DRAWING DOWN THE MOON & AGLAONICÊ OF THESSALY

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Manilius begins the *Astronomica* with a beautiful image: "through the magic of song" he will "draw down the knowledge of the stars." The result of this endeavor is of course the *Astronomica*, the earliest (mostly) complete account of the Hellenistic astrological tradition that we posses. In this essay I will look more closely at the language Manilius uses in the opening lines of his poem, showing that his imagery is a direct allusion to a mysterious practice of drawing down the moon. I will begin by contextualizing Manilius' poetic imagery within a broad survey of the term in Greek and Latin classical literature, in order to develop a better sense of the astral magic act described by drawing down the moon. In the second part of this essay I will explore two related questions. Do these classical references to drawing down the moon provide evidence of astrological practitioners in Greece, even before the development of Hellenistic astrology? How might this enrich our understanding of the early development of the Hellenistic tradition?

To answer these questions, it is helpful to remember Manilius' own position within the development of Hellenistic astrology. Manilius wrote the *Astronomica* sometime around 14 AD, about 150 years after the foundational texts of Nechepso and Petosiris were written.¹ While we have references to other earlier astrologers, such as Teucer of Babylon and Thrasyllus of Mendes, Manilius' *Astronomica* is the earliest intact Hellenistic astrological manual that we possess – at least a century earlier than texts by Dorotheus of Sidon, Ptolemy, and Vettius Valens. Aside from its date, the *Astronomica* is also distinctive for its style. It is the only existing astrological text written in Latin hexameter, even expressing the concept of *pi* in verse. Strange in many ways, despite its idiosyncrasies, or even because of them, the *Astronomica* provides us a rare view into the early Hellenistic astrological tradition. I would therefore argue that it is uniquely suited to an investigation of the early Hellenistic tradition, and to uncovering otherwise forgotten traces of its development.

PART 1: DRAWING DOWN THE MOON

Manilius begins the Astronomica with a poetic incantation:

By the magic of song to draw down from heaven god-given skills and fate's confidants, the stars, which by the operation of divine reason diversify the chequered fortunes of mankind; and to be the first to stir with these new strains the nodding leaf-capped woods of Helicon, as I bring novel offerings untold by any before me, this is my aim (1.1-5).²

In these opening lines, Manilius prepares his audience for the poetic experience they are about to embark on. He promises it is like nothing they have ever

¹ For more on the development of Hellenistic astrology cf. Chris Brennen, *Hellenistic Astrology: The Study of Fate and Fortune* (Denver: Amor Fati Publications, 2017) and Demetra George, *Ancient Astrology: In Theory and Practice*, Vol. 1 (Auckland, New Zealand: Rubedo Press, 2019). ² Throughout this essay I guote from Gould's translation of the *Astronomica*.

experienced before. Both in form and content it is something entirely new – an epic poem about the mysterious science of astrology. In this proem Manilius also introduces himself; he is the poetic conduit between his audience and the stars; he will draw the secrets of the cosmos down to earth (*deducere mundo*), through the magic of song (*carmine divinas artes*) making astrological knowledge manifest in the minds of his audience and explaining how their fate is determined by the movement of the stars.

Manilius also implies that as both a poet and an astrologer, he is uniquely suited for this task of revealing divine knowledge to mortals. In fact, the start of Manilius' poem is initiated by an act of astral magic - and by extension Manilius suggests that he is an initiate in this art. His description of drawing down the stars (*deducere mundo*) suggests a connection with the famous astral magic practice of drawing down the moon (L. *lunam deducere*, Gr. *kathairein ten selenen*), and his audience would have clearly connected Manilius promise to draw down the stars with the practice of drawing down the moon.

