is most in evidence include "The Eclips", "The Center", "A solitary complainte", and "The Perfection of Patience and Knowledge". A good example of her interweaving of Galilean cosmology and personal spirituality is the poem inscribed, "written 1648, when I Lay Inn, with my Son John". This celebrates the freedom of her mind at a time of sickness when her body was weak and confined to bed. She imagines herself contemplating the night sky which she sees through bedroom window from her bed. As she admires the beauty of the sun, moon and planets she imagines her soul released from physical confinement, flying up to orbit with the heavenly bodies.

My thoughts beeing free I bid them take their flight
 Above the Gloomey shades of Death and Night
 They overjoyed with such a Large Commission
 Flew instantly without all intermission
 Up to that spheir where Nights Pale Queen doth run
 Round the Circumference of the Illustrious Sun [...].¹¹

The first thing we notice about her description of the heavenly bodies visited by her thoughts, is that she repudiates conventional poetic tropes. The moon, she says was *not* an allegorical figure,

...as Poets fain
 Guiding her Chariot with silver Rein
 Attir'd like som fair Nymph or virgin Queen
 With naked neck and Arms and Robes of Green.

The moon is not Endimion's Phoebe, but "another world". Although her technical terminology includes terms from the older, Ptolemaic astronomy (e.g. spheres), the cosmos which Hester contemplates is not the geo-centric universe of Ptolemy, but the heliocentric system of Copernicus. Furthermore, the details she gives in her description of the moon and planets indicate that the cosmos of her contemplations is the Copernican system as confirmed by Galileo. Not only is the moon imagined as another world, but the planets, Jupiter and Saturn, are encircled by moons: in Jupiter's case, "Four bright Attendants always hurrid Round", and around Saturn,

¹¹ *Ibid.*, Item 46 (Verse), fols.67r-68v.

"Hester Pulter: A Woman Poet and the New Astronomy"

"two sickly Cinthias rowl" (Saturn's rings were originally taken by Galileo to be moons). These details indicate familiarity with the world picture first presented by Galileo in his *Starry Messenger* (*Sidereus nuncius*) of 1610 (which reported the findings of his telescopic observations of the moon and planets), and which he defended in 1613 in *Letter to the Grand Duchess Cristina de' Medici* (*Lettera a Madama Cristina di Lorena, Granduchessa di Toscana*). Later, his *Dialogue Concerning the Two Great World Systems* (*Dialogo sopra i due massimi sistemi del mondo*) of 1632 compared the Ptolemaic and Copernican systems of the universe. Remarkably, Hester Pulter takes a Galilean world picture for granted. That she should be untroubled by the kind of doubts about the "new astronomy" which vexed John Donne is remarkable in itself, given that Copernicanism was still controversial in the 1640s. In the debates surrounding heliocentric theory in England, Galileo's *Sidereus Nuncius* and *Dialogo* played a seminal role, and attracted immediate interest on publication¹². Hester Pulter wears her knowledge of astronomy lightly – as is captured most vividly at the end of the poem, where the scene of imaginative contemplation of the heavens is abruptly closed off when she is suddenly (and literally) brought back to earth by the closing of the curtains over the window out of which she had been gazing – "my Mayds my Window Curtains Drew".

Another poem in which Pulter invokes the new astronomy is: "A Solitary Complaite", in which she contrasts her terrestrial confinement to the unending movement of the earth, moon, planets "Round / The Suns Bright Throne". Among them "Jupiter attended like a king" brings "Four Raidient Moons in his Train", as does "Saturn as many Following his Huge Spheir"¹³. (As in "As I lay in", Saturn's rings are taken to be moons). Identifying the sun as "the Fount of Life, & Light & Love" she goes on to develop a parallel with spiritual regeneration, asking God to "Irradiate my sad soul / That I about thy Glorious Thron may rowl".

The only poem where there is any hint that the cosmological system which Hester Pulter takes for granted (namely Copernicanism) might be in contention, is "The perfection of Patience and knowledg". The poem is a spiritual poem in which she looks forward to the resurrection of the dead when her soul will be restored to God and re-united with the divine Light of which it is a particle. It implicitly echoes St Paul (1. Corr: 3.12) that mortal knowledge is obscured, but in immortality our minds will be cleared ("for now we see in a glass darkly; but then face to face: now I know in part: but then shall I know even as also I am known"). Using metaphors of alchemical transformation (sublimation and calcination) she writes,

¹² Mordechai Feingold, "Galileo in England: the First Phase" in *Novita celesti e crisi del sapere. Atti del convegno internazionale di Stud Galileiani*, in Paulo Galluzzi (ed.), Florence, 1984, p. 41-20. See also Robert Westman, "The Reception of Galileo's 'Dialogue', a partial census of Extant copies", *ibid.*, p. 329-71.

