Cambridge University Press 978-1-108-71628-4 — The Moon in the Greek and Roman Imagination Karen ní Mheallaigh Excerpt <u>More Information</u>

## Introduction To the Moon! Journey into the Ancient Scientific Imagination

In the Apollo era, photographic images revealed the lunar landscape to us for the first time. Overnight, our mysterious opaline luminary – the fanciful home of insectoid Selenites, bat-men or benevolent lunar spirits – became a rock in space, a forlorn and uninhabited outpost of our world.<sup>1</sup> But the ancient Greeks and Roman did not know this yet: they did not know what the Moon was made of (fire? ice? cloud?), or what caused it to change its shape each month, and they were fascinated by it – 'haunted by its thereness', to paraphrase John Updike, in a poem about the mysterious lunar presence.<sup>2</sup>

This book explores particularly the ancient Greeks' probing and imaginative exploitation of the Moon's 'thereness' in their literature, as well as the ideas about the Moon on which that literature was predicated. It is not a history of the Moon as such, for excellent studies of that nature already exist, which recount precisely what beliefs the ancient Greeks and Romans held about the Moon.<sup>3</sup> Instead, I explore the Moon's interactions with Greek literary and intellectual culture. The Moon that emerges from these pages is a distinctive conceptual space, characterized above all by liminality or *in-betweenness*. Ultimately, it connects the modern world with antiquity.

From very ancient times, the Moon was understood to be enmeshed with natural and cultural phenomena of our world (e.g. dew, birth, menstruation, tides, the calendar), but over time it developed ontological,

<sup>&</sup>lt;sup>1</sup> The insectoid Selenites came from the cinematic imagination of Georges Méliès, *Le voyage dans la lune* (1902); the lunar bat-men from Richard Adams Locke's *Moon Hoax* (1859), while Cyrano de Bergerac envisaged the Moon inhabited by wise spirits in *Les états et empires de la lune* (1657). For a comprehensive history of accounts about lunar inhabitants, see Gómez 2010. I discuss ancient ideas about lunar life in Chapter 3.

<sup>&</sup>lt;sup>2</sup> John Updike, 'Half moon, small cloud', ll. 13–6, from Updike (2009): 'No star but in the zodiac of stars,/ a stranger there, too big, it begs for love/ (the man in it) and yet is diaphanous,/ its thereness as mysterious as ours.'

<sup>&</sup>lt;sup>3</sup> In particular, Préaux (1973) and Lunais (1979). Roscher (1890) is dated but still useful.

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epistemological and topographical qualities all of its own. The first three chapters of the book trace the Moon's early associations and its gradual fleshing out into a parallel world, fully realized and populated in the ancient imagination. Eventually – as we shall see in Chapter 6 – it would become a platform from which to contemplate the Earth and, at that point, a sensory impression of our world was constructed from the Moon. One way or another, the Moon is always entangled with the Earth: a separate, but related world distinct and yet recognizable, proximate yet detached.

In the era before the telescope the Moon was, by necessity, constructed entirely out of the ancient mythical, philosophical, scientific and literary imagination. As these shifted, so too did ideas about the Moon. But more uncannily, as ancient Greek thinkers built and rebuilt the Moon, it exerted its influence back on them and began to shape their thought-world in turn. It is this dialogic relationship – a noetic version of the ubiquitous Earth– Moon entanglement – that I find fascinating.

I will begin in Chapter I where Greek literature begins - with the poetry of Homer and Hesiod and with the choral poetry of the Archaic Sparta - traditions which mark the Moon's chronometric presence very early in the Greek imagination, and which draw it into the world of ritual, song and dance, where new associations can crystallize around it. As a result, a rich tradition of ritual, folk-wisdom, song and dance was already woven around the Moon when the poet Sappho emerged in the seventh century BCE. The hinterland of choral and agricultural traditions represented by Homer, Hesiod and Alcman was undoubtedly a formative influence on Sappho, but this female poet from the island of Lesbos may, with some justification, be hailed as the first poet of the Moon, for it is clear – even through the fragmentary remains of her songs – that the Moon was a distinctive symbol in her work, and that she evolved lunar mythology (especially the myth of Selene and Endymion) in influential new directions. Now the semiotics of the Moon quickened and took on a new complexity, linked with themes of female desire, the reciprocities of the gaze, and to proto-philosophical ideas that associated the Moon with moisture, liquidity and the feminine.

