

# The Sacred Puns that Imparted Aries' Astronomical Appearance and Mythical Flight with Phrixus and Helle

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**Abstract:** In Mesopotamia, Aries was known as the “Hired-Worker” constellation. The abbreviated, cuneiform spelling for this constellation, LU, was also the cuneiform sign for “Ram.” Scholars have inferred that this pun inspired the transformation of Aries from its Mesopotamian appearance as a “Hired-Worker” into the Greek “Ram.” Later, Greek astronomer-poets attached mythical attributes to Aries, with Hesiod (circa 700 BC) being the first extant author to describe it as the golden-fleeced, flying Ram that carried the siblings Phrixus and Helle to safety, the latter falling into the sea during the journey.

The current article illustrates that Aries astronomical appearance as a golden-fleeced, flying Ram and its mythical flight with Phrixus and Helle correlate directly with wordplay encrypted in this constellation’s cuneiform spellings. Puns embedded in the various cuneiform titles for the Mesopotamian “Hired-Worker” constellation embodied in Aries also imparted the words: “the Hired-Worker, becomes, the flying, golden, fleece, ram, transporting, curly (Phrixus), Helle, fell, into, the sea”; words that reappear as the theme of the golden-fleeced Ram’s mythical journey with Phrixus and Helle, the latter youth falling into the sea en route.

Cuneiform literature confirms that the title of the Mesopotamian astronomer was *tupšarru*, “writer”—a scholar who envisioned the constellations as a divine cuneiform “text” which revealed inviolable wisdom through the medium of wordplay. Archaeological and textual data insinuates that this Mesopotamian conviction was transmitted directly into the Hellenic cultural sphere in the eighth century BC, and was therefore accessible to Hesiod, the first known author to identify Aries as the golden-fleeced, flying Ram carried Phrixus (“Curly”) and Helle. The current article argues that Hesiod, or someone collaborating with him, had discerned the aforementioned strand of cuneiform puns and utilized them as the theme for Aries’ astronomical appearance as a “flying, golden-fleeced Ram,” as well as the mythical story of this Ram’s flight with Phrixus and Helle, the latter falling into the sea.

## Introduction

The story of the golden-fleeced, flying ram that carried Phrixus and Helle to the city of Colchis was a popular Hellenic myth. A succinct account of the event is described in “The Library” of the second century author Apollodorus.<sup>1</sup> There we learn that Athamas, the ruler of Boeotia, had a son named Phrixus and a daughter named Helle by the cloud goddess Nephele.

Athamas went on to take a second wife, Ino, whose jealousy for her step-children led to a ruse in which the boy, Phrixus, was to be sacrificed. We then read:

But Nephele caught him and her daughter up and gave them a ram with a golden fleece, which she had received from Hermes, and borne through the sky by the ram they crossed land and sea. But when they were over the sea which lies betwixt Sigeum and the Chersonese, Helle slipped into the deep and was drowned, and the sea was called Hellespont [“Helle’s Sea”] after her.<sup>2</sup>

In *Katasterismoi*, “Placings Among the Stars,” Greek astronomer-librarian Eratosthenes (circa 274-194 BC) identified Aries thusly:

The Ram. This it was that transported Phrixus and Helle. It was immortal and was given them by their mother Nephele, and had a golden fleece [*chrusēn doran*], as Hesiod and Pherecydes say.<sup>3</sup>

Eratosthenes goes on to state that the Ram shed its fleece and flew up to the stars as Aries.<sup>4</sup> Hence the golden Ram’s flight with Phrixus and Helle served as its *katasterism*, “placing among the stars,” which explained how this creature attained immortality as a constellation in heaven.<sup>5</sup>

A crucial point here is that Hesiod seems to have already envisioned Aries as a constellation at the time he was recounting the story of its mythical birth. This becomes germane to the current article because of Hesiod’s background. We will soon see that this author relied heavily on the writings of the Babylonian-Assyrian creation epic *Enuma Elish* in composing his *Theogony*. And *Enuma Elish* was one of the reference manuals of the Mesopotamian astronomer.<sup>6</sup> Reliance on *Enuma Elish* presupposes knowledge of astronomical arcana revered by Mesopotamian astronomers. And it is esoteric Babylonian and Assyrian celestial wisdom that exposes the origin of the zodiacal Ram, the belief that it could fly and had a golden fleece, as well as the story of its mythical journey with Phrixus and Helle, the latter girl tragically falling into the sea.

## **Mesopotamia: the Origin of Many Greek Constellations**

Historians of astronomy concur that many of the Hellenic constellations originated in Mesopotamia.<sup>7</sup> E. C. Krupp notes that a little less than half of the forty-eight constellations codified by Claudius Ptolemy are founded on originals in Mesopotamia, adding that:

Most specialists are convinced that many Greek constellations were imported from Mesopotamia, although the routes by which they arrived are neither clear nor embraced by consensus.<sup>8</sup>

And it is in Mesopotamian astronomers' arcane conceptions of the celestial sky that provide the most eloquent explanation for the abrupt appearance of a flying, golden-fleeced Ram that carried the siblings Phrixus and Helle, the latter youth falling into the sea.

### **Reading the “Heavenly Writing” of the Stars**

When we review Mesopotamian astronomical writings inscribed upon clay tablets in the cuneiform, or “wedge-shaped,” script we find practices that we today can clearly recognize as astronomical. This includes the cataloguing of the starry sky into named constellations, the mapping of the celestial sphere into three levels of incipient declination, the codifying of the rising and setting times of stars for time-reckoning, and intercalation schemes that function to synchronize the 354-day lunar calendar with the 365-day solar year.<sup>9</sup>

Yet Mesopotamian astronomers engaged in additional duties that we today would never classify under the genre of “astronomy.” The Fertile Crescent astronomer was one class of “scholar, expert” called an *ummānu*, who was proficient in one or more of the occult arts that involved interlocution with the divinities and included the astrologer, the diviner, exorcist, physician, and lamentation-chanter.<sup>10</sup> The late nineteenth and early twentieth century scholarly definition for *ummānu*, “magician, astrologer, sorcerer,” underscores the title’s esoteric nature.<sup>11</sup> Therefore, the Mesopotamian “astronomer” was in function an “astrologer,” as the two terms were not effectively discriminated until the sixth century AD.<sup>12</sup> The title of the Mesopotamian “astronomer-astrologer” was *tupšarru*, a term that literally meant, “writer, scribe,” and referred to an expert in the celestial divination series, *Enūma Anu Enlil*.<sup>13</sup> Such scholars were adept at reading and writing in the highly complicated cuneiform writing system, a task that included mastery of their own spoken tongue, Akkadian, as well as proficiency in the reading and writing of Sumerian, which was the “dead” language of the southern Mesopotamian people from whom the Akkadian-speaking Babylonians and Assyrians adopted the cuneiform script. Proof of the latter is seen with the fact that many constellation and planet names retain their Sumerian rather than Akkadian spelling.<sup>14</sup>

The astronomer's reference manuals were not confined to just astronomical and astrological subjects. A list of texts edited by astronomer-astrologers serving Assyrian King Esarhaddon confirm that they also utilized the *The Tale of Atra-Ḫasis* (i.e., the creation story that included the oldest Flood story), *The Gilgamesh Epic*, and the Babylonian-Assyrian creation epic *Enuma Elish*.<sup>15</sup> Astronomers were also very familiar with the circa 1800-1600 BC bilingual Sumerian-Akkadian “dictionaries” that listed a Sumerian logogram beside its Akkadian meaning,<sup>16</sup> a Sumerian logogram consisting of a cuneiform sign or sign grouping that came to represent an Akkadian word with the equivalent meaning.<sup>17</sup> Modern scholars typically transcribe Sumerian logograms into capital letters, a convention that will be applied to all Sumerian words in this paper.

The Sumerian-Akkadian dictionaries indicate that the Sumerian logogram for “star,” MUL, stood for the Akkadian word *kakkabu*, “star,” as well as the terms *šitirtum*, “inscription,” and *šitru*, “writing.”<sup>18</sup> This point is highlighted by the entry: USAN *šitir kakkabū*, “Evening [means] the writing of the stars.”<sup>19</sup> Moreover, MUL was the common determinative (i.e., noun classifier) used before the names of planets, stars, and constellations.<sup>20</sup>

This provides a remarkable glimpse into the worldview of the Babylonian-Assyrian astronomer: each constellation, star, and planet was construed as a piece of heavenly “writing” or “inscription.” And because stars, constellations, and planets embodied deities this writing was numinous—literally the “writing” of the star-gods. Francesca Rochberg comments:

The metaphor may be interpreted to express the idea that a written message was encoded in the sky, and that the message was a form of communication from the gods.<sup>21</sup>

The belief that each MUL/“star” was an “inscription” developed into the conviction that the starry sky consisted of *šitirti šamāmi*, *šitir šamê*, or *šitir burūmê*, “heavenly writing.”<sup>22</sup> Hence the Babylonian-Assyrian “astronomer”/šupšarru was a highly literate “writer” who envisioned the starry sky as a divine cuneiform “text.”

## **The Prevalence of Puns in Cuneiform Writing**

Mesopotamian astronomers knew that their syllabic script lent itself to vast opportunities for polysemy, i.e., multiple meanings in a word or phrase, a point illustrated in Fig. 1. We have

noted that the cuneiform sign MUL was a Sumerian logogram that represented the Akkadian word *kakkabu*, “star,”—yet also functioned as the logogram for the Akkadian *šīirtum* “inscription” and *šītru* “writing.” In addition, MUL represented the Akkadian verb *nabātu*, “to shine brightly.”<sup>23</sup> Thus, when a Mesopotamian astronomer inscribed or read the cuneiform sign MUL it could potentially interject the meanings “star, inscription, writing” and “brightly shining.”

