

How *Lumāši*, or “Constellation”-Writing Puns Produced the *Garden of Eden* Myth (Part 1)

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In the eyes of modern theologians, the Biblical story of Adam and Eve and their odyssey in the Garden of Eden remains an enigma. Anyone raised in a Jewish or Christian religious tradition can recall the gist. The Judaic deity, who goes by the name *Yhwh-Elohim*, “He Will Be-Gods,”¹ plants a garden “in *Eden*, in the east” (Gen 2:8). In the middle of the Garden he made grow fruit trees called the “Tree-of-Knowledge-of-Good-and-Evil” and a “Tree-of-Life”; produce from the former tree nourishing the eater with carnal knowledge and the latter with immortality (Gen 2:9; 3:5,7,10-13, 22). After creating the first man, named *Adam* (“Man,” *Yhwh-Elohim* finds no suitable partner among the animals in Eden (Gen 2:18-20). So he puts *Adam* to sleep, takes one of his ribs, and creates an entity whom *Adam* calls “woman” (Gen 2:21-23). Later *Adam* assigns her a proper name, “Life,”² which is rendered “Eve” in English (Gen 3:20). To avert the inevitable side-effects that would potentially occur if the first humans ate fruit from the trees of Knowledge and Life, *Yhwh-Elohim* forbids them from partaking. However, a talking serpent tricks Eve into eating from the Tree-of-Knowledge and sharing this fruit with her spouse, sustenance that makes them aware of their sexuality (Gen 2:7; 3:21-22). When *Yahweh-Elohim* discovers this transgression, he curses the two and expels them from the Garden (Gen 3:14-19, 23). Afterward the Jewish deity places *Cherubim* and the “the Flaming-Turning-Sword” east of *Eden* “to guard the way to the Tree-of-Life” (Gen 3:24).

Equally perplexing are the story's irreconcilable, geographical details. Genesis 3:8-10 confirm that the characters interact within an intimate setting, with *Adam* and *Eve* lying in earshot of their deity. Yet verse 2:10 maintains that *Eden's* four rivers pass by *Havilah*, *Cush*, and *Assur*—locations the Hebrew Bible itself identifies as Saudi Arabia, Ethiopia, and the Assyrian capital city in northern Mesopotamia—lands that span a thousand miles.³

Although modern, science-minded thinkers relegate the narrative's supernatural characters, props, and details to the genre of mythology, the ancient Israelites and Christians envisioned it as a true accounting of primordial history, with Jesus himself being genealogically traced to Adam in Luke 3:23-38.⁴ This spurs an obvious question: How did the ancient Israelites come to accept the phantasmagoric montage of preternatural characters, props, and events in the "Garden of *Eden*" narrative as unassailable truth?

The current article contends that the answer has remained hidden in plain sight since the story's composition. We will soon see that the "Garden of *Eden*" was compiled in the sixth century BC, a time when the southern Judaic kingdom of Judah had been enslaved by the Babylonians. During this timeframe Jewish scholars such as Daniel were taken hostage and indoctrinated with Mesopotamian religious arcana that included astrology. And it was during these colloquies that Mesopotamian astrologer-magicians availed "hostaged" Jewish neophytes to their most revered conviction: that the starry sky embodied "heavenly writing"—and more specifically "constellation"-writing—which divulged revelation through polysemy and wordplay.

It will be shown that the Pegasus Square, Aries, Triangulum, and Aquarius produced a sacred tableau; with puns embedded in the cuneiform constellation titles of this tableau forming a direct correlate to the characters, props, and key details reported in the "Garden of *Eden*" narrative in Genesis. The conclusion argues that "hostaged" Jewish astrologer-magicians construed these puns as numinous messages, which they then arranged into coherent grammatical units and translated into Hebrew as "The Garden of *Eden*" myth of Genesis 2:4-3:24.

To rediscover the arcane, astrological precepts upon which the Biblical "Garden of *Eden*" myth was based, it is first necessary to immerse ourselves in the cultural milieu of its authors.