¹³ Brotherton MS, Item 55 (Verse), fols.75r-v.

Then beeing perfect and sublim'd
 Wee shall discern this Globe Calcin'd:
 Then shall wee know these orbs of wonder
 Which in a maze wee now live under.¹⁴

The anticipated re-union with the divine after death, hardly figures in the main body of the poem – not until the last line. The knowledge described in the poem is entirely secular, specifically cosmological. The poem poses a string of questions which were current in the early seventeenth century, questions raised more acutely in the wake of the rivalry between the Copernican and Ptolemaic astronomical systems. Pulter describes the current state of knowledge as "a maze we now live under". These astronomical puzzles include the speed of the Sun's movement, the phases of the moon, how the morning and evening star are one and the same star, whether the earth revolves on its own axis, whether the sun remains motionless at the centre of the universe and doesn't actually rise and set. The key propositions in Copernicanism seem equally strange: heliocentrism and the triple motion of the earth, "are such wonders here below".

Hester Pulter, however, imagines that the answers will only be known after judgement when we view the world with perfect sight: "All this (and more) wee then shall know / Which are such wonders here below." This is not a scientific poem as such, but it is informed by contemporary scientific debates which serve as a paradigm for the state of spiritual ignorance and uncertainty that governs the earthly lives of immortal souls. "The perfection of Patience and knowledge" raises questions without giving definitive answers, but it does not do so in a sceptical manner.

There are other poems which make use of astronomical *topoi*, aside from the solar system itself. An example is "The Eclips", which is another spiritual reflection using the eclipses of both sun and moon built to contemplate fate and mortality. This topos itself is nothing new. But Pulter's use of it is not conventional. She does not employ traditional eclipse motifs according to which eclipses were portents, signs of the wrath of God etc. Rather, her idea of an eclipse is the "modern" view that eclipses are the result of the normal revolutions of the moon around the earth. Her earthly life is a journey through many such revolutions according to the common law of nature: "I my passage make through Revolution / Humbly obedient to my makers Lawes"¹⁵.

Besides her use of astronomy, there are plenty of references to natural philosophy throughout her poems. The implied philosophy of nature in Hester

¹⁴ *Ibid.*, Item 40 (Verse), fols.57r-58r.

¹⁵ *Ibid.*, Item 2 (Verse), fols.3r-4r.

"Hester Pulter: A Woman Poet and the New Astronomy"

Pulter's poems entails a positive view of alchemical processes, atomistic matter theory, and, above all, a heliocentric understanding of the cosmos. She is comfortable with the vocabulary of alchemy: the processes of calcination and sublimation provide metaphors of transformation, and disintegration ("Perfection of Patience" and "The Circle"). Hers is a universe "stuft with Atomes" ("The Wish"). She frequently makes reference to "revolution", by which she means the cycles of natural processes, especially circular motion of the heavenly bodies. In addition, there is her close observation of the natural world, even in poems that rework mythological or literary nature-subjects, for example, "The Pismire" (ant), in which she recounts how sitting under a sycamore tree, she looked at the ground, "museing and looking on my Mother earth" and noticed an anthill. The poem has a moral purpose, as an "emblem of the World", but this is based on close observation of the ants, which "lugged up and down their Flatious issew / [...] some with glittering wings th[at] shone like tissew"¹⁶.

Sources

As I noted earlier, Hester Pulter's use of astronomy takes on added significance because it is a rare example of a woman responding to the new science of the seventeenth century. This in its turn raises questions about her sources. But at the present state of our knowledge both about her biography and of the relationship of women to early science, these questions cannot be answered with any plausibility. She herself mentions few sources, and those she does mention have no bearing on science¹⁷. The only text she names that has anything to do with astronomy is actually an almanach or prognostication: *Erra Pater*, a popular manual of astrology, which is based on the Ptolemaic system. (The reference to it is in "Emblemes", not the poems). It is natural to assume that her sources were books. It is not beyond the bounds of possibility that Hester Pulter may have had direct knowledge of Galileo's writings. There was, however, no English translation of *Sidereus nuncius* before the nineteenth century. But two Latin editions were published in England in 1653, and 1683, both printed with Gassendi's *Institutio astronomica*¹⁸. The English translations of the *Lettera* and *Dialogo* by Thomas Salusbury were published in 1661 – considerably later than her poem, "when I Lay

¹⁶ *Ibid.*, Item 36 (Verse), fols.53r-54r.

¹⁷ In her "Emblemes" she refers to Sir William Sanderson, *A Compleat History of the Loves and Reigns of Mary Queen of Scotland and of her son [...] James the Sixth*. London, 1656, repr. 1658, a book which was written against Sir Anthony Weldon's *The Court and Character of King James* and A. Wilson's *The History of Great Britain*. It provoked a response by Peter Heylyn's, *Observations upon some particular persons and passages in a book lately made publick, intituled...* London, 1656, which was also published in Heylyn's, *Examen historicum: or a discovery of the mistakes in some modern histories*. [i.e. Wm. Sanderson and Thomas Fuller], London, 1659.