Moreover, the potential for polysemy increased due to the vast number of homophones (i.e., words that have the same pronunciation but different spellings and meanings, e.g., *to*, *too*, *two*) found among the Sumerian logograms. The expansive number of homophones in cuneiform writing necessitated that modern linguists devise a transliteration system which allows researchers to distinguish which cuneiform sign appears on a tablet.<sup>24</sup> This scholarly convention is exemplified in Fig. 1, which shows five different cuneiform signs that could be read “MUL.” The sign most frequently read “MUL” does not have a subscript number; the second most frequent reading for the “MUL” sign is transliterated MUL<sub>2</sub>; the third most frequent reading for “MUL” is transcribed MUL<sub>3</sub>, and so forth. Crucial for readers to remember is that *the subscript numbers are a modern convention*; an ancient astronomer would have pronounced all five of these signs as “MUL.”



**Figure 1: Five Sumerian logograms that were read “MUL.” (sketch by Ashely McCurdy)**

In addition, the five “MUL” signs served as logograms for other Akkadian words, a fact already demonstrated with MUL. The cuneiform sign MUL<sub>2</sub> represented *kakkabu* “star” and *nabātu* “shine brightly,” but could also be read TE and represented many additional words including: *uššu*, “foundation,” *simtu*, “ornament,” and *saḫālu*, “to pierce.”<sup>25</sup> MUL<sub>3</sub> stood for *kuzāzu*, “wood wasp.”<sup>26</sup> MUL<sub>4</sub> represented *kakkabu* “star” and *nabātu* “shine brightly”—but it was also read UL and stood for the Akkadian words: *šātu*, “distant time,” *inbu*, “fruit,” and *ḫabāšu*, “to swell.”<sup>27</sup> MUL<sub>5</sub> was an infrequent logogram for *kakkabu* “star,” but was commonly read IKU, which represented the Akkadian *ikū*, “field.”<sup>28</sup> Hence, when a Mesopotamian magician read or inscribed the cuneiform sign MUL on a tablet it could potentially interject the words “star, shine brightly, inscription, writing, foundation, ornament, pierce, wood wasp, distant time, fruit, swell” and “field” through homophonous punning. Remarkably, Fig. 1 presents only a portion of the variable readings and meanings for the five cuneiform signs read “MUL.”

The thousands of Sumerian logograms, their homophonous nature, their potential to be read in multiple ways, combined with Babylonian-Assyrian scholars' penchant to attribute multiple Akkadian words to a single logogram resulted in an enormous opportunity for wordplay to emerge in cuneiform writing. Victor Hurowitz summarizes the phenomenon:

The highly complex cuneiform writing system, in which every word could be written in a variety of ways and each sign had a potential of bearing numerous different phonetic or logographic readings, afforded Mesopotamian scribes unique levels of playing on written forms of words unavailable to scribes writing languages that employed alphabetic scripts.<sup>29</sup>

One form of punning definitely involved the “heavenly writing” of the constellations. A monumental inscription made by the Assyrian king Esarhaddon (680-669 BC) finds him writing his name in *lumāši*, or “constellation”-writing. The passage reads: *lumāši tamšil šitir šumiya ēsiq šēruššun*, “I carved on them constellations, the image [i.e., equivalent] of the writing of my name.”<sup>30</sup> Although Esarhaddon never mentions why he chose to write his name in the cuneiform signs, words, and images that were used to spell and depict the constellations, Scott Noegel cites similar texts that refer to “hidden words” (*amāt niširti*) as the “secrets of the gods” (*pirištu ša ili*).<sup>31</sup> The implication being that Esarhaddon was communing with the gods in their own cryptic form of divine communication: secret messages delivered by puns encrypted in the constellations' images and the titles. Michael Roaf and Annette Zgoll have coined the term ‘astroglyph’ to describe *lumāši*-writing, and emphasize some of the script's characteristics:

... some signs are fairly obvious symbolic representations (direct or indirect pictograms), while others are derived from scribal knowledge of the forms of cuneiform signs, from equivalences between Sumerian logograms and Akkadian words ... Such linguistic and visual puns ... are commonly found in the Mesopotamian world.<sup>32</sup>

Esarhaddon's use of *lumāši*-writing—i.e., enigmatic wordplays encrypted pictorially and linguistically in the constellation images and titles—implies an established scholarly tradition for encoding and deciphering such puns. And although Esarhaddon is the only author to specifically refer to *lumāši*-writing (i.e., ‘astroglyphs’), scholars have suspected that the use of similar

symbols in temples constructed by his grandfather, Sargon II (721-705 BC), were also inscribed in constellation-writing.<sup>33</sup>

A. R. George makes the following vital remark:

Some of this esoteric scholarly lore was committed to writing, but it may be that much of it will always remain hidden from us because it was passed down orally as secret knowledge.”<sup>34</sup>

This author contends that in using *lumāši*/"constellation"-writing to write his name, Assyrian King Esarhaddon had brashly or inadvertently disclosed a trade secret that was revered by Mesopotamian astronomer-magicians, i.e., that starry sky was a divine cuneiform "writing" that imparted sacrosanct wisdom through the medium of wordplay.

This knowledge gets us one step closer to the astronomical origin of Aries and the myth ascribed to it.

### **Wordplay as Revelation**

Today wordplay is typically regarded as a form of humor or witticism. Cuneiform literature indicates that punning held a far more sobering role—frequently being construed as a form of numinous inspiration. Scott Noegel explains how this phenomenon came about:

We tend to think of puns as a literary device—a sign of humor, rhetoric ... In antiquity, puns were not used in that way, because the conception of words was so different. Writing was considered of divine origin... Puns provided diviners with interpretative strategies.

Perhaps because the written word evolved from pictographs in Mesopotamia, words were considered the embodiment of the object or idea they represented. While we read the word "dog" and know that refers to a dog, ancient Mesopotamians would view the word "dog" as a dog in a concentrated form. As a result, individual words contained the power of essence, in this case the essence of a dog. *There was a whole envelope of information that came with every sign or part of a word.*<sup>35</sup>

Theodor Gaster adds, “The device [punning as the source of revelation] is based on the primitive idea that the name is an integral part of the identity. Accordingly, if a name possesses a double meaning, this implies *ipso facto* that what is so designated possesses a double aspect.”<sup>36</sup> Hence, the discovery of double entendre in a word or name was believed to divulge a hidden aspect of the entity it described.

This seems to explain why Babylonian and Assyrian magician-scholars—which included astronomers—embraced polysemy and puns with reverence, as if they had divulged a divine message illuminating a previously unknown aspect of the cosmos. Such pun-based edification was typically conceptualized as a revelation that had been imparted directly from the gods to humanity and was frequently accompanied with the admonition to keep this divine wisdom secret.<sup>37</sup>

Significant to astronomical and mythical origins of Aries is the manner by which divine names were analyzed for concealed puns that might disclose some aspect of the name’s possessor. George writes:

In ancient cuneiform scholarship the writing of a name can be adapted to impart information about the nature and function of its bearer...

... Babylonian scholars themselves were fond of the speculative interpretation of names in particular. *This was not a trivial pursuit but a means of revealing profound truth about the nature and function of deities and their attributes.*<sup>38</sup>

Put simply, if a Mesopotamian astronomer-magician discerned a pun within a deity’s name, he was inclined to construe this concealed meaning as a divine revelation from the gods—one that explained some previously unknown aspect or attribute of the deity in question. Such pun-based revelations were typically accompanied with some variation of the phrases: “*mūdû mūdâ likallim lā mūdû aj īmur*, ‘Let the learned instruct the learned, the ignorant may not see!’ ... *pirištu ša ilāni rabûti*, ‘Secret of the great gods!’ ...”<sup>39</sup> Hence, the discovery of a veiled pun in a god’s name or epithet was construed as inviolable wisdom exposing a previously unknown attribute of that deity. And once a pun-based revelation was discovered, scholar-magicians were implored to keep it secret.

Nowhere is this concept more apparent than in *Enuma Elish* tablet VII. Jean Bottéro has utilized the ancient scholars' commentaries on *Enuma Elish* to show that practically the entire seventh tablet was compiled through punning.<sup>40</sup> In that text Mesopotamian scholars deciphered wordplay from the fifty epithets for the supreme Babylonian deity, Marduk, and then arranged these into coherent statements that exposed facets of his identity and powers. Because the commentaries on puns given in *Enuma Elish* VII were an essential reference manual to Mesopotamian astronomers, and the ancient techniques for discerning and utilizing wordplay are pertinent to the rediscovery of Aries' astronomical and mythical origins, we will analyze one astronomical line to illustrate how this practice was employed.<sup>41</sup>

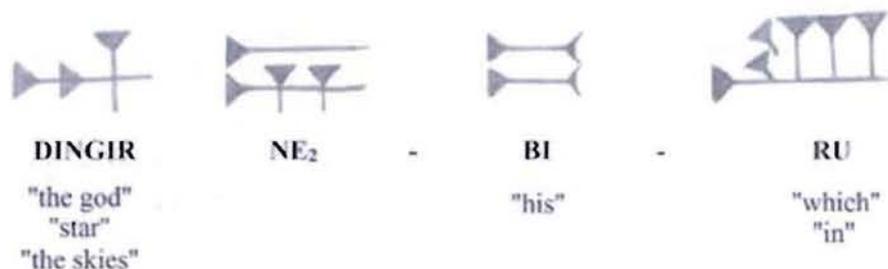
Line 126 of *Enuma Elish* VII reads:

The god Crossing [is] his star which in the heavens they caused to appear.<sup>42</sup>