Manilius continues his description of this ritual: "Two alters with flame kindled upon them shine before me; at two shrines I make my prayer, beset with a twofold passion, for my song and for its theme," (1.20-23). Through his poetics, Manilius carves out a sacred space at the beginning of the *Astronomica*. He performs a poetic ritual to help him accomplish his goal. He prays for the success of his novel endeavor and invokes the inspiration of the gods, to help him find the right words to communicate the secret laws of the stars through astrological poetry. And most dramatically, he undertakes what was commonly considered an act of astrological magic - drawing down the stars. In fact, through the course of these introductory lines, the poem itself becomes the ritual that it describes, blurring the boundary between saying and doing; Manilus' poem (*carmen*) doubles as a spell (also *carmen*), and every line of the astrological poem becomes an act of drawing down the stars.

In order to gain a better sense of what Manilius intended to communicate in the poem's introduction, I would like to contextualize his language with other references to drawing down the moon in classical literature. Manilius makes it very clear that his intention in the *Astronomica* is to transmit the science of astrology to his audience, while communicating through the style and conventions of epic poetry. Throughout the poem Manilius also demonstrates his vast knowledge of Greco-Roman literature, suggesting that the *Astronomica* should be understood as a part of this long tradition.

For Manilius and his Roman contemporaries, "drawing down the moon" would have been a familiar concept, alluding to a form of astrological magic or sorcery, where planets are drawn down to earth through song or spell, in an attempt to harness the planet's power for the benefit of the practitioner. For example, in Virgil's *Eclogue 8*, written around 40 BCE, he describes a love spell ritual:

Bring out water, and wind soft wool round this altar; and burn rich herbs and male frankincense, that I may try with magic rites to turn to fire my lover's coldness of mood. Naught is lacking here save songs. Songs can even draw the moon down from heaven, (8.64-69).³

³ Virgil, *Eclogues. Georgics. Aeneid: Books 1-6,* trans. by H. Rushton Fairclough, revised by G. P. Goold, Loeb Classical Library 63 (Cambridge, MA: Harvard University Press, 1916) 79.

The similarity in imagery between this passage and Manilius' introduction is remarkable. Both poems describe burning altars, magic rites, and the power of song to draw the stars down from heaven. This would suggest that either drawing down the moon involved a consistent set of ritual elements, or that Manilius was intentionally referencing *Eclogue 8*, or both. In fact, Virgil was himself referencing a work of the 3rd century poet Theocritus, who in *Idyll 2* describes a love spell incantation sung by Simaetha, as she spins her magic rhombus to draw down the moon and Hecate.

However, references to "drawing down the moon" go back much further than even Theocritus, to at least 5th century Athens. In Aristophanes comedy *The Clouds*, the character Strepsiades is desperately seeking to avoid his creditors, who will come to collect the money he owes them at the end of the month. In a scheme to avoid payment, he suggests to the character Socrates: "Suppose I bought a Thessalian witch and had her pull down the moon at night, and then locked it up in a round case, like a mirror, and then stood guard over it" (749-752).⁴ His plan hinges on the idea that if a Thessalian witch (*pharmakis*) could draw down the moon, then the end of the month would never arrive, and his debts would never come due. Although the premise is intended to be comically absurd, it also indicates that the concept of drawing down the moon would have been immediately familiar to Aristophanes' Athenian audience in 432 BCE, when the play was performed.

In a more serious example, from Plato's *Gorgias* (c. 380 BCE), Socrates advises Callicles not to make a political power play that might backfire on him, comparing this overreach to the act of drawing down the moon:

You at this moment have to consider how you may become as like as possible to the Athenian people, if you mean to be in their good graces, and to have power in the state; whereas I want you to think and see whether this is for the interest of either of us;—I would not have us risk that which is dearest on the acquisition of this power, like the Thessalian enchantresses, who, as they say, bring down the moon from heaven at the risk of their own perdition, (513).⁵