Chapter 2 explores how the Moon became the object of the earliest scientific query in the sixth and fifth centuries BCE. Thinkers in the Ionian world were puzzled by the strange mutations that made it unique among the celestial bodies – 'no star but in the zodiac of stars' (to quote John Updike's poem). These early theorists drew on their technological and artefactual imaginary to conceptualize the Moon as a fiery ring or a

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great celestial bowl or a glowing cloud, but in the fifth century they hit on the idea that it is in fact an Earth-like, rocky world rather like our own. The story of how the Moon first became a world is germane to (all) later imaginative traditions about lunar journeys, lunar inhabitants and lunar visitors to our world. At the same time, questions about the Moon's nature were entangled with deeper, broader questions about the nature of change and sense-perception. The Moon also became entwined with more metaphysical thrusts of thought, in which it served as the realm of incorporeal entities such as the soul and semi-divine beings called *daemones*. Chapter 2 traces the Moon's shift from being the object of purely physical scrutiny to becoming involved with newly emerging doubts about the nature of reality and knowledge itself.

In Chapters 3 and 4, the focus turns towards the implications of the theory that the Moon was an Earth-like space, and a parallel world in the sky. Although the Moon's nature was never unequivocally fixed in antiquity, the Earthy Moon Theory (EMT) of the fifth century BCE kickstarted speculation on the possibility of lunar life, and thinkers in Plutarch's great lunar dialogue, On the face of the Moon, pressed complex questions about the Moon's purpose in the cosmos in both physical and metaphysical terms. Before the encroachments of telescopic lenses, the Moon was a place of both unverifiable reality and unfalsifiable possibility. When eventually writers took their readers on imaginative journeys there, as we will see in Chapters 5 and 6, it became an alternative world, an eternal other place suspended between truth and lies. From the lunar platform, the imaginary eye could survey with supreme detachment our world and humankind in its entirety, compressed into one convenient eyeshot. On the other hand, when viewed from Earth below, the Moon appeared to reflect the whole world back to us in a mirrory map. The Moon became, therefore, the ultimate *mise en abyme*: a fantasy archival space, which offered sensory command of the whole world and a catoptric précis of all our knowledge and existence. It became symbolic both of the limits of human knowledge and of the imperializing control of the world of knowledge.<sup>4</sup> It became, too, a test-site for the philosophical eye, trained to zoom in and out in fantasies of telescopy and microscopy. And all the while, the old traditions of the Moon-goddess, ritual and time that were associated with the Moon continued to flourish. It was never the case that one way of imagining the Moon replaced another; instead, as traditions grew and

<sup>4</sup> See König and Whitmarsh (2007, 14) and cf. pp. 265–6 below.

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became entangled with one another, the Moon became an ever more richly complex presence in the ancient imagination.

Some candour about the scope of the project is in order at this point. I have focussed mainly on what the Greeks and Romans wrote about the Moon in the literary record. To this heterogeneous body of poetry, philosophical literature, satire, science and fiction I attach the label 'selenography' ('writing about the Moon'), which I have adapted from Johannes Hevelius' landmark work of 1647.<sup>5</sup> The analysis in the book sweeps from the Archaic to the Imperial periods, with occasional forays into the lunar imaginary of the Byzantine Greeks (Demetrius Triclinius) and early modern writers (e.g. Cyrano de Bergerac, Kepler). Without doubt, however, the *floruit* of ancient selenography coincides with the Roman Empire, in the works of Plutarch and Lucian in the first and second centuries CE. These are the most substantial and richly detailed selenographical works from antiquity and, in Chapter 5, I shall argue that their precise congruence with the height of Roman expansionism is pointedly meaningful. Despite the book's broad chronological sweep, however, its focus is still, inevitably, selective: I do not, for example, explore visual representations of the Moon-goddess, except sporadically and in passing, and the focus on Graeco-Roman material excludes other important cultures of the ancient Mediterranean, such as the Etruscans (with Tivr and Catha as potential candidates for lunar deities) and Phoenicians (Astarte).<sup>6</sup> The reader will, however, be compensated somewhat, I hope, by the fact that this is the first study to bring together and analyse this diverse set of texts about the Moon from the Graeco-Roman world itself, and that this is the first sustained exploration of the Moon's influence on the Graeco-Roman literary and scientific imagination. Moreover, some of the material examined here (e.g. Plutarch's De facie, Varro's *Endymiones*, the recondite lunar mythography of Hellenistic poets) may be unfamiliar even to the seasoned Classicist.