The deity Marduk was embodied in the planet Jupiter.<sup>43</sup> Astronomical texts often refer to Marduk by the Akkadian epithet, DINGIR *Nēbiru*, "the god Crossing," a title applied to this planet-god when he stood on the meridian and was therefore "Crossing" the midpoint of the sky.<sup>44</sup> Even though *Nēbiru* is an Akkadian name, pun-seeking Babylonian magicians envisioned it as if it were the Sumerian logogram: DINGIR NE<sub>2</sub>-BI-RU.<sup>45</sup> They then analyzed this epithet for wordplay that exposed some previously undiscovered aspect of this planet-god's powers. From their expansive grammatical studies astronomers understood that the determinative DINGIR was also read AN, "skies, heavens," and was initially depicted by the symbol of a star,<sup>46</sup> therefore conveying the meaning *kakkabu*, "star," and *šamê*, "the skies," in Akkadian.<sup>47</sup> Sumerian-Akkadian dictionaries imparted that BI represented the Akkadian word *sû*, "his."<sup>48</sup> Bottéro notes that by the first millennium BC the vowel in consonant-vowel signs such as RU had become multivalent, thus the RU sign in NE<sub>2</sub>-BI-RU was also read RA, a nuance mentioned in the secret commentaries for this line;<sup>49</sup> and RA represented *ša*, "which," and *ina*, "in," in Akkadian.<sup>50</sup> An additional ancient commentary indicates that an earlier epithet for Marduk given in line 9, TU-TU, could be read DU<sub>2</sub>-DU<sub>2</sub>, thereby forging a homophone with the composite logogram DU<sub>6</sub>-DU, which meant *šūpû*, "to cause to appear, shine" in Akkadian; the latter verb then conjugated into the third-person plural *ušāpû*, "they caused to appear," to suit the grammatical needs of the pun.<sup>51</sup>

Therefore, polysemous readings embedded in the cuneiform signs used to write DINGIR *Nēbiru* produced the wordplays: *kakkabu*/"star," *šu*/"his," *ša*/"which," *ina*/"in," and *šamê*/"the skies"; while a previous epithet for Marduk given in line 9, TU-TU, phonetically imparted the logogram that could render *ušāpû*, "they caused to appear/shine" (Fig. 2). These puns were then arranged into a coherent statement that disclosed a previously unknown aspect of Marduk-Jupiter's powers, which was then recorded as a fact in verse 126 of *Enuma Elish* tablet seven

DINGIR NE<sub>2</sub>-BI-RU    *kakkab-šu*    *ša*    *ina šamê*    *ušāpû*  
 "The God Crossing [is] his star which in the skies they caused to appear."



**Figure 2: Each word from line 126 of *Enuma Elish* VII came from a pun enciphered in the cuneiform signs used to write the name of the planet-god *Nēbiru*. (sketch by Ashely McCurdy)**

Thus, the Babylonian-Assyrian astronomer/*tupšarru* was literally a "writer" who envisioned the astral sky as a sacred cuneiform "text" that imparted divine messages via polysemous readings for cuneiform signs—especially wordplay embedded in the title or epithet of a deity. And one of his most prized reference manuals consisted of the secret, scholarly commentaries on *Enuma Elish* VII.

### **Hesiod Influenced by *Enuma Elish***

The aforementioned Mesopotamian celestial arcana suddenly connects to Aries when we learn that the first extant Hellenic writer to describe this star-figure, Hesiod, was heavily influenced by *Enuma Elish*. The *Oxford Classical Dictionary* states that Hesiod's *Theogony* "has striking parallels in Akkadian and Hittite texts, and seems originally to have come from the near east."<sup>52</sup> In his analysis of Near Eastern influences on Hesiod's *Theogony*, Peter Walcot writes:

... its closest companions in Greek literature are the Homeric Hymns, but even closer is the picture of Zeus in the *Theogony* and that of Marduk in *Enuma Elish*, and it is to Babylonian tradition and the eighth century BC that we should resort if we wish to assess Hesiod's debt to the Near East.<sup>53</sup>

Hence, Hesiod either directly or indirectly relied upon *Enuma Elish* to compose *Theogony*. And dependence on *Enuma Elish* implies that Hesiod, or someone collaborating with him, was familiar with the methods used to discover the wordplays upon which tablet seven of that text was based.

How Hesiod might have become acquainted with the Akkadian *Enuma Elish* is seen in an archaic custom attested throughout ancient Near Eastern and Greco-Roman literature. Vanquishing monarchs conscripted foreign scholars of the occult—including astronomers—into their own entourage, where they served as hostages in the court of the new regime.<sup>54</sup> A prime example of this is seen in the Hebrew Bible's Book of Daniel. Verses 1:1-6 recollect how this young Jewish prophet and three of his countrymen were conscripted into the retinue of the conquering Babylonian king, Nebuchadnezzar II (604-562 BC), and that Daniel was to be "trained for three years, and after that ... to enter the king's service." His curriculum included learning "the language and literature of the Chaldeans [i.e., the Babylonians]," which was Akkadian and Sumerian, and, as we saw above, comprised numerous opportunities for punning.<sup>55</sup> Verse 5:11 confirms that Daniel had risen through the ranks to become the supervisor of all forms of prognostication, including astrology, "... King Nebuchadnezzar your father—your father the king, I say—appointed him [Daniel] chief of the magicians, enchanters, astrologers, and diviners" (Daniel 5:11, brackets inserted).

In his *Natural History* Pliny the Elder (23-79 CE) declares that a similar conscription resulted in astronomy's importation into Rome, "... slaves on sale that had been imported from over-seas; instances of these being Publilius of Antioch the founder of our mimic stage and his cousin Manilius Antiochus the originator of our astronomy ..."<sup>56</sup> And M. J. Geller recounts how a Babylonian *ummānu* "scholar-magician" was taken in Trajan's campaign in AD 116 and sold as a slave in Syria, where he eventually became the tutor for the Syrian author Iamblichus.<sup>57</sup>

This concept is illuminated by Bradley Parker's discussion of a Greek (Ionian) sea-born raid on an Assyrian-controlled Phoenician port dating to the reign of Assyrian king Tiglath-

pileser III (744-727 BC), an incursion that ended the moment the Assyrian military appeared and the Greek raiders “got into their boats and [disappeared] into the middle of the sea.”<sup>58</sup> Parker adds the following noteworthy comment, “The knowledge of exactly who these raiders were, and the fact that this relatively minor incident was being reported directly to the [Assyrian] king, implies that this was not the first time [governing administrator] Qurdi-Assur-lamur had had trouble with Ionian pirates.”<sup>59</sup> The implication being that Greek pirate raids were nothing new to this Assyrian-controlled Phoenician city.

The goal of the Greek pirates’ intermittent raids on Assyrian-controlled Phoenician cities was to acquire booty, which could come in the form of slaves. Similar accounts appear in Greek epic poetry. Twice Homer describes sea-going Phoenician slave traders interacting with Greeks in his *Iliad*.<sup>60</sup> And the *Homeric Hymns* recount how the god Dionysus, while walking the beach in human form, was taken by pirates as booty, to be sold for a ransom.<sup>61</sup>

### **The Eponymous Memory of a Mesopotamian Magician Taken “Hostage”**

The Near Eastern, Greek, and Roman custom whereby hostages were captured and sold or conscripted into the services of foreign political regimes may shed all new light on the identity of Homer. The Greek word *Homēr* means “Hostage.”<sup>62</sup> And Zenodotus of Mallos (second or first century BC) maintained that he was a Chaldean, that is, a Babylonian.<sup>63</sup> In summarizing the growing scholarly consensus on Homer, Martin West postulates “that ‘Homer’ was not the name of a historical poet but the fictitious or constructed name ... there was no original Homer, the *Homeridai* were not named after a person, but, not knowing any better, they invented a Homer as their ancestor or founder ...”<sup>64</sup>

In a fictional interview with *Homēr* the second century Syrian satirist Lucian declares that the epic poet was a Babylonian:

Lucian: “Above all,” said I, “where do you [i.e., *Homēr*] come from?”

*Homēr*: “... As a matter of fact, I am a Babylonian, and among my fellow-countrymen my name was not *Homēr* but *Tigranes*. Later on, when I was a hostage (*homēr*) among the Greeks, I changed my name”<sup>65</sup>

If this imagined dialogue retains a fragment of historicity, then it attests to the memory of a Babylonian scholar who had been taken “hostage” (*homēr*), the act serving as the eponym for

the father of Greek epic poetry. A Babylonian *ummânu* “scholar-magician” such as this would have encyclopedic knowledge of the Mesopotamian constellations, and would have also been indoctrinated to believe that the constellations depicted hallowed “writing” that imparted revelations via the conduit of wordplay.

### **Cultural Contact between Mesopotamia and Greece**

The archaeological record supports the possibility that a Mesopotamian *ummânu* “scholar-magician” had been taken hostage by the Greeks, where he presumably sat in colloquies with indigenous Hellenic astronomer-poets. Artifact inventories indicate that by the second half of the eighth century BC—contemporaneous with Homer and Hesiod—Greeks had established amicable trading communities on the costal Syrian sites of Al-Mina, Al-Basit, and Tell Sukas.<sup>66</sup>

Pertinent to the current paper is Al-Mina, Syria. There, Greeks from the Aegean isle of Euboea had established a thriving two-way trade among a population that consisted of Near Easterners and Greeks.<sup>67</sup> Active eighth century BC trade between Al-Mina and Euboea is intriguing because it indicates amicable relations between a city in coastal Syria—which was under the political control of Assyria<sup>68</sup>—and a Greek island where Hesiod was present. In fact, it was in Euboea that Hesiod won a handled tripod as a prize for a song he performed at the burial ceremony of King Amphidamas.<sup>69</sup> Walcot notes that Euboean Greeks “... seem to have been extremely active here [i.e., Al-Mina] during the eight century BC, for part of which time the Assyrians were in control of the region. Al-Mina is an obvious place for the Greeks to have acquired a knowledge of *Enuma Elish* or any other work of Babylonian literature ...”<sup>70</sup>

And acquiring knowledge of *Enuma Elish* implies the presence of scholars fluent in the Akkadian and Greek languages as well as the religious ideologies of both cultures. More importantly, it implies the presence of Mesopotamian astronomer-magicians fluent in cuneiform and indoctrinated with the arcane belief that the constellations depicted divine “writing” that imparted sacred wisdom through wordplay.