The implication of Socrates' advice is that both the natural order and the political order should be respected, and violation of either hierarchy has consequences. He reminds Callicles that when Thessalian women bring down the moon, they exercise a power that does not belong to them, and as a result they pay a price. In *de Morbo Sacro* (c. 400 BCE), Hippocrates also uses the example of drawing down the moon as a framing device to help distinguish between pious and impious acts, sacred and mundane causation. He argues that the source of all disease is physical - rather than divine – and that the physician should therefore provide natural remedies. In his assessment, divine healers are either impious or con-artists:

For, if they profess to know how to bring down the moon, darken the sun, induce storms and fine weather, and rains and droughts, and make the sea and land unproductive, and so forth, whether they arrogate this power as being derived from mysteries or any other knowledge or consideration, they appear to me to practice impiety, and either to fancy

⁴ Aristophanes, *Clouds. Wasps. Peace*, ed. and trans. Jeffrey Henderson, Loeb Classical Library 488 (Cambridge, MA: Harvard University Press, 1998) 111.

⁵ Plato, Gorgias, trans. by Benjamin Jowett, The Project Gutenberg EBook #1672, 2008.

that there are no gods, or, if there are, that they have no ability to ward off any of the greatest evils. $^{\rm 6}$

For Hippocrates, like Plato, "to bring down the moon" is an act of subversion, disrupting the rational order of the cosmos.

From these examples, collected from a time span of almost 500 years, a picture begins to emerge. Drawing down the moon is perceived as an act of astral magic, involving the moon and in Hippocrates example also the sun. It is predominantly practiced by women, and is often associated with women from Thessaly. According to Hippocrates, drawing down the moon was associated with an influence on weather, crops, and healing. According to Virgil it could influence emotions and desires, acting as a powerful love spell. According to Aristophanes, some desperate souls might even try it out to avoid bankruptcy. And both Plato and Hippocrates insinuate that it is disrupting the natural order of the cosmos - as well as an implicit socio-political structure – and for this reason it is subversive, dangerous, impious, suspect, con-artistry, and perhaps punishable.

For all of these reasons, Manilius' choice of words in the opening lines of the Astronomica is surprising and provocative. Why would Manilius characterize himself and his poem in such unorthodox terms...precisely as he sets out to exalt the science of astrology? The issue is further complicated by the fact that at other points Manilius contradicts his earlier position. In Book 2 he states, "who could deny the sacrilege of grasping an unwilling heaven, enslaving it, as it were, in its own domain, and fetching it to earth?" (2.127f). Here, suddenly the drawing down (*deducere*) of heaven to earth is a sacrilege, and a violation of the cosmological order. It appears that two seemingly opposing worldviews are described in the Astronomica: the scientific rationality of an ordered universe that can be comprehended through knowledge - where one can be elevated through their rational mind - and a magical practice ostensibly capable of reversing this order and drawing the planets down to earth. Similarly, we are presented with both a Stoic belief in the immutability of fate and an astral magic belief that one's fate is (to some extent) malleable. How should we make sense of this? How did Manilius reconcile these two philosophies? And most importantly of all, what might this tell us about the astrological tradition transmitted in the Astronomica?

In her essay *Pious and Impious Approaches to Cosmology in Manilius*, Volk investigates these instances of contradiction, which she describes as "the inherent ambivalence of Manilius' presentation of the 'right' attitude to the cosmos."⁷ While this tension occurs throughout the *Astronomica*, Volk identifies it immediately in the opening lines of the poem:

Since magical practice is often imagined as the magician's binding or overpowering gods or spirits and making them do his bidding, and given that in Manilius' cosmos, the stars can be regarded as divine, it is clear that the poet here takes on the role of sorcerer about to subject the forces of nature to his will.⁸

⁶ Hippocrates, *The Genuine Works of Hippocrates*, trans. Charles Darwin Adams (New York: Dover, 1868) 365.

⁷Katharina Volk, "Pious and Impious Approaches to Cosmology in Manilius," *Materiali e discussioni per l'analisi dei testi classici*, No. 47 (2001): 86.

⁸ Volk, "Pious and Impious Approaches," 98.