The Composition Date of Genesis and Mesopotamian Origins of the “Garden of Eden”

For over a century scholars have noted that Genesis, and thus its “Garden of *Eden*” narrative, was composed within a Mesopotamian cultural milieu.⁵ More specifically, Genesis 1-11 appears to be part of a larger work that incorporates Genesis through 2 Kings, and was composed in the sixth century BC.⁶ G.I. Davies writes, “The first major comprehensive Pentateuchal narrative was composed either late in the pre-exilic times or in the Babylonian exile (7th or 6th century BCE)...”⁷ Walter Brueggemann comments, “The text [Genesis] is likely dated to the sixth century BC and addressed to exiles.”⁸

And it is intimate contacts between Jewish and Babylonian scholars during the Babylonian enslavement that exposes the esoteric, astrologically based thinking-paradigm that produced the “Garden of *Eden*” narrative.

The Hebrew Bible states that the Hebraic southern kingdom, Judah, was invaded by the armies of Babylonian King Nebuchadnezzar multiple times, and in each instance captives were taken. 2 Kings 24:14 recounts how, in 597 BC, Judaic King Jehoiachin surrendered after a military onslaught by Nebuchadnezzar, resulting in the deportation of ten-thousand Jews to Babylonia including the king and royal family, his court, craftsman, and smiths. Ezra 2:64 states that a total of forty-two-thousand-three-hundred-sixty were enslaved and exiled to Babylonia by Nebuchadnezzar II. And the prophet Isaiah proclaims the destiny of many of these elite intellectuals in 2 Kings 20:18, stating that they would “... become officials in the palace of the king of Babylon.”⁹

The fate of some of Israel and Judah’s educated elite is found in an archaic custom practiced throughout Mesopotamia. Vanquishing monarchs conscripted foreign scholars into their own entourage.¹⁰ The Book of Daniel 1:1-5 recalls how this Jewish prophet and three of his countrymen were taken into the entourage of Babylonian king Nebuchadnezzar II for three years.¹¹ In his royal court they were taught the “language and literature of the Chaldeans” until reaching the level of “scholar” who used their astute occult skills to directly advise the king.

The cuneiform title for such a “scholar” is well known: *ummānu*.¹² An *ummānu* was proficient in one, and frequently all, of the following crafts: *tupšarru*, “scribe, celestial diviner

(i.e., astrologer)”; *bārû*, “diviner (using animal entrails or oil); *āšīpu*, “exorcist, healer-seer”; *asû*, “physician”; *kalû*, “lamentation chanter.”¹³ The occult nature of these arts is more accurately reflected in the late-nineteenth and early twentieth century English translation given to *ummānu*: “magician.”¹⁴

Hence, when Daniel was conscripted into the entourage of Nebuchadnezzar II, he was taught the language of the Chaldeans, i.e., Akkadian (comprised of the dialects of Assyrian and Babylonian), and for three years was indoctrinated in the forms of occult prognostication described above.¹⁵ The Hebrew Bible confirms that Daniel had risen through the ranks to become the supervisor of all Babylonian magicians including the astrologers, “... King Nebuchadnezzar your father—your father the king, I say—appointed him [Daniel] chief of the magicians, enchanters, astrologers, and diviners” (Dan 5:11, brackets inserted).

The conscription of Daniel and his three countryman into the ranks of the Mesopotamian magicians was not an anomaly. Although these forced colloquies were probably not a commonplace events,¹⁶ the research of Jonathan Stökl implies that the sixth century BC author of Ezekiel had also undergone a formal Babylonian scholarly education like the one experienced by Daniel.¹⁷ Such intermittent conscriptions would result in small enclaves of Judaic sages edified with Mesopotamian astrological wisdom. I contend that sometime during the Babylonian exile the “Garden of *Eden*” myth’s author(s) was, like Daniel, enlisted into colloquies with Babylonian *ummānus* working under Nebuchadnezzar II or one of his successors, where he was inculcated with secret, astrological wisdom privy to only the astrologer-magician.¹⁸

And it is the arcana of the Mesopotamian astrologer-magician that exposes the esoteric, exegetical techniques used to compose the “Garden of *Eden*” story.