Further evidence suggests that Euboean Greeks joined Assyrian forces as mercenaries at Al-Mina.<sup>71</sup> And around 743 BC Assyrian king Tiglath-pileser III forcibly gained control of Syria and Cyprus, and it was his officer that later reported the maritime raid by Greeks off the

Phoenician coast, an encounter discussed by Parker, above.<sup>72</sup> In circa 711 BC Assyrian king Sargon II—who is thought to have had *lumāši*-writing inscribed in his palace—quashed the rebellion of a Greek at the Phoenician city of Ashdod.<sup>73</sup> Finally, around roughly 695 BC Sargon II's successor, Sennacherib, had Greek sailors working for him on the Tigris River in the Assyrian city of Nineveh.<sup>74</sup>

The archaeological and literary record indicates that in Homer and Hesiod's time Greeks and Assyrians had established intermittent commercial-based alliances and also confronted each other in military skirmishes. Ironically, Walter Burkert reports that the military conflicts helped to amplify the Greek-Assyrian mercantile relationships, "On the whole the numerous violent incidents and catastrophes did not destroy East-West connections, but rather intensified them, perhaps because now streams of refugees were mingling with the traders."<sup>75</sup>

Any one of the aforementioned military conflicts, pirate raids, or trading expeditions between Mesopotamians, Phoenicians, and Greeks could have resulted in a Babylonian or Assyrian "writer-astronomer" being captured and sold to a Hellenic overlord, a vestige of the transaction found in the name *Homēr*: "Hostage." At which time the Mesopotamian concept of the starry sky as hallowed "writing" that imparted divine messages through the medium of wordplay would have passed into Hellenic thought.

Burkert argues for direct contact in the eight century BC:

Akkadian cuneiform side by side with Aramaic, Phoenician, and Greek alphabetic script produces a continuum of written culture in the eighth century [BC] which stretches from the Euphrates to Italy. Cuneiform tablets are found not only as far as Syria but also on Cyprus and Tarsos, where the Greeks were definitely present... which proves that Greek literary practice is ultimately dependent upon Mesopotamia.<sup>76</sup>

West also makes an unequivocal argument for direct colloquies between Greek and Mesopotamian scholars in the eight century BC:

But how was this influence transmitted from one poetic tradition to another across the language barrier? ... I see no alternative to the assumption of a certain number of bilingual poets, probably easterners who had settled in Greece and learned to

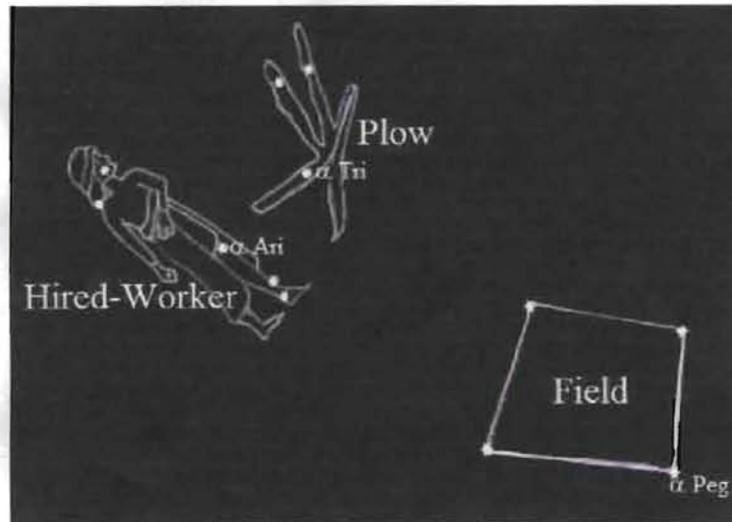
compose epic in the Greek manner ... In other instances we seem to detect close relationships between Homeric or Hesiodic passages and other 'classic' Babylonian texts such as *Atrahasis* and *Enūma Eliš*. To account for them we must surely postulate poets educated in the Levant who subsequently became Hellenized and practiced in Greece.<sup>77</sup>

In sum, the archaeological and textual record implies face-to-face contact between Mesopotamian and Greek scholars throughout the eight century BC, a circumstance that has compelled three doyens of Mesopotamian-Greek cultural transmission (Peter Walcot, Walter Burkert, Martin West) to argue that such direct encounters unequivocally occurred. The ancient record specifies how this transmission took place: a Babylonian *ummānu*/"scholar-magician" had been taken "hostage" by the ruler of some Hellenic kingdom. A vestige of the encounter found in the eponymous title of the father of Greek epic poetry, *Homēr*/"Hostage." At which point in time the Mesopotamian language and constellation names were transmitted into the Hellenic cultural sphere along with the secret conviction that the astral sky was a hallowed "text" that imparted revelation through wordplay; with the manner in which astronomer-scholars were expected to utilize wordplay being exemplified in *Enuma Elish* VII.

Conceptualizing the constellations as a hallowed "writing" that imparted divine communiqué through wordplay in the manner illustrated in *Enuma Elish* provides the cipher that allows us to discern the impetus behind Aries' astronomical appearance as a "Ram"; it also elucidates why Greek mythographers conceptualized Aries as a golden-fleeced flying Ram that transported Phrixus and Helle, the latter youth falling into the sea.

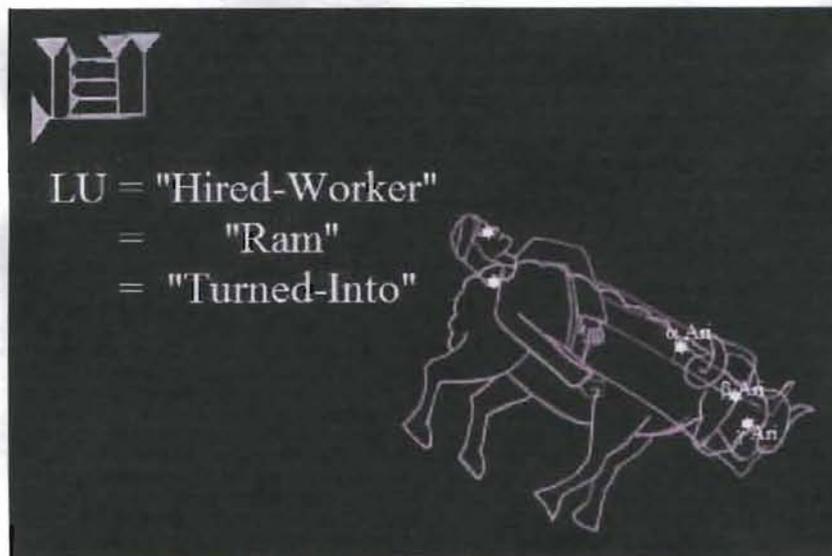
### **"The Hired-Worker Turns-Into the Ram"**

Aries' astronomical appearance in the Hellenic sky appears to be the product of a cluster of puns encrypted in the cuneiform titles for this constellation. Since the early days of cuneiform studies scholars have suspected that a pun served as the inspiration behind Aries, the zodiacal Ram. In Mesopotamia Aries' title was LU<sub>2</sub> HUN-GA<sub>2</sub>, literally, "Man, Hired-Worker," which was written *Agru* in the Akkadian language of the Babylonians and Assyrians.<sup>78</sup> The "Hired-Worker" stood next to his tool, the "Plow," APIN (Triangulum), and the "Field," IKU (Pegasus Square) he was destined to till (Fig. 3).<sup>79</sup>



**Figure 3: The Hired-Worker stood beside his Plow and the Field he was destined to till. (sketch by Ashley McCurdy)**

During the first millennium BC, Babylonian-Assyrian astronomers frequently abbreviated titles, a practice that was applied to Aries.<sup>80</sup> When Mesopotamian astrologers attempted to abbreviate LU<sub>2</sub> 𒄩UN-GA<sub>2</sub>, their goal was to shorten it to the first cuneiform sign in this title: LU<sub>2</sub>, “Man.” However, the Sumerian logogram LU<sub>2</sub> had no phonetic value in the Akkadian language of the Babylonians and Assyrians, and was used only as a determinative, i.e., noun classifier, for male professions.<sup>81</sup> This elucidates why it was affixed to the front of the title 𒄩UN-GA<sub>2</sub>, the “hired-worker,”—the latter defined a specific type of profession, in this case a “hired laborer” who cultivated the agricultural fields of that land. Because LU<sub>2</sub> was a “silent” cuneiform sign it could not function as the abbreviation for LU<sub>2</sub> 𒄩UN-GA<sub>2</sub>. For this reason Mesopotamian astronomers substituted a homophonous logogram, LU, as the abbreviation for LU<sub>2</sub> 𒄩UN-GA<sub>2</sub>.<sup>82</sup> The logogram LU imbued this constellation in double entendre because it could also be read UDU, which represented the Akkadian word *immeru*, “ram.”<sup>83</sup> Scholars infer that this pun was the inspiration behind the reconfiguration of the Babylonian-Assyrian “Hired-Worker” into the zodiacal “Ram” (Fig. 4).<sup>84</sup>



**Figure 4: Wordplay embedded in the various readings for LU imparted the words: “the Hired-Worker, Turned-Into, the Ram.” (sketch by Ashely McCurdy)**

What must be underscored here is that the substitution of LU/“Ram” for LU<sub>2</sub>/“Man” displays an extensive knowledge of the nuances in Akkadian cuneiform grammar; which was something all Mesopotamian astronomers possessed, a point evinced by their title: *tupšarru* “writer.”