Volk argues that this cosmological ambivalence runs throughout the Astronomica. In Volk's reading, it is also present when Manilius' recounts the divine origins of astrology (1.25-33), describing Mercury as both gifting astrology to humans, and also stealing it from the gods in the process.⁹ In these examples, Manilius' words communicate on two registers simultaneously, seemingly infused with two sets of meaning. Volk ultimately concludes that "the resulting ambivalence in distinguishing between pious and impious approaches to the universe in the Astronomica is best understood as a result of Manlius' poetic references, and the consequence of Manilius' somewhat indiscriminate eclecticism in choosing poetic images."¹⁰

While Volk's interpretation of the Astronomica is incredibly insightful, and while I agree that literary allusion and dramatic effect were undoubtedly important considerations for Manilius' poetics, I think there is more to the puzzle. I think that Manilius depiction of different (sometimes conflicting) cosmological approaches also reflects an awareness of the diversity of the philosophical viewpoints that contributed to the formation of Hellenistic astrology. While Manilius' own cosmological perspective was clearly influenced by Stoicism and a deterministic philosophy, the Astronomica also communicates that this is not the only framework for understanding or practicing astrology. In this sense, Manilius seems to acknowledge that astrology is not only a language for interpreting what fate has written in the stars, but also might be used as a language for petitioning the planetary gods, or in the case of drawing down the moon, harnessing their power through astral magic.

Immediately after his introduction, once his spell is cast and his alters lit, Manilius launches into an account of the early development of astrology. Astrological knowledge was "first to inspire those kings whose minds reached out to heights" bordering on heaven...whose lands are severed by the Euphrates or flooded by the Nile" (1.41-44). "Then priests," who Manilius' describes as working for generations in their temple observatories, "founded our noble science and were the first by their art to discern the destinies dependent on the wandering stars" (1.51-52). In other words, the science of astrology was founded on Babylonian and Egyptian astronomical data and astral omen observation. As Volk observes, these lines also communicate two meanings; on the one hand priests "receive their revelations from god (48-50)" but on the other hand "they <bind> the god, officio uinxere deum,...and is reminiscent of the binding of gods and spirits practiced by magicians."¹¹ Here again, Manilius' language seems to acknowledge, and even celebrate, the potential for astrology to harness celestial power. In fact, throughout his account of the history of astrology, Manilius repeatedly returns to this theme, weaving this cosmological perspective into the foundation myth and early development of astrology.

Within this context, I would argue that by invoking the ancient astrological technique of drawing down the moon at the beginning of his account of the history of astrology, Manilius not only pays homage to a famous early group of female astrological practitioners in Thessaly, but he also surreptitiously affirms their place within the history of astrology. It also seems clear that if the act of drawing down the moon did not resonate with his audience as a powerful and respected astrological technique, then Manilius would have had no reason to dramatically cast himself as a practitioner of the art. In the next section of this

⁹ Volk, "Pious and Impious Approaches," 108-110.

 ¹⁰ Volk, "Pious and Impious Approaches," 114.
 ¹¹ Volk, "Pious and Impious Approaches," 110-111.

paper, I hope to show that while the specific techniques involved in drawing down the moon remain unclear, it is likely that it was based in knowledge of both the Babylonian Soros Cycle and Mesopotamian lunar omen astrology. While the practice was probably distinct from the Hellenistic astrological doctrines that developed later, it nonetheless suggests an earlier cultural exchange, expanding our understanding of the early transmission of information between Mesopotamia and Greece.