Although the book has been written primarily with the Classical scholar in mind, I hope that the scholar of early modern thought will find material of interest here too, as well as the reader who is more generally intrigued by ideas about the Moon, crossovers between scientific and literary thought, or the pre-history of science fiction. The design is such that each chapter

<sup>&</sup>lt;sup>5</sup> Hevelius used the term in a different sense: as the equivalent of 'geography,' to denote his scientific study of the Moon, along with his visual charting and naming of its physical features; see Hevelius (1647, 222–223).

<sup>&</sup>lt;sup>6</sup> For exploration of possible images of (and names for) the lunar deity in Etruscan art, see Stibbe-Twiest (1977) and de Grummond (2008) with further bibliography.

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will contribute, gradually, its own motif so that, by the end, the reader will find him/herself immersed in the symphony of ancient lunar ideas. For organization purposes, I employ rather artificial distinctions between different ways of conceptualizing the Moon ('mythic', 'scientific' and so on), but I will constantly emphasize patterns of cross-fertilization among these categories, for one of my central arguments is that it is in the nature of the Moon to collapse boundaries. That, combined with its strange remoteness (so near, yet so far), made it a unique laboratory, out of which emerged thought-experiments that would powerfully shape the history of literature and ideas. Ultimately, the Moon that emerges from this book is an extraordinary imaginary space: the product and emblem of the ancient scientific imagination itself.

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#### CHAPTER I

## The Moon in Ritual, Myth and Magic

#### The Moon and Time, Ritual, Religion

Strands of ancient ritual tradition, scientific inquiry and imaginative fancy cluster thickly around the Moon. Its most ancient, probably prehistoric, role was as a celestial body whose phases measured out the months for the Greeks; indeed, Plato identified the Moon, Sun and planets with the creation of time itself, and attributed to the Moon, with its monthly cycle of phases, a formative epistemological effect by teaching us how to count.<sup>1</sup>

The earliest literary references to the Moon, in the poems of Homer and Hesiod in the eight and seventh centuries BCE, emphasize its connection with the agricultural seasons. In the *Iliad*, when the smith-god Hephaestus forges Achilles' new shield and decorates it with a panorama of the cosmos, he carves on it the Sun, Moon and stars (*Il*.18.483–489):

Έν μὲν γαῖαν ἔτευξ', ἐν δ' οὐρανόν, ἐν δὲ θάλασσαν, ἡέλιόν τ' ἀκάμαντα σελήνην τε πλήθουσαν, ἐν δὲ τὰ τείρεα πάντα, τά τ' οὐρανὸς ἐστεφάνωται, Πληϊάδας θ' Υάδας τε τό τε σθένος Ώρίωνος Ἄρκτόν θ', ἣν καὶ Ἄμαξαν ἐπίκλησιν καλέουσιν, ἢ τ' αὐτοῦ στρέφεται καί τ' Ἐρίωνα δοκεύει, οἶη δ' ἄμμορός ἐστι λοετρῶν ἘΛκεανοῖο.

On it he wrought Earth, on it heaven, on it sea; tireless Sun and Moon in full swell; on it all the constellations with which heaven is encircled: Pleiades, Hyades and mighty Orion, and The Bear, which they also call The Wain, which turns on its own axis and watches Orion, and is the only star not to share in the baths of Ocean.

<sup>1</sup> Plato, *Tim.* 38b and [ps. Plato] *Epinomis* 978d–979b.

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This celestial imagery is unique within the *Iliad*, for it is the only mention of *constellations* in the poem. Constellations - including the very ones represented here – are a regular feature of the Hesiodic sky as we shall see, but the poet of the Iliad and Odyssey generally favours lone stars.<sup>2</sup> Moreover, the poet does not draw attention to the Moon and stars' light on the shield, as is his custom everywhere else, but to their cyclical movement instead. This is expressed through the Bear constellation's 'turning' (strephetai) on its own axis, and implied by the way in which the sky is 'encircled' (estephanotai) by stars. The Moon is drawn into the kinetic fantasy: the participle *plēthousa* in l. 484, meaning 'being/ becoming full,' emphasizes its dynamic nature in contrast with the Sun's stative quality in the same verse (akamas, 'tireless'). This too is striking, given that all other references to the Moon in the Homeric poems emphasize, rather, its radiance, a quality that could easily have been evoked here too by reference to the shield's metallic gleam.<sup>3</sup> The Moon and stars, however, play a distinctive role on the shield as a chronometric engine generating an aeonic sense of cyclical time - the sort of deep time that the gods experience, in poignant contrast with mortals like Achilles, who will carry the shield to his death.<sup>4</sup>