Further punning intimates the impetus behind the transformation of the “Hired-Worker” into a LU/“Ram.” All Mesopotamian astronomers were familiar with the Sumerian-Akkadian dictionary that list *agri* as the Akkadian cuneiform spelling for “hired-worker.”<sup>85</sup> In light of the fact that cuneiform *g* was typically rendered *k* in Greek,<sup>86</sup> a Greek astronomer-poet fluent in cuneiform would have surely noticed that when *agri* is translated into Greek it yields *akri*, a term that—when uttered—sounds like *ho Kri* (ὁ Κρίός) the Greek root spelling for “the Ram” (note that the *-os/-ός* suffix was not part of the root but served merely as the nominative case ending<sup>87</sup>). Furthermore, a Greek astronomer-poet fluent in cuneiform would have surely known that SI<sub>6</sub> was an alternate reading for LU, thereby forming a homophone with SI, the Sumerian equivalent to the Akkadian verb *ewû*, “to turn into, become.”<sup>88</sup>

Hence, in Mesopotamia the stars of Aries depicted a “Hired-Worker” whose abbreviated title, LU, also meant “Ram.” One of the approved Akkadian spellings for this constellation, *Agri*, rendered *Akri* in Greek, a homophone with *ho Kri*, “the Ram.” An alternate reading for the logogram LU/“Ram” was SI<sub>6</sub>, which phonetically imparted the Sumerian logogram that meant

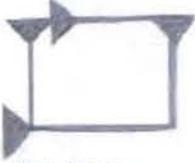
*ewû* in Akkadian, “to become, change into.” All told, *lumāšī*-writing puns yield the words: “the Hired-Worker, Turns Into, *Akri*,”—with *Akri* sounding like the Greek *ho Kri* / “the Ram.”<sup>89</sup> And “the Ram” is precisely what the Mesopotamian Hired-Worker transfigures into in Hellenic astronomy (Fig. 4).

### “The Hired-Worker Turns-Into the Golden-Fleeced, Flying Ram”

Yet the “envelope” of meanings embedded in the cuneiform titles for Aries also bears a direct correlate to the Ram’s mythical attributes. At the outset of this article we noted that Hesiod conceptualized Aries as a “Ram”/*Krios* that possessed a “golden fleece” (*chrysēn doran*), the ability to fly, and was indeed the golden-fleeced, flying Ram that transported the siblings Phrixus and Helle; with Helle falling into the sea during the journey.<sup>90</sup> Moreover, Eratosthenes affirms that after the journey the Ram shed its golden fleece and flew up to the stars as Aries.<sup>91</sup> Thus the latter myth was the source of its *katasterism*, or “placing among the stars.”

Since Eratosthenes claimed that he learned the story from Hesiod (circa 700 BC), we can presume it was known to the latter astronomer-poet by the end of the eighth century BC. Recall that Hesiod was also familiar with *Enuma Elish* tablet VII, and used it as reference for his writings; implying that he was well apprised that cuneiform puns could divulge numinous wisdom. We will now see that wordplay enciphered in Aries’ cuneiform titles correlates with this golden-fleeced Ram’s mythical attributes and fight with Phrixus and Helle.

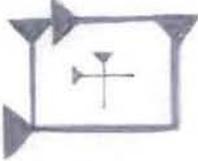
The first two correlations can be found encrypted in Aries’ Mesopotamian identity as the “Hired-Worker.” We have seen that a common logogram for the “Hired-Worker” was LU (Fig. 4). During the Neo-Assyrian period (1000-600 BC) LU was often inscribed in various ways, one of these forms shown in Fig. 5.<sup>92</sup> Thus, in this inscription, LU appears to be comprised of the logograms LAGAB and BAR. Sumerian-Akkadian dictionaries confirm that LAGAB was the logogram that represented the Akkadian word *šā'u*, “to fly about”,<sup>93</sup> and BAR meant “fleece.”<sup>94</sup> Thus LU embodied the words “flying about” and “fleece”—attributes that correlate to Aries appearance in Greek astronomy and mythography (Fig. 5).



LAGAB =  
šá'u, "to fly about"



BAR =  
"fleece"



LU =  
"flying about, fleece"

**Figure 5: A common form of logogram for Aries, LU, embodied the words "flying" and "fleece." (sketch by Ashley McCurdy)**

The fleece's golden substance is found in the other abbreviated logogram used for the "Hired-Worker" constellation: 𒄠UN.<sup>95</sup> The 𒄠UN sign could be read UŠ<sub>4</sub>, a homophone with UŠ<sub>2</sub>, "gold."<sup>96</sup> Finally, we have already seen that an alternate reading for LU was SI<sub>6</sub>, which forged a direct homophone with SI, the logogram that represented Akkadian *ewû*, "to turn into, become." When the aforementioned verbs are conjugated for coherence as exemplified in *Enuma Elish* tablet seven, polysemous readings on the cuneiform titles for Aries yield: "the Hired-Worker, Turns-Into, a Flying, Gold, Fleece, Ram"; direct correlates with Aries' mythical identity as a flying, golden-fleeced Ram (Fig. 6).



**Figure 6: Puns encrypted in Aries cuneiform identity as a “Hired-Worker” divulged the words: “the Hired-Worker, Turns-Into, a Gold, Fleece, Flying, Ram”; attributes that were applied to Aries by Greek astronomer-poets and mythographers.**

And in Aries’ cuneiform logogram, LU, we find a direct correlate to the Greek name *Phrixos* (Φρίξος), which meant, “Curly.”<sup>97</sup> We have repeatedly seen that LU was also read SI<sub>6</sub>, and therefore forged a homophone with SI. And one of the Sumerian-Akkadian dictionaries lists SI as the logogram for the verb *suhhuru*, “to turn around.”<sup>98</sup> And *suhhuru* (“turning-around”) makes a homonym (i.e., words with the same spelling and pronunciation but different meanings) with *suhuru*, “curly.”<sup>99</sup> Hence, the cuneiform equivalent to *Phrixos*/“Curly” was phonetically encrypted in the cuneiform logogram for Aries: SI<sub>6</sub>.

The author tentatively proffers two additional puns that correlate with the exploit the flying, golden-fleeced Ram had performed, while simultaneously imparting the heretofore unknown etymology for the name Helle. Hesiod tells us that Aries “transported” (*diakomisas*) Phrixus and Helle.<sup>100</sup> We see the cuneiform equivalent in Aries’ cuneiform title. Recall that a Greek astronomer-poet fluent in cuneiform would have known that the logogram for the “Hired-Worker” of Aries, LU, was a substitute for the intended LU<sub>2</sub>, “Man.” And LU<sub>2</sub> represented the Akkadian word *Amīlu*/“Man.”<sup>101</sup> The Sumerian-Akkadian dictionaries indicate that many different Sumerian logograms were used to represent *Amīlu*/“Man,” one being: I<sub>3</sub>-LI<sub>2</sub>.<sup>102</sup> And I<sub>3</sub>-LI<sub>2</sub> forms a homophone with ILI<sub>2</sub>, the logogram that represented the Akkadian verb *nāšū*, “to transport, carry.”<sup>103</sup> Hence LU, the logogram for Aries, represented the word “Man,” and one of

the logograms for “Man” (I<sub>3</sub>-LI<sub>2</sub>) phonetically rendered ILI<sub>2</sub>, “transporting, carrying”—the cuneiform equivalent to Hesiod’s “transported”/*diakomisas*.