PART 2: AGLAONICÊ & THE WOMEN OF THESSALY

Before turning to the evidence that exists for a tradition of astrological practice in Thessaly, I would like to briefly contextualize the terms astrology and magic, as they are used by the ancient sources referenced in this paper. In his study of magic in the ancient Greco-Roman world, Edmonds makes the point that there is no hard line separating secular religious practice and magical ritual. Likewise there is no clear distinction between science and magic. In both cases, the labeling of magic often communicates a perceived deviance in socio-political norms, and often is more descriptive of the status of the practitioner, rather than what exactly is being practiced. Edmonds observes,

Rather than a discourse like magic being a thing that can be defined by a single necessary and sufficient criterion, it is a label applied by one person to another person, act, or thing, who defines it as non-normative for one of a variety of reasons. What is considered non-normative therefore depends on who is labeling whom in what circumstances.¹²

Reflecting back on Socrates' and Hippocrates' statements, we should note the subversive and non-normative judgment implicit in both of their remarks. Plato judges the possession of religious and/or scientific power by women to be dangerous and subversive. Likewise Hippocrates indirectly calls into question the efficacy of medicine practiced by women. The deviance is not *what* is being done, but *who* is doing it. Edmonds defines this as the practitioner's *sociopolitical location*, explaining:

someone may be marked as a non-normative member of society, especially by someone who considers himself normative, simply on the basis of that person's place in society. If the mature male citizen is taken as the normative member of society in the Greco-Roman world, then anyone who is not a citizen, not a mature adult, or not a male may be marked as non- normative, objectively profane in Bourdieu's terms.¹³

While the distinctions between religion, science, and magic are complex, and beyond the scope of this paper, for the purpose of this analysis it is important to note the delegitimizing force that is often attached to the labeling of something as magic. With this criterion in mind, it is important to objectively consider if the act of drawing down the moon might be considered something other than magic, if it were performed by someone other than a Thessalian woman. While many of the classical sources we have surveyed describe the women of Thessaly as sorceresses, witches, enchantresses, and con-artists...would a more objective word be astrologer? Might the same act, performed by more normative and

¹² Radcliffe Edmonds, *Drawing Down the Moon: Magic in the Ancient Greco-Roman World* (Princeton: Princeton University Press, 2019), 11-12.

¹³ Edmonds, *Drawing Down the Moon*, 19.

empowered members of society be considered a form of astrological practice or astronomical observation?

In Plutarch's essay *De Defectu Oraculorum*, there is very strong evidence to suggest that the act of drawing down the moon was grounded in astronomical observation. In fact, he tells us about a specific astronomer famously associated with the technique of drawing down the moon, Aglaonicê of Thessaly:

The women of Thessaly are said to draw down the moon. This cunning deceit of theirs, however, gained credence among women when the daughter of Hegetor, Aglaonicê, who was skilled in astronomy, always pretended at the time of an eclipse of the moon that she was bewitching it and bringing it down.¹⁴

In another essay, *Conjugalia Praecepta*,¹⁵ Plutarch elaborates on Aglaonicê's astronomical abilities, suggesting that they were so widely known that there were even books written about her:

And if anybody professes power to pull down the moon from the sky...and has read in the books about Aglaonicê, the daughter of Hegetor of Thessaly, and how she, through being thoroughly acquainted with the periods of the full moon when it is subject to eclipse, and, knowing beforehand the time when the moon was due to be overtaken by the earth's shadow, imposed upon the women, and made them all believe that she was drawing down the moon.¹⁶

Whatever Plutarch's personal reservations about astronomical skills in the hands of women, this passage unquestionably describes a female astronomer from Thessaly who developed a reputation for her knowledge of eclipse times. His account suggests that she was versed in knowledge of astronomy, astronomical computations, the Metonic Cycle and the Soros Cycle developed by Babylonian astronomers. As such, Aglaonicê may deserve the title of the earliest recorded female astronomer in ancient Greece.