Quite possibly, the poet envisaged that these images *literally* moved on the shield's surface, animated by Hephaestus' divine craftsmanship. That is certainly the belief attested by the premodern exegeses of the poem,<sup>5</sup> and it is reinforced by the Tabulae Iliacae, extraordinary pictorializations of the Homeric poem in a series of miniature marble reliefs that date mostly between the late first century BCE and the early first century CE. Achilles' shield is represented on the obverse of Tabula 4N. In his brilliant analysis, Michael Squire has shown that, in the effort to read the tiny text that is

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<sup>&</sup>lt;sup>2</sup> Lorimer (1951). Whereas Hesiod uses the stars to stake out what is habitual and cyclical, Homeric stars tend to mark fleeting, brilliant moments in the life of the individual: the radiance of Achilles' shield is like that of the Moon, while his helmet shines like a star (11. 19. 374 and 381-383); Hector, as he rages on the battle-field, is like a star that dips in and out of the clouds (Il. 11.61–65), and when Achilles runs over the plain in his new armour, he glitters like Sirius (Il. 22.25-32); Achilles' spear, brandished in Hector's hands, is said to gleam like the evening star (Il. 22. 317-321), while the comparison of his infant son Astyanax with a star (Il. 6.401) hints at the glorious warrior status which the boy - tragically - will never achieve. The only other allusion to constellations in the Homeric poems is at *Odyssey* 5.270–277, which is identical to *Il.* 18.487–489. In this case, the poet describes Odysseus' navigation by the stars after leaving Ogygia. This reinforces the Hesiodic connotations of constellations, since it is a theme in Works and Days (Op. 618-623; 663-665).

<sup>&</sup>lt;sup>3</sup> There are seven lunar references in the Homeric epics (including this one): *Il.* 8.555; 17.367; 18.484; 19.374 and Od. 4.45; 7.84; 9.144; 24.148.

<sup>&</sup>lt;sup>4</sup> On the interplay of divine and mortal time in Archaic and Classical Greek thought generally, see Vidal-Naquet (1986, 39-60); Hubbard (1992, 34-35) discusses the interplay of the two on the shield.

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inscribed around the shield's rim, the viewer must turn the object in his or her hands, thereby initiating the self-same circular rotation of the Sun and Moon that is envisaged in the Homeric poem: 'the very act of reading the anticlockwise inscription restores the clockwise spatial circuit of Helios and Selene. Turning the object in our hands, we literally spin the "tireless Sun" (ἤέλιών τ' ἀκάμαντα) and "Moon at her full" (σελήνην τε πλήθουσαν, v.484) in their endless temporal orbits.'<sup>6</sup> In its attempt to recreate the motion of the celestial bodies, either imaginatively (in the poem's description) or literally (in the case of the interactive *Tabula*), the shield must be considered the ancestor of all later *planetaria*.<sup>7</sup>

This dynamic night sky evokes the round of farming and civic life celebrated elsewhere on the shield with its harvest, vintage and weddings, a way of life that is only fleetingly glimpsed in the *Iliad*'s reduced and martial world, but absolutely characteristic of Hesiod's *Works and Days*.<sup>8</sup> In that poem, Hesiod attests to farmers' careful observation of prominent constellations, including the very ones Hephaestus depicts on the shield, whose rising and setting marked key phases of the year such as the onset of spring, the time for ploughing, and the limits of the sailing season.<sup>9</sup> In the final section of his poem, known as 'the days' (ll. 765–828), the poet dispenses advice about which days of the month are appropriate for activities in daily life, and it is here that the activities of the Moon come under sharper scrutiny:

όγδοάτη δ' ἐνάτη τε δύω γε μὲν ἤματα μηνὸς ἔξοχ' ἀεξομένοιο βροτήσια ἔργα πένεσθαι· ἑνδεκάτη δὲ δυωδεκάτη τ' ἄμφω γε μὲν ἐσθλαὶ

<sup>&</sup>lt;sup>6</sup> Squire (2013, 178–179). On the pictorialization of the Iliadic shield specifically within the *Tabulae*, see Squire 2013, esp. 170–179. On the interplay between verbal and visual more generally in the *Tabulae*, see Squire 2011.