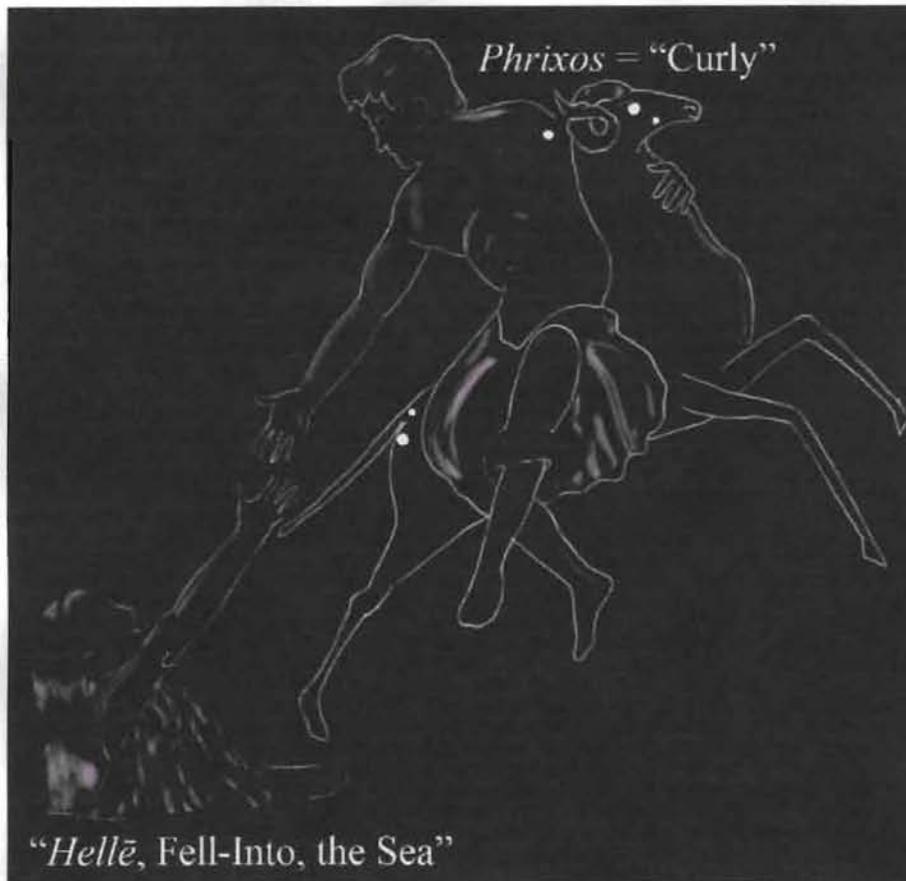
And in I<sub>3</sub>-LI<sub>2</sub> we find what appears to be the heretofore unknown etymology for Helle. Cuneiform-to-Greek inscriptions indicate that cuneiform short *i* is sometimes rendered as Greek *e/ε*;<sup>104</sup> while cuneiform long *ī*, is sometimes rendered as Greek *ē/η*.<sup>105</sup> If a Greek astronomer fluent in Akkadian saw the second *i* vowel in I<sub>3</sub>-LI<sub>2</sub> as an open syllable long *ī*, which is a practice frequently used in the Sumerian-Akkadian dictionaries,<sup>106</sup> then it is possible to render I<sub>3</sub>-LI<sub>2</sub> into Greek as *elē*, a homophone with *Hellē* (Ἑλλή). Noteworthy is that the *H* in the latter name was an aspirate, i.e., rough breathing, and not part of the root spelling. Here the comments of Walter Burkert become pertinent:

“Greek language ... absolutely rejects the use of unadapted foreign words; they are accepted only in perfectly assimilated form as to phonetics and inflexion... They imitate and go into hiding, adapting themselves to the roots and suffixes of native Greek.”<sup>107</sup>

In light of Burkert’s remark, the author contends that *Hellē* (Ἑλλή) is the “Hellenized” form of the cuneiform I<sub>3</sub>-LI<sub>2</sub>, a term that meant precisely what the logogram for Aries meant, “Man.” Hence, the meanings “Transport” and the “*Hellē*” can be traced to the word “Man,” which is what the logogram for Aries, LU, represented.

Greek mythology confirms that *Hellē* “fell into the sea” at the spot to which the name Hellespont (“Sea of Helle”) was given. The corresponding cuneiform verb is seen in the other logogram for Aries, 𒀭UN, which was also read DUR<sub>2</sub>, and represented the Akkadian verb *napalsuhu*, “to fall,” and *ina*, “into.”<sup>108</sup> And since Aries was a constellation its various titles had the celestial determinative MUL affixed to it. MUL can be read NAB<sub>2</sub>, which phonetically renders the Sumerian NAB, “sea.”<sup>109</sup>

Hence, polysemy embedded in the readings for Aries’ titles yield the words: “Flying, Gold, Fleece, Ram, Transporting, Curly/*Phrixos*, *Hellē*, Fell, Into, the Sea”—terms that correlate with the main characters and theme from the “Golden Fleece” myth.



**Figure 7: Wordplay enciphered in the cuneiform terms for Aries imparted the words: *Phrixos*, “Curly,” as well as “*Hellē*, Fell, Into, the Sea.” These words reappear in Aries’ mythical journey with Phrixus and Helle. (sketch by Ashley McCurdy)**

These words harmonize with the marquee role the zodiacal Ram played in Greek mythology: as the flying, golden-fleeced Ram that carried Phrixus and *Hellē*, the latter tragically “falling into the sea” during the flight.

### **Conclusion**

In Mesopotamia, Aries went by the title “Hired-Worker.” The aforementioned data has shown that wordplay encrypted in the various cuneiform spellings for this constellation (LU<sub>2</sub> 𒄩UN-GA<sub>2</sub>, *Agri*, *Agri*, LU, 𒄩UN) produced the words: “the Hired-Worker, Turns-Into, a Gold, Fleece, Flying, Ram,”—terms that correlate with Greek astronomer-poets’ perception of Aries as the embodiment of the mythical golden-fleeced, flying Ram. Additional puns yielded:

“Transporting, Curly/*Phrixos*, *Hellē*, Fell, Into, the Sea”; words that correspond to the details and action that took place on the Ram’s flight with Phrixus and Helle.

Moreover, textual evidence indicates that Mesopotamian astronomers viewed the starry sky and its constellations as a divine “text” that imparted revelation through the conduit of wordplay. Archaeological and literary evidence implies that, sometime during the eighth century BC, a Mesopotamian astronomer-magician indoctrinated with the aforementioned celestial arcana was taken “hostage” and sold to a Hellenic overlord. The latter idea supported by the numerous literary references to pirate raids in which hostages were taken with the intent of being sold for profit. A vestige of this practice seems to be present in the in the name *Homēr*, “Hostage.” Zenodotus of Mallos (second or first century BC) declared that *Homēr* was a Babylonian. And the second century AD Syrian author Lucian maintained that the name of the father of Greek epic poetry was eponymous, emphasizing that the name *Homēr* meant “Hostage” because he was a Babylonian magician-astronomer that had changed his name after being taken “hostage”/*homēr* by a Greek satrap.

Hence, the Hellenic cultural memory testifies to the belief in a Mesopotamian astronomer-magician that had been taken “hostage” by a Greek ruler. A “Hostage”-astronomer such as this would have the ability to disclose the aforementioned Mesopotamian celestial arcana to his Greek counterparts; a remnant of this transmission of wisdom being encoded in the eponymous name *Homēr*: “Hostage.” Such bilingual astronomer-poets would have the ability to decipher the cuneiform puns encrypted in the stars of Aries; sacred wordplay imparting that the Mesopotamian “Hired-Worker turned-into the golden, fleeced flying Ram” which “transported Phrixus” and “Helle,” the latter “falling into the sea.”

Hesiod, or someone collaborating with him, detected these sacred, celestial, cuneiform puns, then translated them into Greek. Vestiges of this transmission remain evident in Aries’ identification as the flying, golden-fleeced Ram that carried Phrixus and Helle, the latter girl falling into the sea.

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<sup>1</sup> Apollodorus *The Library* trans. James George Frazer I (Cambridge, Massachusetts: Harvard University Press; London: William Heinemann LTD, 1967) pp. 74-77.

<sup>2</sup> Ibid., brackets inserted; For a list of authors that recorded this myth see: Ibid. pp. 74-75, n. 1; Aaron J. Atsma *Theio Project* (2000-2017) <http://www.theoi.com/Theoi/KriosKhrvsomallos.html> (Accessed December 15, 2016); Hubert Cancik and Helmuth Schneider, eds. *Brill’s New Pauly Encyclopedia of the Ancient World* vol. 11 (Boston, Leiden: Brill, 2005) p. 193.