Aside from this reference by Plutarch, the only other reference we have to Aglaonicê is from an anonymous commentator from late-antiquity. In the margins of lines 59-61 of Apollonius' *Argonotica*, the scholiast notes that Aglaonicê lost a close relative after one of her performances. The death of her relative was apparently perceived by some as divine retribution for her act of drawing down the moon. Unfortunately, it is impossible to determine a chronology of her life from these existing references. She could not have lived later than 100 CE, when Plutarch wrote about her, but it is more difficult to determine the earliest possible date for her life. Peter Bicknell has argued that Babylonian astronomers did not perfect eclipse prediction techniques until the Seleucid Period, and for this reason Aglaonicê could not have lived before the middle of the 3rd century BCE.¹⁷ Yet, Aristophanes references drawing down the moon in 423 BCE, and so some form of the practice was familiar centuries earlier.

¹⁴ Plutarch, *Moralia*, Vol. V, trans. Frank Cole Babbitt. Loeb Classical Library 306 (Cambridge, MA: Harvard University Press, 1936) 389.

¹⁵ Interestingly, the context for this reference is Plutarch's advice on the proper education of one's wife - providing her with an orthodox intellectual framework and helping her to properly understand her subordinate role within her marriage and within Greek society. Plutarch uses Agaonicê as a warning against the dangers that arise when this hierarchy is subverted.
¹⁶ Plutarch, *Moralia*, 339.

¹⁷ Peter Bicknell, "The witch Aglaonice and dark lunar eclipses in the second and first centuries BC," *Journal of the British Astronomical Association* 93, no. 4 (1983) 161.

This means that either Aglaonicê lived much earlier, in the 5th century BCE, or that she was a prominent practitioner within a much longer astrological tradition in Thessaly.

So far, Plutarch does not specify Aglaonicê's intention in the act of drawing down the moon. It was clearly based in impressive astronomical knowledge and the ability to precisely predict eclipse times. But Plutarch also belittles her skill, implying that she used her astronomical knowledge merely to trick her uneducated audience: "knowing beforehand the time when the moon was due to be overtaken by the earth's shadow, imposed upon the women, and made them all believe that she was drawing down the moon." The question remains: was "drawing down the moon" the trick or hoax that Plutarch suggests, based on astronomical knowledge of eclipse times? Or was it a practice rooted in astrological principles and intended to influence mundane events through taking advantage of celestial timings? In other words, can we say that Aglaonicê (and other women from Thessaly) were astrologers?

In *De Defectu Oraculorum*, the same essay where Plutarch discusses Aglaonicê, he also provides valuable insight into the astrological concepts that may have been associated with drawing down the moon. Plutarch tells us that the moon is "a body with complex characteristics which actually parallels the demigods," and that both the moon and demigods are capable of connecting the earth to the immortal heavens.¹⁸ Plutarch goes on to say that

when men see that [the moon], by her being consistently in accord with the cycles through which those beings pass, is subject to apparent wanings and waxings and transformations, some call her an earth-like star, others a star-like earth, and others the domain of Hecatê, who belongs both to the earth and to the heavens.¹⁹

Plutarch tells us that the moon is like a *daimon*, playing the role of cosmic intermediary, translating between the mortal and the divine, terrestrial and cosmic realms. Amplifying this comparison, he states, "we bring the god into men's emotions and activities, drawing him down to our needs, as the women of Thessaly are said to draw down the moon."²⁰ In other words, Plutarch suggests that drawing down the moon is an astrological technique that harnesses celestial powers in order to influence terrestrial events. By extension, he suggests that Aglaonicê was practicing astrology.

Plutarch's characterization of the moon as intermediary between cosmic and terrestrial realms is of course a fundamental astrological principle. As George states:

The moon is the planet that is closest to Earth. Due to her swift motion, she circles the entire zodiac every month. Along her course she is able to make applying aspects with each of the other planets. As she does so, she was thought to gather up their effluences and transmit them to Earth. It follows that if the Moon applies to a planet, she is able to help bring down and make manifest the significations of that planet into the terrestrial realm.²¹

¹⁸ Plutarch, *Moralia*, 387.

¹⁹ Plutarch, *Moralia*, 387.

²⁰ Plutarch, *Moralia*, 387.