Reading the “Heavenly Writing” of the Stars

Most *ummānus* (“magician-scholars”) wielded an expertise in astrology. The title of the Mesopotamian “astrologer” was *tupšarru*, which literally meant, “writer, scribe,” and referred to an expert in the celestial divination series, *Enūma Anu Enlil*.¹⁹ Babylonian and Assyrian scholars were adept at reading and writing in the highly complicated cuneiform writing system, a task that included mastery of their 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.²⁰

Crucial to the current article is the fact that astrologers were also well versed grammarians who knew each of the six-hundred cuneiform signs’ names and were highly proficient in the circa 1800-1600 BC bilingual Sumerian-Akkadian “dictionaries” that listed a Sumerian logogram beside its Akkadian meaning; a Sumerian logogram consisting of a cuneiform sign or sign grouping for a Sumerian word, which was then used to represent an Akkadian word with the equivalent meaning.²¹ Modern scholars typically transcribe Sumerian logograms into capital letters, a convention that will be applied to all Sumerian logograms and words in this article.

The Sumerian-Akkadian dictionaries indicate that the Sumerian logogram MUL (“star”) stood for the Akkadian word *kakkabu*, “star,” as well as the terms *šiṭirtu*, “inscription,” and *šiṭru*, “writing.”²² This point is highlighted by the entry, USAN *šiṭir kakkabū*, “Evening [is] the writing of the stars.”²³ Moreover, MUL was the common determinative used before the names of planets, stars, and constellations.²⁴

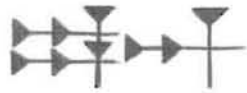
This offers a glimpse of the Babylonian-Assyrian astrologer’s worldview: each constellation, star, and planet was construed as a piece of “writing.” And because stars, constellations, and planets embodied deities this writing was numinous—literally the “writing” of the star-gods. Francesca Rochberg summarizes this conception, “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.”²⁵

This evolved into the conviction that the starry sky consisted of *šiṭirti šamāmi*, *šiṭir šamê*, or *šiṭir burūmê*, “heavenly writing.”²⁶ Hence the Babylonian-Assyrian “astrologer”/ṭupšarru was a highly literate “writer” who envisioned the starry sky as a hallowed cuneiform “text.”

The Pervasiveness of Puns in Cuneiform Writing

Because they were adroit grammarians and linguists, Mesopotamian astrologers were well-aware of the manner by which polysemy emerged in their writing, 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 *šiṭirtu* “inscription” and *šiṭru* “writing.” In addition, MUL represented the Akkadian verb *nabāṭu*, “to shine brightly.”²⁷ MUL could also be read MULU, which represented the Akkadian word *mulmullu*, “arrow.”²⁸ Thus, when a Mesopotamian astronomer inscribed or read the cuneiform sign MUL it could potentially interject the meanings “star, inscription, writing, brightly-shining” and “arrow” (Fig. 1).

Moreover, the potential for polysemy increased due to the vast number of homophones (e.g., *to*, *two*, *too*) 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.²⁹ This scholarly convention is exemplified in Fig. 1, which shows the 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 MUL₂; the third most frequent reading for “MUL” is transcribed MUL₃, and so forth. Furthermore, Mesopotamian astrologers utilized AB₂ as an esoteric form of “MUL,” which modern scholars transcribe as MUL_x.³⁰ Crucial for non-specialist readers to remember is that *the subscript numbers and subscript x are a modern convention*; a Mesopotamian astrologer would have read all of these signs as “MUL.”



MUL = *šifirtum*, “inscription,” *šifru*, “writing,” *nabāṭu*, “to shine brightly”
 MULU = *mulmullu*, “arrow”



MUL₂ = *kakkabu*, “star” *nabāṭu*, “shine brightly”
 TE = *uššu*, “foundation,” *simtu*, “ornament,” *saḫālu*, “to pierce”



MUL₃ = *kuzāzu*, “wood wasp,”
 SUR₃ = *ḥarru*, *sūru*, “watercourse”



MUL₄ = *kakkabu*, “star,” *nabāṭu*, “shine brightly”
 UL = *ṣātu*, “distant time,” *inbu*, “fruit,” *ḥabāṣu*, “to be elated”



MUL₅ = *kakkabu*, “star”
 IKU = *ikû*, “field”



MUL_x = *kakkabu*, “star”
 AB₂ = *arḫu*, “cow, month”

Figure 1. The Sumerian logograms that were read “MUL” (in capitals), an alternate logographic reading for each sign (in capitals), followed by the Akkadian words these logograms represented (in italics). (sketch: Ashely McCurdy)