<sup>&</sup>lt;sup>7</sup> Some ancient readers believed that the shield was indeed a 'representation of the cosmos' (κόσμου μίμημα, schol. ad Arat. Phaen. 26), construing the circular motifs in the shield-description as evidence of Homer's intuition about the cosmos' spherical form; cf. Heraclitus, Allegories 48.7 (on Il. 18.485), who remarks that 'Homer has given us a spherical cosmos'. On this line of ancient criticism, see Porter (1992, 91–94) esp. n.70; Burtin (2000, 19–20). On cosmological interpretations of the shield in antiquity more generally, see Hardie (1985).

<sup>&</sup>lt;sup>8</sup> See Hubbard (1992, 28-29) on the evocation of contemporary poetic discourses on the shield, including the tradition of wisdom-poetry to which Hesiod's *Works and Days* belongs.

<sup>&</sup>lt;sup>9</sup> See e.g. Il. 383–387 (the rising and setting of the Pleiades); Il. 417–419 (Sirius); Il. 564–567 (Arcturus); Il. 609–617 (Orion, Sirius, Pleiades, Hyades) etc. Phillips (1980) argues that Hephaestus in the *Iliad* depicts the heliacal risings and cosmical settings of the Pleiades, Hyades and Orion, indicating the period from May to November (approx.) when the major agricultural activities of ploughing, sowing and reaping that are depicted elsewhere on the shield would have taken place; see also Hannah (1994), who offers a refinement of Phillips' argument. Barnes (2014) has interpreted the animal groupings on the Halai *skyphos*, a real archaic artefact (as opposed to the imaginary shield), as astronomical signs with a similar seasonal significance.

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ήμὲν ὄις πείκειν ήδ' εὔφρονα καρπὸν ἀμᾶσθαι· ή δὲ δυωδεκάτη τῆς ἑνδεκάτης μέγ' ἀμείνων·... μηνὸς δ' ἱσταμένου τρεισκαιδεκάτην ἀλέασθαι σπέρματος ἄρξασθαι· φυτὰ δ' ἐνθρέψασθαι ἀρίστη.

The eighth and ninth days of the waxing month are two days above all for working on mortal tasks. Both the eleventh and twelfth are good for shearing sheep and harvesting glad produce – but the twelfth is far better than the eleventh. ... Avoid the thirteenth after the Moon gets started for starting sowing seed, but it is excellent for training plants...<sup>10</sup>

As the phrase 'the waxing month' (μηνός ἀεξομένοιο, l. 773) suggests, Greek months were lunar. This meant that the days of the month were numbered in accordance with the lunar phases, so that the month typically began with the 'new Moon' ( $vou\mu\eta vi\alpha$ ) and ended, on either the 29th or 30th day thereafter, on the ominous transitional day known as the 'old and new Moon' (ἕνη καὶ νέα) when only a meagre crescent remained illumined and the rest of the lunar disc shone dimly in the earthshine, a phase known colloquially in English as 'the new Moon in the old Moon's arms'.<sup>11</sup> Local conventions could divide the month in different ways, but the 'waxing month' (µŋvòs άεξομένοιο) generally denoted the first ten days or so of the month; the 'established month' (iotaµévou µŋvòs) denoted the second decad, which contained the full Moon always around the 15th day, known as 'split-month' (διχομηνία); and the 'waning month' (φθίνοντος μηνός), denoted the third decad thereafter. To judge from Hesiod's recommendations in these verses, the first half of the month, when the Moon was waxing to fullness, was considered auspicious for life-giving activities such as sowing seeds, while the waning half was considered inauspicious. This indicates a very old, underlying belief in a sympathetic principle between the Moon and Earth.<sup>12</sup>

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<sup>&</sup>lt;sup>10</sup> *Op.* 772–781. The suspicion that 'the days' were a later accretion to Hesiod's poem is a modern one; its authorship was not doubted in antiquity: see West (1978, 346–347).

<sup>&</sup>lt;sup>11</sup> Since the Moon's synodic cycle does not correspond to a round number of days (it takes approximately 29.5 days to complete its revolution around the Earth), Greek calendars, which reckoned on months of either twenty-nine or thirty days, repeatedly fell out of step with the Moon's phases and required intercalation in order to correct discrepancies. (For further elucidation, see Hannah (2005); Samuel (1972, 14–15 and 59–61); West (1978, 349–351 and 376–378)). Today's Western civil calendar is a *tropical solar calendar*, an innovation that can be traced back to Julius Caesar's calendar reforms in 45 BCE (on which, see Feeney (2007)). In this system there is no longer any correlation between the days of the month and the Moon's phases.