²¹ Demetra George, *Ancient Astrology: In Theory and Practice*, Vol. 1 (Auckland, New Zealand: Rubedo Press, 2019) 320.

The moon's ability to pull down celestial energy makes her a powerful conduit. For this reason, lunar applications and separations are an import tool for chart interpretation, as well as a key consideration in electional practices. This is also the case in horary astrology, the Moon's ability to collect light and to transfer light makes her an important significator in the chart.

In Plutarch's description of drawing down the moon, it can be inferred that Aglaonicê specifically applied these lunar principles to eclipse times. This practice would link her to a tradition of Babylonian eclipse observation and predictive techniques that go back millennia. Surviving clay tablets preserve solar eclipse events that occurred as early as 1375 BCE, and this data eventually enabled Babylonian astronomers to determine the Saros-cycle - the period of 223 synodic months (18 years and 11.3 days) after which point eclipses repeat themselves. Babylonian astrologers regarded eclipses as powerful omens, with lunar eclipses indicating particularly dangerous events, often predicting the death of king. In order to safeguard the king from impending disaster, a "replacement king" would customarily be placed on the throne during these ominous times, while the actual king went into hiding for 100 days.²² With this in mind, it is interesting to recall that the scholiast commentary on Aglaonicê attributes the death of her close relative to her act of drawing down of the moon during a lunar eclipse. This detail suggests a link between Aglaonicê's practice of drawing down the moon and the Babylonian association of ominous events with lunar eclipses.

Plutarch's description makes it clear that Aglaonicê was using Babylonian astronomical methods, and also implies that drawing down the moon was an astrological act. Yet there is nothing in his description to explain the history of this tradition, and where it might have originated. However, there is one tantalizing piece of evidence that suggests a line of transmission between the Thessalian astrological practice of drawing down the moon and the Babylonian astrological tradition. In a 7th century BCE letter written to the Neo-Assyrian King Esarhaddon, we hear of a reconnaissance mission in Guzana – an ancient city in the northeast corner of what is now Syria. King Esarhaddon is warned about enemies there:

As for the messengers whom the king, my lord, sent to Guzana, who would listen to the disparaging remarks of Tarasi and his wife? His wife, Zazâ, and Tarasi himself are not to be spared....Their women would bring the moon down from heaven!²³

King Esarhaddon was a particularly paranoid individual who had a complex network of informants throughout his kingdom, and performed the "substitute king" ritual at least 3 times during his reign in order to avoid negative prophecies and conspiracies. In this context, the reference to drawing down the moon in this letter to King Esarhaddan can be interpreted as relating to the Mesopotamian astrological belief that eclipses were dangerous omens. At the same time, this reference is consistent with the way that drawing down the moon is characterized by classical Greco-Roman sources, where it is both associated with women and also in the case of Plato linked to political power struggle. The fact that the term communicates a consistent meaning between this Neo-Assyrian source and later classical sources, seems to suggest that the concept of drawing

²² NASA website - https://sunearthday.nasa.gov/2006/locations/babylon.php

²³ Erica Reiner, *Astral Magic in Babylonia* (Philadelphia: American Philosophical Society, 1995), 98.

down the moon originated in Mesopotamia and was later translated into Greek culture.

While there is not enough existing evidence (to my knowledge) to conclusively prove this theory, it does fit within the generally accepted timeline of Greek astronomical advancements. Records of Babylonian celestial omen observation were systematized over many centuries in the *Enuma Anu Enlil* astral omen texts. In turn, this data was used to determine the Soros Cycle for accurate eclipse prediction, and after 800 BCE Babylonian astronomers were able to accurately predict eclipse events taking place anywhere in the world – even eclipses that were not visible within Babylonia.²⁴ There is evidence that the concept of the Soros Cycle was transmitted to Greece by the 5th century BCE, and that it directly informed the calculations of Meton of Athens, who announced his theory of the Metonic Cycle in 432 BCE.²⁵ This timeline shows that it would have been possible for an understanding of the Soros Cycle and/or the Metonic Cycle to have reached Thessaly by the 5th century BCE, contributing to the astrological practice of drawing down the moon.