- <sup>3</sup> Hesiod *The Homeric Hymns and Homericica*, trans. Hugh G. Evelyn-White (Cambridge, Massachusetts, USA: Harvard University Press; London, England: William Heinemann LTD, 1977) pp. 176-177; c.f. Theony Condos *Star Myths of the Greeks and Romans: a Sourcebook* (Phanes Press, 1997) pp. 43-47; c.f. Mary Grant *The Myths of Hyginus* (Lawrence, Kansas: University of Kansas Publications, 1960) pp. 208-210.
- <sup>4</sup> Condos *Star Myths* p. 43; c.f. Grant *Myths of Hyginus* *ibid.*
- <sup>5</sup> Brill's *New Pauly Encyclopedia* 7, pp. 33-34; Condos *Star Myths* *passim*; George Liddell and Robert Scott *An Intermediate Greek-English Lexicon; Founded upon the Seventh Edition of Liddell and Scott's Greek-English Lexicon* (Oxford, England: Clarendon Press, 1997) p. 914.
- <sup>6</sup> W. G. Lambert "A Late Assyrian Catalogue of Literary and Scholarly Texts" in *Kramer Anniversary Volume; Cuneiform Studies in Honor of Samuel Noah Kramer* ed. Barry L. Eichler (Kevelaer, Germany: Verlag Butzon & Bercker 1976) pp. 313-318; Francesca Rochberg *The Heavenly Writing; Divination, Horoscopy, and Astronomy in Mesopotamian Culture* (New York, USA: Cambridge University Press, 2004) p. 211.
- <sup>7</sup> E. C. Krupp "Night Gallery: The Function, Origin, and Evolution of the Constellations" *Archaeoastronomy* (2000) XV pp. 43-63; c.f. John H. Rogers 1998. "Origin of the Ancient Constellations: I. the Mesopotamian Traditions." *Journal of the British Astronomical Association*, 108, 1, (1998) pp. 9-28.
- <sup>8</sup> Krupp "Night Gallery" pp. 44, 47-48.
- <sup>9</sup> Erica Reiner and David Pingree *Babylonian Planetary Omens 2: Enūma Anu Enlil, Tablets 50-51*, (Malibu, USA: Undena Publications, 1981) pp. 17-18, 42-43; Hermann Hunger and David Pingree *MUL-APIN, an Astronomical Compendium in Cuneiform* (Horn, Austria: Verlag Ferdinand Berger & Söhne Gesellschaft M. B. H., 1989) pp. 40-47, 72-77, 88-96, 139-154.
- <sup>10</sup> David Brown "Mesopotamian Planetary Astronomy-Astrology" *Cuneiform Monographs 18* (Groningen, Netherlands: Styx Publications 2000) p. 33; *The Assyrian Dictionary of the Oriental Institute of the University of Chicago* vols. 1-21, eds. Martha T. Roth, et. al. (Chicago, Illinois, USA & Glückstadt, Germany: The Oriental Institute & J. J. Augustin Verlag Buchshandlung, 1956-2010) vol. 20, p. 108.
- <sup>11</sup> Brown *ibid.*; R. Campbell Thompson *The Reports of the Magicians and Astrologers of Nineveh and Babylon*, vols. 1-2 (London, England: Luzac and Co., 1900, reprinted in New York, USA: AMS Press, 1977) vol. 2, pp. xiii-xxix.
- <sup>12</sup> Tamsyn Barton *Ancient Astrology* (London, England & New York: Routledge, 1994) p. 5; Francesca Rochberg-Halton "Aspects of Babylonian Celestial Divination: The Lunar Eclipse Tablets of Enūma Anu Enlil" *Archiv für Orientforschung* (Horn, Austria: Verlag Ferdinand Berger & Sohne Gesellschaft M. B. H., 1988) p. 5.
- <sup>13</sup> Brown "Mesopotamian Planetary Astronomy-Astrology" pp. 33-36; Rochberg *Heavenly Writing* pp. 41, 45, 71, 219; *Chicago Assyrian Dictionary* vol. 19, pp. 152-153.
- <sup>14</sup> Willie Hartner "The Earliest History of the Constellations in the Near East and the Motif of the Lion-Bull Combat" *Journal of Near Eastern Studies* vol. 24 (1965) p. 2; P. Felix Gössmann "Planetarium Babylonicum, oder Die Sumerisch-Babylonischen Stern-Namen" *Sumerisches Lexikon* IV, Bd.2, ed. P. A. Deimel (Rom: Verlag des Papstl. Bibelinstituts, 1950) *passim*.
- <sup>15</sup> Lambert "A Late Assyrian Catalogue" pp. 313-318; Rochberg *Heavenly Writing* p. 209-236.
- <sup>16</sup> *Ibid.*
- <sup>17</sup> John Huehnergard *A Grammar of Akkadian* (Atlanta, Georgia, USA: Scholars Press, 1997) pp. 107-111.
- <sup>18</sup> *Chicago Assyrian Dictionary* vol. 8, pp. 45-46, *kakkabu*, lexical section; *Chicago Assyrian Dictionary* vol. 17/pt.3, p. 144, *šīrtum*, lexical section, *Chicago Assyrian Dictionary* vol. 17/pt.3, p. 144-145, *šīru*, lexical section.
- <sup>19</sup> Wolfram von Soden *Akkadisches Handwörterbuch* vol. III (Wiesbaden, Germany: Otto Harrassowitz, 1981) p. 1253, *šīru*, lexical section.
- <sup>20</sup> Rykle Borger *Mesopotamisches Zeichenlexikon* (Münster, Germany: Ugarit-Verlag, 2004) p. 302, no. 247.
- <sup>21</sup> Rochberg-Halton "Aspects of Babylonian Celestial Divination" p. 15, n. 54.
- <sup>22</sup> *Chicago Assyrian Dictionary* vol. 17/pt.3, p. 144, 2; Rochberg *Heavenly Writing* pp. 64, 163, 294, 299.
- <sup>23</sup> *Chicago Assyrian Dictionary* vol. 11/pt.1, p. 22, *nabātu*, lexical section.
- <sup>24</sup> Huehnergard *Grammar of Akkadian*, p. 70; John Halloran *Sumerian Lexicon 3.0* (2006) <http://www.sumerian.org/sumerlex.htm> p. 1 (Accessed: November 20, 2008).
- <sup>25</sup> *The Electronic Pennsylvania Sumerian Dictionary* eds. Åke W. Sjöberg and Erle Leichty: <http://psd.museum.upenn.edu/epsd/nepsd-frame.html>, mul<sub>2</sub>. Henceforth abbreviated: *ePSD*.
- <sup>26</sup> *ePSD*: mul<sub>3</sub>.
- <sup>27</sup> *Chicago Assyrian Dictionary* vol. 11/pt.1, p. 22, *nabātu*, lexical section; *Chicago Assyrian Dictionary* vol. 16, p. 116, *šātu*; *Chicago Assyrian Dictionary* vol. 7, p. 144, *inbu*, lexical section; *ePSD*: ul.
- <sup>28</sup> *Chicago Assyrian Dictionary* vol. 8, p. 46, *kakkabu*, lexical section; Borger *Mesopotamisches Zeichenlexikon* p. 290, no. 174.

- <sup>29</sup> Victor A. Hurowitz "Alliterative Allusions, Rebus Writing, and Paronomastic Punishment: Some Aspects of Word Play in Akkadian Literature" in *Puns and Pundits; Word Play in the Hebrew Bible and Ancient Near Eastern Literature* ed. Scott B. Noegel (Bethesda, Maryland, USA: CDL Press, 2000) p. 66, n. 9.
- <sup>30</sup> Michael Roaf and Annette Zgoll "Assyrian Astroglyphs: Lord Aberdeen's Black Stone and the Prisms of Esarhaddon" *Zeitschrift für Assyriologie* (2001) 91, p. 266; Irving L. Finkel and Julian E. Reade "Assyrian Hieroglyphs" *Zeitschrift für Assyriologie und vorderasiatische Archäologie* (1996) 86, pp. 244-265; Julian E. Reade "Assyrian Architectural Decoration: Techniques and Subject-Matter" *Baghdader Mitteilungen* (1979) 10, pp. 35-46; *Chicago Assyrian Dictionary* vol. 9, p. 245, *lumāšu*.
- <sup>31</sup> Scott Noegel *Nocturnal Ciphers: The Allusive Language of Dreams in the Ancient Near East* (New Haven, Connecticut, USA: American Oriental Society, 2007) pp. 37-38, n. 128.
- <sup>32</sup> Roaf & Zgoll "Assyrian Astroglyphs" pp. 291-292.
- <sup>33</sup> *ibid.*, p. 267.
- <sup>34</sup> A. R. George *The Babylonian Gilgamesh Epic; Introduction, Critical Edition and Cuneiform Texts* (Oxford, England: Oxford University Press, 2003) I, pp. 86-87.
- <sup>35</sup> Scott Noegel in Nancy Joseph, ed., "Why Freud Should Credit Mesopotamia," *A & S Perspectives*, Winter/Spring 2002, <http://www.artsci.washington.edu/news/WinterSpring02/Noegel.htm>, italics added (Accessed April 21, 2006; link no longer available).
- <sup>36</sup> Theodor H. Gaster "Myth and Story" *Numen* (1954) 1, Fasc. 3, p. 206.
- <sup>37</sup> Alasdair Livingstone *Mystical and Mythological Explanatory Works of Assyrian and Babylonian Scholars* (Oxford, England: Clarendon Press, 1986) pp. 1-4, *passim*; Rochberg *Heavenly Writing* pp. 209-236; Noegel *Nocturnal Ciphers* pp. 37-38, 70-76.
- <sup>38</sup> George *Babylonian Gilgamesh Epic* I, pp. 86-87, italics added.
- <sup>39</sup> Livingstone *Mystical and Mythological* p. 1; c.f.: Rochberg *Heavenly Writing* pp. 209-236; Noegel *Nocturnal Ciphers* pp. 37-38, 70-76
- <sup>40</sup> Jean Bottéro "Les Noms de Marduk, L'Écriture et la "Logique" en Mésopotamie Ancienne" *Memoirs of the Connecticut AChicago Assyrian Dictionaryemy of Arts & Sciences; Essays on the Ancient Near East in Memory of Joel Jacob Finkelstein* vol. XIX ed. Maria de Jong Ellis (Archon Books, 1977) pp. 5-28; c.f., Stephanie Dalley, trans., *Myths from Mesopotamia* (Oxford, New York. Oxford University Press, 1989) pp. 276-277, n. 47.
- <sup>41</sup> Lambert "A Late Assyrian Catalogue" pp. 313-318.
- <sup>42</sup> Wilfram von Soden "Neue Bruchstücke zur sechsten und siebenten Tafel des Weltschöpfungsepos Enūma eliš" *Zeitschrift für Assyriologie und vorderasiatische Archäologie* (1942) 47, pp. 16-17; Wayne Horowitz *Mesopotamian Cosmic Geography* (Winona Lake, Indiana, USA: Eisenbrauns, 2011) pp. 114-115.
- <sup>43</sup> Gössmann *Sumerisches Lexikon* IV, no. 260.
- <sup>44</sup> *Ibid.* no. 311; Hunger and Pingree *MUL-APIN* p. 28.
- <sup>45</sup> Bottéro "Les Noms de Marduk" p. 20.
- <sup>46</sup> Samuel Noah Kramer *The Sumerians; Their History, Culture, and Character* (Chicago, Illinois, USA: University of Chicago Press, 1963) p. 303 and Fig. 6.
- <sup>47</sup> Bottéro "Les Noms de Marduk" p. 12.
- <sup>48</sup> Bottéro *ibid.*; Borger *Mesopotamisches Zeichenlexikon* p. 320, no. 358.
- <sup>49</sup> Bottéro "Les Noms de Marduk" pp. 17-18.
- <sup>50</sup> *Ibid.* p. 12; *Chicago Assyrian Dictionary* 17/pt.1, p. 1, *ša*, lexical section; *Chicago Assyrian Dictionary* 7, pp. 141-142, *ina*, lexical section
- <sup>51</sup> Bottéro "Les Noms de Marduk" pp. 12, 16-17; *Chicago Assyrian Dictionary* 1/pt. 2, p. 202, *apû*, 5.
- <sup>52</sup> S. Hornblower, A. Spawforth, E. Eidinow eds. *The Oxford Classical Dictionary* (Oxford, England: Oxford University Press, 2011) p. 700.
- <sup>53</sup> Peter Walcot *Hesiod and the Near East* (Wales, England: University of Wales Press, 1966) p. 129.
- <sup>54</sup> Brown "Mesopotamian Planetary Astronomy-Astrology" pp. 33-34.
- <sup>55</sup> The Chaldeans were in essence semi-nomadic Akkadian-speaking peoples who did not pledge their allegiance to centralized government under the ruler of Babylon, but instead seized political control of Babylonia when centralized political control in the capital city of Babylon had become weak. See: Joan Oates *Babylon* (Thames & Hudson, 1986) pp. 111-114.
- <sup>56</sup> Pliny *Natural History* vol. IX trans. H. Rackham (Cambridge, Massachusetts, USA: Harvard University Press; London, England: William Heinemann LTD, 1968) pp. 406-409.
- <sup>57</sup> M. J. Geller "The Last Wedge" *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 87 (1997) pp. 50-51.
- <sup>58</sup> Bradley J. Parker "The Earliest Known Reference to the Ionians in Cuneiform Sources" *Ancient History Bulletin* (2000) 14.3, p. 72.