In addition, the “MUL” signs served as logograms for other Akkadian words, a fact already demonstrated with MUL. The cuneiform sign MUL₂ represented *kakkabu* “star” and *nabāṭu* “shine brightly,” but could also be read TE and represented additional words including, *uššu*, “foundation,” *simtu*, “ornament,” and *saḫālu*, “to pierce.”³¹ MUL₃ stood for *kuzāzu*, “wood wasp,” but was also read SUR₃, the logogram for two Akkadian words that meant “watercourse.”³² MUL₄ represented *kakkabu* “star” and *nabāṭu* “shine brightly”—but it was also read UL and stood for the Akkadian words, *ṣātu*, “distant time,” *inbu*, “fruit,” and *ḥabāṣu*, “to be elated.”³³ MUL₅ was an infrequent logogram for *kakkabu* “star,” but was commonly read IKU, which represented the Akkadian *ikû*, “field.”³⁴ And AB₂, the logogram

representing the Akkadian *arḥu*, “cow,” and its homonym, “month,” also bore the esoteric reading MUL.³⁵ Hence, when a Mesopotamian magician read or inscribed one of the cuneiform signs read “MUL” it could interject the words, “star, shining brightly, inscription, writing, arrow, foundation, ornament, pierce, wood wasp, watercourse, distant time, fruit, feeling-elated, field, cow” and “month” through punning. Remarkably, Fig. 1 presents only a fraction of the various readings and meanings for the 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.³⁶

One form of punning definitely involved the “heavenly writing” of the stars. In a monumental inscription Assyrian king, Esarhaddon (680-669 BC), wrote 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.”³⁷ Although Esarhaddon never reveals 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 texts that refer to “hidden words,” *amāt niširti*, as the “secrets of the gods,” *pirištu ša ilī*.³⁸ The implication being that Esarhaddon was communing with the deities in their own cryptic form of divine communication, namely, secret messages delivered by puns encrypted in the star-gods’ titles. Michael Roaf and Annette Zgoll have coined the term ‘astroglyph’ to describe *lumāši*-writing, and stress that this cryptic script was “derived from scribal knowledge of the forms of cuneiform signs, [and] from equivalences between Sumerian logograms and Akkadian words,” emphasizing that, “Such linguistic and visual puns ... are commonly found in the Mesopotamian world.”³⁹

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 ancient writer 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.⁴⁰

Here the remarks of A. R. George become pertinent:

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.⁴¹

I argue that by inscribing his name in *lumāši*, or “constellation”-writing, King Esarhaddon had inadvertently or intentionally disclosed an intimate trade secret of the Mesopotamian astrologer-magician: that the constellations depicted divine cuneiform “writing” that imparted sacrosanct wisdom through the medium of wordplay.

Wordplay as Revelation

And while today wordplay is regarded as a form of humor or witticism, cuneiform literature indicates that punning held a far more solemn role—frequently functioning as numinous inspiration. Noegel summarizes this phenomenon,

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...⁴²

The “diviners” to whom Noegel refers were the *ummânuš*—the “scholar-magicians” that included the astrologer. He then postulates the rationale behind this conception:

... 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.*⁴³

Thus, because most cuneiform signs had multiple readings and meanings, almost every cuneiform word was ripe with potential forms of esoteric interpretations derived from polysemy and puns. And the discovery of such double entendre was believed to divulge a hidden aspect of the entity it described.

This seems to explain why Babylonian and Assyrian scholar-magicians—which included astrologers—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 often conceptualized as a revelation imparted directly from the gods to humanity, and was typically accompanied by fierce admonitions to secrecy.⁴⁴

A perfect example of pun-based enlightenment is seen with the Babylonian commentary asserting that the sky was made of water. It reads: *šamê ša mē*, “skies [mean] ‘of water.’”⁴⁵ Here, the possessive case Akkadian word for “skies, heavens” (*šamê*) simultaneously spelled “of water” (*ša* = “of”; *mē* = “water”)—a double meaning that reflected the ancient scholarly belief that the “skies, heavens” were comprised of and fashioned from water. The solemnity of the discovery is seen three lines later, where the scholar-magician adds, “... a secret of the scholar. The uninitiated shall not see.”⁴⁶ Worth noting is that this pun-based, Babylonian conviction regarding the heavens’ watery composition seems to be the impetus behind the irrational Genesis 1:7-8 claim that the Judaic deity had created waters that remained in the heavens.⁴⁷

Significant here is the manner by which divine names were analyzed for concealed puns that might disclose some previously unknown aspect of a deity. 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.*⁴⁸

The available evidence indicates that if a Mesopotamian astrologer-magician discerned a pun within a star-god’s name, he was inclined to construe this concealed meaning as a divine revelation imparted from heaven;⁴⁹ one that disclosed a previously unknown attribute or characteristic of that particular divinity.