Meanwhile, the practice of Babylonian astral divination continued in Mesopotamia during the Neo-Assyrian empire. The omens and predictions of the Enuma Anu Enlil are referenced numerous times in letters between Assyrian and Babylonian scholars and the kings Esarhaddon and Assurbanipal.²⁶ Due to Essarhaddon's distrust of his male relatives, servants, and officials, he frequently consulted oracles and priests regarding his safety. It is significant that we also encounter the phrase "bring the moon down from heaven" in a letter to Esarhaddon, since his well-documented reliance on omens and predictions increases the likelihood that the phrase had some relationship to Babylonian lunar omen astrology. Whatever its specific meaning, the usage of the term in this 7th century letter also proves that the concept drawing down the moon dates back to at least the Neo-Assyrian Empire. The date of this letter also suggests the possibility that the concept was transmitted to Greece, and that it informed the Thessalian practice of drawing down the moon, first referenced in 423 BCE. In summary, both the astrological and mathematical underpinnings of the practice of drawing down the moon seem to have originated in Mesopotamia by the 7th century BCE, and it is entirely likely that these concepts were translated to Thessaly by the 5th century BCE.

Of course, Babylonian use of solar and lunar eclipses in astral divination was also translated into the Hellenistic astrological tradition. While the specific details of this cross-cultural transmission also remain obscure, this knowledge was fully assimilated into Hellenistic astrological doctrines by the middle of the 2nd century CE. For example, Valens describes the significance of eclipse points in natal astrology:

the places of the nativity in which eclipses happen...must be noted, because it is from these that distinguished, governing, and royal nativities derive their distinctive differences in occupation and glory; it is from these that great and marvelous forecasts usually come, carrying

 ²⁴ NASA website - https://sunearthday.nasa.gov/2006/locations/babylon.php
 ²⁵ Coincidentally, like the women of Thessaly, Meton is also mentioned in one of Aristophanes plays.
 He has a small role in The Birds (414 BCE).

²⁶ Moonika Oll, *Hellenistic Astrology as a Case of 'Cultural Translation'* (doctoral dissertation, University of Birmingham, 2010) 46.

some to unparalleled fortune, others to a lowly and easily-ruined condition.²⁷

Ptolemy also tells us about their importance in mundane astrology: "the first and most potent cause of...events [for countries and cities] lies in the conjunction of the sun and moon at eclipse and the movement of the stars at that time."²⁸ He explains how eclipses can be used to determine the time, length, and place of predicted events, the class of people who will be affected, and whether the event will have a positive or negative outcome.

While it is impossible to reconstruct the specific techniques and principles underpinning the practice of drawing down the moon, it was likely distinct from these Hellenistic astrological doctrines that developed later. For example, there is nothing to suggest that it involved natal astrology or that it shared the same cosmological viewpoint or deterministic philosophy of later Hellenistic astrologers. Nonetheless it suggests that Mesopotamian astrological knowledge was translated to Greece during the 5th century BCE, inspiring both astronomical discoveries and also some form of astrological practice in Thessaly.

It is tempting to wonder whether this early transmission of astrological knowledge, and the practice of drawing down the moon made famous by Aglaonicê and other women in Thessaly, might have intersected with later Hellenistic astrologers. Did it remain distinct from later astrological developments or are traces of it preserved in Hellenistic techniques? Manilius, in his introduction to the *Astronomica*, seems to hint that it did survive.

²⁷ Vettius Valens, *The Anthology*, trans. Mark Riley, 78.

²⁸ Ptolemy, *Tetrabiblos*, ed. and tran. F.E. Robbins, Loeb Classical Library 435 (Cambridge, MA: Harvard University Press, 1940) 161.

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