<sup>&</sup>lt;sup>12</sup> See West (1978, 347–348): '... it is noticeable that the good days are mostly concentrated in the first half of the month, when the waxing of the moon proclaims growth. The 9th is good for planting, the 16th (waning moon) is bad... To this extent we can discern a principle ...' Bremer

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The practice of weather prognostication on the basis of the Moon's appearance at different phases is widely attested in ancient literature.<sup>13</sup> Over time, these theories gathered complexity. Later agricultural writers took cognizance not only of the phase of the Moon, as Hesiod and others had done, but also of its position relative to the horizon for determining important factors such as plant productivity.<sup>14</sup> Beyond the literary record, two of the surviving cycle-tracking charts, known as *parapegmata*, trace the phases of the Moon along with almanac-style weather prediction, while many others track the days of the Moon for simpler calendrical purposes.<sup>15</sup> It was important to know the Moon's phase for more specialist purposes as well: the Greek medico-magical text Kyranides repeatedly stresses the necessity of harvesting powerful herbs and plants, or performing spells, at particular phases.<sup>16</sup>

The Moon's chronometric role is not forgotten, even as it is imagined anthropomorphically in the form of the goddess Selene. The word selēnē, which means 'Moon' in Greek, was believed in antiquity to have derived from the word selas, meaning 'brightness'.<sup>17</sup> For obvious reasons, this effulgence was the goddess' defining feature. It floods the short Homeric

- <sup>13</sup> For examples, see Aratus, *Phaen.* 778–818; Virgil, *Georg.* 1. 424–437; Pliny, *NH* 18. 347–350. <sup>14</sup> See, for example, the work of Diophanes, a Greek agricultural writer of the first century BCE, whose work survives in the Byzantine Geoponica (Geoponica 1.6; cf. 1.7 and 5.46 for the related instructions of the pseudepigraphical Zoroaster, with Beck (1991, 530-531)). On the Moon in Roman agriculture, see Lehoux (2007, 42-46); Tavenner (1918).
- <sup>15</sup> Only two surviving *parapēgmata* both Latin combine astrometeorology, which was a typical concern of Greek parapēgmata, with tracking the days of the Moon: the Puteoli parapēgma (Lehoux 2006 and 2007, 158-160) and (briefly) in Pliny's literary parapegma in NH 18.200 (Lehoux 2007, 161). Our evidence suggests that the phases of the Moon did not play a prominent role in Greek parapēgmata, probably because Greek months were already synchronized with the lunar cycle. In contrast, months in the Roman Republican and Julian calendars were not lunar, which meant that devices were required in order to track the Moon's phases. The days of the Moon therefore feature commonly in Roman astrological and astronomical parapegmata, such as the magnificent Thermae Traiani parapègma, which has been dated (speculatively) to the fourth century CE (Lehoux 2007, 168–190) and the Latium *parapēgma* (Lehoux 2007, 32–35 and 171–172). Tracking of the phases was also ascribed to the astronomical *ephēmerides* (Lehoux 2007, 209–211).
- <sup>16</sup> See, for example: *Kyranides* 1.7 (bird heart to be consumed during waxing of the Moon); *Kyr.* 1.10 (bird-heart to be attached as amulet at waning Moon as cure for fevers); Kyr. 1.16 (ring and ointment to be prepared at waning of Moon); Kyr. 1.24 (preparation using scorpion to be prepared at waning of Moon); Kyr. 2.47 (spider-eggs to be collected at the waning of moon as a cure for fevers); Kyr. 2.5 (a cure for gout using live frog is to be prepared when neither the Sun nor Moon is visible). The Moon's zodiacal position could also be important, e.g. Kyr. 2.40 (Moon's zodiacal position is crucial for performance of sacrifice to help in epilepsy); cf. ps.-Thessalus On the virtues of *plants* 1. Prol. <sup>17</sup> Plato, *Cratylus* 409a–c.

<sup>(1987, 424)</sup> identifies the underlying as 'sympathy between heaven and earth'. In the later Roman agricultural tradition, this sympathy is usually thought to be rooted in Stoic philosophy; see Sextus Empiricus Adv. Math. 9.79, with Reinhardt (1926, 125-128).