¹⁸ Galileo Galilei, *Sidereus nuncius magna longeque admirabilia spectacula pendens suspiciendaque proponens unicuique praestim vero philosophis, atque astronomis*, in Gassendi, *Institutio astronomica juxta hypothesis tam veterum quam recentiorum*, London, J. Flesher, 1653. Reprinted, Cambridge, 1683.

Inn, with my Son John" which is dated 1648¹⁹. This means that she would have had to read Galileo in either Latin or Italian. It is by no means unlikely that she could have access to a copy of *Sidereus nuncius*, which circulated in England, where it was known to both specialist astronomers and educated laymen, such as Sir William Boswell and John Selden, whose library was well-supplied with scientific texts²⁰. However, we have no means of confirming whether she knew these languages or whether her family had likely scientific or Italian connections. Were it to be established that she did *indeed* read Galileo, this would have implications for our knowledge about women, science and education in early seventeenth-century England. But even if her sources turn out to be literary, her poems show a clear understanding of the theories involved. We should not, of course, forget that the *Starry Messenger* was specifically addressed to a non-specialist audience and that Galileo later defended his claims about the moons of Jupiter in a letter addressed to a woman, the Grand Duchess Cristina de' Medici (1613)²¹.

It is perfectly possible that Hester Pulter's sources were not theoretical at all, but that her knowledge of contemporary science was garnered from literary sources. An example of non-scientific writing is the "Digression of Ayre" in Robert Burton's *The Anatomy of Melancholy*, which rehearses the latest theories of the universe, in a confusing farrago of detail. Burton is, however, an unlikely source for Hester Pulter, since, in contrast to the over-supply of often conflicting data which fills the "Digression", she draws consistently on a single theory. Poetry was held to be an appropriate medium for philosophical subjects, including natural philosophy, and many poets incorporate motifs based on contemporary natural philosophy in their writings²². For example the description of the House of Astragon in *Gondibert* (1651) by the Royalist poet, William Davenant, has echoes of King Solomon's House in Bacon's *New Atlantis*. In the 1640s the most well-known example of poetry which incorporates astronomical theory would have been

¹⁹ Thomas Salusbury's English translation of the *Dialogo* (*The System of the World in Four Dialogues*) was published in his *Mathematical Collections and Translations*, London 1661, republished in 1665 and 1730, 1734. This collection also included his translation of Galileo's *Lettera a Madama Cristina di Lorena, Granduchessa di Toscana* (1613) which was published with the title *The Ancient and Modern Doctrine of the Holy Fathers, and Judicious Divines, Concerning the Rash Citation of the Testimony of Sacred Scripture, in Conclusions merely Natural*. Galileo's English translator, Thomas Salusbury (1620/30-c.1660), was a Welshman, about whom little is known. Educated at Trinity College Dublin, he travelled in Italy and France between 1645 and 1654. He had links to the royal court in exile and held strong anti-Parliamentarian views. The odour of plagiarism prevented him being elected to the Royal Society. Unfortunately, a good part of his writings were lost in the fire of London. For further information see Nick Wilding, "The return of Thomas Salusbury's *Life of Galileo* (1664)" in *The British Journal for the History of Science*, 41, 2008, p. 241-265.

²⁰ See Feingold, *op. cit.*

²¹ Galileo's *Letter to the Grand Duchess Cristina de' Medici* also attempted to reconcile the Copernican system with biblical teachings.

²² For a survey of early modern scientific poetry, see Robert M. Schuler, *Magical and Scientific Poems to 1700. An Annotated Bibliography*, New York and London, Garland, 1979.

"Hester Pulter: A Woman Poet and the New Astronomy"

the *Philosophical Poems* (1647) of the Cambridge Platonist, Henry More (1614-1687)²³. More's *Philosophical Poems* are largely long allegorical poems on metaphysical subjects such as the immortality of the soul, mortalism, the infinity of the universe²⁴. First published in the early 1640s, they set out his Platonist philosophy for the first time. We tend, nowadays, to regard poetic Platonism chiefly in spiritual terms, especially for affording a model of spiritual contemplation and expression to poets like Thomas Traherne, Henry Vaughan and Andrew Marvell²⁵. The spirituality of Hester Pulter's poems is certainly infused with a similar Platonist understanding of the relationship of the soul to God. Her frequent use of the idea of the return of the soul to its origins, her use of light as a metaphor for the soul and all things spiritual, her joy in the natural world are all features of her writing that she shares with the English Platonic tradition. Contrary to many modern assumptions, this Platonism is not at odds with science or natural philosophy. In fact, one of the attractions of Platonism for the Cambridge Platonists, of whom More was a leading figure, was that Platonism offered a natural philosophy which they regarded as consistent with Christian belief, at a time when the received (Aristotelian) framework of natural philosophy was disintegrating. More's poems were important for presenting his philosophical theories to a wider public. They also render in poetry the new science and philosophy of the day, which he regarded as compatible with Platonism: namely Galilean cosmology and Cartesian natural philosophy. In "*Psychathanasia* or the Immortality of the Soul", More uses the Galilean comparison of the terrestrial moon to another world, and then More gives an account of the moons of Jupiter, Saturn and the Earth:

About the great the lesser lamps do dance,
The Medicean foure reel about Jove'
Two round old Saturn without nominance,
Luna about the earth doth nimble more:
Then all as it doth seemly well behove,
About the bigg'st of all great Phoebus hight
With joy and jollitie needs round must rove [...]. ("*Psychathanasia*", Book III,
Canto 3, stanzas 62 & 65)

²³ More was a contemporary of Milton, who was educated at the same Cambridge College. He was also an admirer of Edmund Spenser, whose style he imitated in his own poems. Nevertheless, More has been almost completely ignored in modern literary studies. He has fared somewhat better in the history of science and philosophy. See *Henry More (1614-1687): Tercentenary Studies*, Sarah Hutton (ed.), Dordrecht, Kluwer Academic Publishers, 1990 and Robert Crocker, *Henry More, 1614-1687. The Biography of a Cambridge Platonist*, Dordrecht, Kluwer Academic Publishers, 2005.

²⁴ More's "Philosophical Poems" reprints his "Psychodia Platonica, A Platonicall song of the Soul" (first published in 1642) and "Democritus Platonissans" (first published in 1646). The allegorical personages he invented for these poems were later, drawn on by William Blake.

²⁵ For Platonism in English literature see *Platonism and the English Imagination*, Anna Baldwin and Sarah Hutton (eds), Cambridge, CUP, 1994.

Democritus Platonissans also describes the cosmos in Galileian terms, including an account of the moons of the Earth, Jupiter and Saturn:

[...] each greater Planet th'attendance finds
Of lesser; Our *Earths* hand maid is the Moon,
Which to her darkened side right duly shines,
And *Jove* hath foure, as hath been said aboven,
And *Saturn* more then foure if the plain truth were known. ("*Democritus Platonissans* or the Infinitie of Worlds" stanza 30)

More's poems functioned as a "popular" source of philosophical and scientific knowledge in the mid-seventeenth century. And there is good evidence that they were read by women as well as men. (Indeed the intellectual tradition that More represented was hospitable to female participation: the most famous example being Anne Conway, whom More took on as a student)²⁶. However, in the absence of further confirmation, we cannot assume Hester Pulter read More. The two poets certainly share a Platonic imagination which embraces both the workings of the spirit and the works of nature. And they both combine this Platonic outlook with the Galilean cosmological theory. But Hester Pulter does not imitate More in poetic style. Nor is there any evidence that she took an interest in Cartesian philosophy. Unlike More, she does not seem to have regarded the universe as infinite – though she does tentatively speculate on this in "A solitary complainte", where she mentions the possibility of many suns (and, by implication, a plurality of worlds).

But whether this sun his Influence doth owe
Unto som other sun, non sure doth know.
But every Orb his Fellow doth illustrate
For non ye ends of Nature dares to frustrate
Thus all those Suns and Stars for ever more
About the Fount of Life, & Light & Love. ("A solitary complainte", 75r-v)²⁷

Suggestive though the parallels between More and Pulter may be, the similarities could be explained by their having a common source. The case for More having influenced Pulter is, therefore, inconclusive.

Without further evidence of Pulter's reading or knowledge of languages, it is impossible to decide the question of her sources, or the full significance of her evident knowledge of contemporary scientific theories. We can, however, be sure, that Hester Pulter's poems are not just a fine example of early modern women's

²⁶ Sarah Hutton, *Anne Conway. A Woman Philosopher*, Cambridge, CUP 2004.

²⁷ Brotherton MS, Item, fols 75r-v. In *Democritus platonissans*, More criticised Descartes for not accepting the logic of his own arguments and positing the infinity of the universe. More's conception of space as infinite anticipates Newton. See Alexandre Koyré, *From the Closed World to the Infinite Universe*, Baltimore, Johns Hopkins University Press, 1957, and Rupert Hall, *Henry More. Magic Religion and Experiment*, Cambridge, Cambridge University Press, 1990.

"Hester Pulter: A Woman Poet and the New Astronomy"

writing. But they are further evidence of the early diffusion of the new astronomy in England, of women's knowledge of scientific ideas in the seventeenth century, and of the imaginative appeal of the new science in this period.