Nowhere is this concept better illustrated than in Babylonian-Assyrian creation myth, *Enuma Elish* tablet VII. There Mesopotamian magician-scholars decoded wordplay from the fifty epithets for the supreme Babylonian deity, Marduk, and then arranged these puns into

coherent statements that exposed facets of his identity and powers.⁵⁰ Because the commentaries on puns given in *Enuma Elish* VII were an essential reference manual to Mesopotamian astrologers,⁵¹ we will analyze one astronomical line to illustrate how this practice was employed.

Line 126 of *Enuma Elish* VII reads,

The god Crossing [is] his star which in the heavens they caused to appear.⁵²

To comprehend this verse we must first know that the deity Marduk was embodied in the planet Jupiter, and that astronomical texts refer to Marduk-Jupiter 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.⁵³ Pun-seeking Babylonian magician-scholars envisioned this Akkadian sobriquet artificially—as if it was a Sumerian logogram, DINGIR NE₂-BI-RU.⁵⁴ They then combed through the cuneiform signs in search of wordplay that exposed some previously undiscovered aspect of this planet-god’s powers. The ancient author(s) apparently knew that the star atlas “MUL-APIN” referred to Jupiter as *Nēbiru*/“Crossing” as “the star of the god Marduk”;⁵⁵ thus the determinative DINGIR, “god,” was equated with the Akkadian *kakkabu*, “star.”⁵⁶ DINGIR was also read AN, the logogram that represented *šamê*, “the skies,” in Akkadian.⁵⁷ Sumerian-Akkadian dictionaries imparted that BI represented the Akkadian word *sû*, “his.”⁵⁸ 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 NE₂-BI-RU was also read RA, a nuance mentioned in the secret commentaries for this line;⁵⁹ and RA represented *ša*, “which,” and *ina*, “in,” in Akkadian.⁶⁰ An additional commentary implies that an earlier epithet for Marduk given in line 9, TU-TU, could be read DU₂-DU₂, thereby forging a homophone with the composite logogram DU₆-DU, which meant *šūpû*, “to cause to appear, shine” in Akkadian;⁶¹ the latter verb was then conjugated into the third-person plural *ušāpû*, “they caused to appear,” to suit the grammatical needs of the pun.

In sum, polysemous readings embedded in the cuneiform signs used to write the epithet DINGIR *Nēbiru* yielded the puns, *kakkabu*/“star,” *šu*/“his,” *ša*/“which,” *ina*/“in,” *šamê*/“the skies,” and *ušāpû*/“they-caused-to-shine” (Fig. 2). These wordplays were then arranged into a coherent statement that was construed as factual evidence elucidating the

relationship between the deity Marduk and his aspect as Jupiter, as well as the historic manner in which this relationship had become manifested in the cosmos; exegetical wisdom which was then reported as factual history as verse 126 of *Enuma Elish* tablet VII.