- <sup>59</sup> Ibid., p. 75, brackets inserted.
- <sup>60</sup> Homer *Iliad*, vol. II, trans. A. T. Murray (Cambridge, Massachusetts, USA: Harvard University Press, 1999) pp. 56-59, 108-113.
- <sup>61</sup> Hesiod *The Homeric Hymns* pp. 428-433.
- <sup>62</sup> Robert Beekes *The Etymological Dictionary of Greek* vol. 2 (Leiden, Netherlands: Brill, 2010) p. 1067.
- <sup>63</sup> Johannes Haubold *Greece and Mesopotamia* (Cambridge, England: Cambridge University Press, 2013) pp. 24-25, 178.
- <sup>64</sup> M. L. West "Epic" *Hellenica; Selected Papers on Greek Literature and Thought* vol. 1 (Oxford, England: Oxford University Press, 2011) pp. 408, 422.
- <sup>65</sup> Lucian *Lucian* vol. I, trans. A. M. Harmon (Cambridge, Massachusetts: Harvard University Press; London, England: William Heinemann LTD, 1961) pp. 322-323.
- <sup>66</sup> Walcot *Hesiod and the Near East* pp. 104-130; Walter Burkert, *Babylon, Memphis, Persepolis: Eastern Contexts of Greek Culture* (Cambridge, Massachusetts, USA: Harvard University Press, 2004) pp. 16-20; Walter Burkert *The Orientalizing Revolution: Near Eastern Influence on Greek Culture in the Early Archaic Age* (Cambridge, Massachusetts: Harvard University Press, 1992) pp. 1-40; Glenn Markoe *The Phoenicians* (California, USA: University of California Press, 2000) pp. 36-47; John Boardman *The Greeks Overseas: Their Early Colonies and Trade* (New York, USA: Thames and Hudson, 1980) pp. 45, 1-84 passim; T. J. Dunbabin *The Greeks and Their Eastern Neighbors* (Santa Barbara, California, USA: Greenwood Press Publishers, 1979) pp. 1-43.
- <sup>67</sup> David Ridgway *The First Western Greeks* (Cambridge, England: Cambridge University Press, 1992) pp. 15, 24-25, 30, 64-66, 108-113, 147; Burkert *The Orientalizing Revolution* pp. 21-22; Boardman *The Greeks Overseas* pp. 37-46.
- <sup>68</sup> Boardman *The Greeks Overseas* p. 44.
- <sup>69</sup> Hesiod *The Homeric Hymns* pp. 50-51.
- <sup>70</sup> Walcot *Hesiod and the Near East* p. 121, brackets inserted.
- <sup>71</sup> Burkert *Babylon, Memphis, Persepolis* p. 9; R. A. Kearsley "Greeks Overseas in the 8<sup>th</sup> century BC: Euboeans, Al Mina, and Assyrian Imperialism" in *Ancient Greeks West and East* ed. G. R. Tsetschkladze (Leiden, Netherlands: Brill, 1999) pp. 109-134.
- Kearsley "Greeks Overseas in the 8<sup>th</sup> century BC" pp. 109-134; Boardman *The Greeks Overseas*, p. 42.
- <sup>72</sup> c.f. Boardman *The Greeks Overseas* p. 44.
- <sup>73</sup> Burkert *Babylon, Memphis, Persepolis* p. 9; Burkert *The Orientalizing Revolution* p. 13; Boardman *The Greeks Overseas* p. 45.
- <sup>74</sup> Boardman *The Greeks Overseas* p. 46.
- <sup>75</sup> Burkert *The Orientalizing Revolution* p. 13.
- <sup>76</sup> Ibid., pp. 31-32.
- <sup>77</sup> West "Epic" vol. 1, p. 71.
- <sup>78</sup> Gössmann *Šumerisches Lexikon* IV no. 244.
- <sup>79</sup> *ibid.*, nos. 39, 193.
- <sup>80</sup> *ibid.*, nos. 244, 237.
- <sup>81</sup> Huehnergard *Grammar of Akkadian* p. 108.
- <sup>82</sup> Gössmann *Šumerisches Lexikon* IV nos. 237, 244.
- <sup>83</sup> Borger *Mesopotamisches Zeichenlexikon* p. 428, no. 812.
- <sup>84</sup> Arthur Ungnad "Besprechungskunst und Astrologie in Babylonien" *Archiv für Orientforschung* Bd. 14. Bd. (1941-1944) p. 256, n. 37.
- <sup>85</sup> *Chicago Assyrian Dictionary* 1/pt.1, p. 151, *agru*, lexical section.
- <sup>86</sup> Geller "The Last Wedge" p. 75.
- <sup>87</sup> Liddell and Scott *Intermediate Greek-English Lexicon*, p. 451.
- <sup>88</sup> *Chicago Assyrian Dictionary* 4, p. 413, *ewû*, lexical section; von Soden *Akkadisches Handwörterbuch* I, pp. 266-267, *ewû*, lexical section; John McHugh "How Cuneiform Puns Inspired Some of the Bizarre Greek Constellations and Asterisms" *Archaeoastronomy and Ancient Technologies* vol. 4/2 (2016) pp. 80-81 ([http://aaatec.org/art/a\\_jmh1](http://aaatec.org/art/a_jmh1)).
- <sup>89</sup> McHugh *ibid.*
- <sup>90</sup> Condos *Star Myths* pp. 43-47; Hesiod *The Homeric Hymns* pp. 176-177.
- <sup>91</sup> Condos *Star Myths* pp. 43-47, 223-224; c.f., Grant *Myths of Hyginus* pp. 208-210.
- <sup>92</sup> Borger *Mesopotamisches Zeichenlexikon* p. 684, nos. 812, 813.
- <sup>93</sup> *Chicago Assyrian Dictionary* 17/pt.2: p. 243, *šá'u*, lexical section.
- <sup>94</sup> ePSD: bar; Halloran *Grammar of Akkadian* p. 39.

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<sup>95</sup> Gössmann *Sumerisches Lexikon* IV, no. 189.

<sup>96</sup> For 𒄩UN read UŠ<sub>1</sub> see: Borger *Mesopotamisches Zeichenlexikon* pp. 426-427, nos. 809, 810; For UŠ<sub>2</sub> = *ḫurāsu*, “gold,” see: *Chicago Assyrian Dictionary* 6, p. 245, *ḫurāsu*, lexical section

<sup>97</sup> K. Kerényi, *The Heroes of the Greeks* (Thames & Hudson 1951, reprinted 1985) 85; Beekes *Etymological Dictionary of Greek* 2, p. 1592.

<sup>98</sup> Huehnergard *Grammar of Akkadian* p. 517; *Chicago Assyrian Dictionary* 15, p. 37, *suḫḫuru*, 8.

<sup>99</sup> *Chicago Assyrian Dictionary* 15, p. 348.

<sup>100</sup> Hesiod *The Homeric Hymns* pp. 176-177.

<sup>101</sup> *Chicago Assyrian Dictionary* 1/pt.2, p. 48, *amīlu*.

<sup>102</sup> *Ibid.* *amīlu*, lexical section; *ePSD*: *amīlu*.

<sup>103</sup> *Chicago Assyrian Dictionary* 11/pt.2, p. 80, *nāšu*, lexical section.

<sup>104</sup> E.g., Geller “The Last Wedge,” p. 71, *lipiš* = *lephes/λεφεσ*.

<sup>105</sup> E.g., *ibid.*, p. 72, *dilū* = *dēlou/δηλου*.

<sup>106</sup> *Ibid.*, p. 69

<sup>107</sup> Burkert *The Orientalizing Revolution* p. 35.

<sup>108</sup> For 𒄩UN read DUR<sub>2</sub> see: Borger *Mesopotamisches Zeichenlexikon* pp. 426-427, no. 810; For 𒄩UN = *napalsuḫu*, “to fall,” see: *Chicago Assyrian Dictionary* vol. 11/pt. 1, p. 271, *napalsuḫu*, lexical section; For 𒄩UN = *ina*, “into,” see: *Chicago Assyrian Dictionary* 7, p. 141, *ina*, lexical section.

<sup>109</sup> For MUL read NAB<sub>2</sub> see: Borger *Mesopotamisches Zeichenlexikon* 2004, p. 506; John Halloran, personal communication (November 17, 2016); For NAB = *tāmtu*, “sea, ocean,” see: *Chicago Assyrian Dictionary* 18, p. 150, *tāmtu*, lexical section.