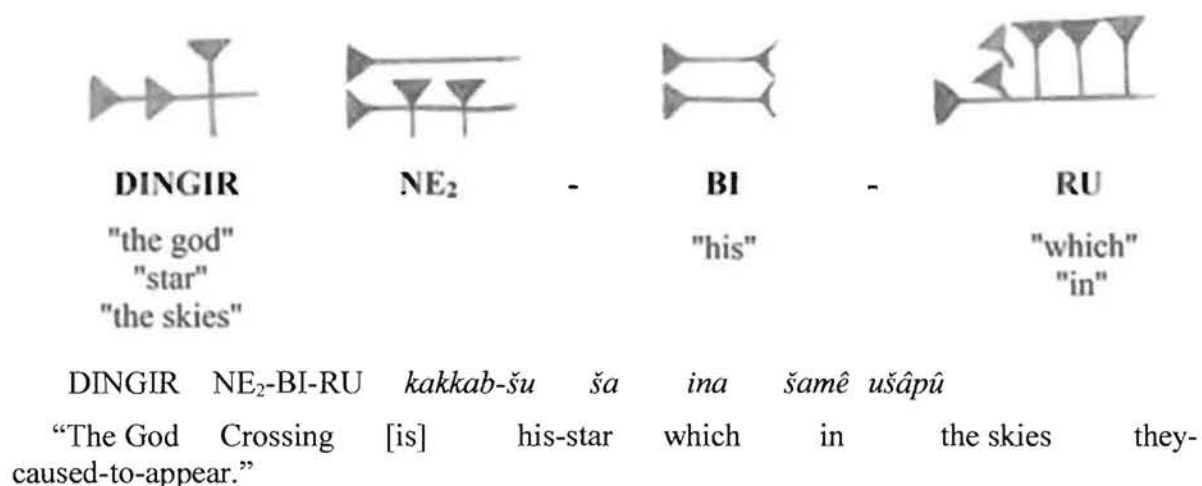


Figure 2: Each word from line 126 *Enuma Elish* tablet VII came from a polysemous reading of the cuneiform signs used in Marduk's epithet, DINGIR *Nēbiru*. The verb *ušâpû*, "they caused to appear," came from a homophone on an epithet given earlier in verse 9. (sketch by Ashely McCurdy)

In sum, the Babylonian "astrologer"/*tupšarru* was literally a "writer" who envisioned the astral sky as a sacrosanct cuneiform "text" that imparted divine messages via the polysemous readings of 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* tablet VII; a text comprised of one-hundred-sixty-two lines of commentaries that had been divulged from wordplays encrypted in fifty epithets for the god Marduk-Jupiter.⁶²

The Prerequisite Knowledge of the Genesis Author(s)

A Judaic scholar taken hostage and enlisted into colloquies with Mesopotamian astrologer-magicians would have been indoctrinated to perceive the starry sky as "heavenly-writing" that conveyed revelation through the conduit of wordplay, a practice exemplified in one of his sacred reference handbooks, *Enuma Elish* tablet VII. He would have been an expert grammarian, cognizant of each of the six-hundred cuneiform signs' various readings and meanings, as well as the fact that each cuneiform sign had a "name"—a point frequently

referred to in the Sumerian-Akkadian lexical commentaries.⁶³ He would have also been familiar with the Sumerian-Akkadian dictionaries that listed a Sumerian logogram and its equivalent Akkadian meaning. Armed with the aforementioned skills, the Genesis author(s) was readily able to detect the layers of polysemy found in cuneiform writing; thereby exposing puns he would have been inclined to conceptualize as divine revelation.

Moreover, the Genesis author would have also been privy to the astronomical texts that unequivocally describe Aquarius as the Babylonian Water-god, *Ea*, whose astronomical epithet was “Great-One.”⁶⁴ Because *Ea*-Aquarius was a divinity akin to the planet-god DINGIR *Nēbiru*, “hostaged” Jewish astrologer-scholars would have been apt to analyze this constellation-god’s titles and epithets in the hope of discerning epiphanies about Aquarius’ identity, nature, and experiences.

Finally, the same astrologer-magicians that tutored Daniel and his fellow Jewish neophytes were also be the authors of sacred history. A bona fide example of this is found in the Babylonian astrologer, Berossus, who compiled a sacred record of events from primordial times up until his day—in essence a Mesopotamian version of Genesis 1-11.⁶⁵

Although the compiler(s) of Genesis lived eons after the creation of the earth and millennia after the evolution of humankind, the aforementioned Mesopotamian astrological convictions provided a sacrosanct mechanism by which to “rediscover” the facts and details of a creation story. We will now see *lumāši*, or “constellation”-writing puns correlate directly with the characters, props, and prominent details from the “*Eden*” myth.

An Astral “Garden in the East, in *Eden*” and the Presence of the Serpent

During the six decades of Babylonian captivity, Jewish magicians were inculcated with Mesopotamian astrological arcana, the supreme tenet espousing that the constellations depicted divine cuneiform “Writing” that imparted sacred knowledge through the medium of wordplay. Yet Mesopotamian astrologers were also the calendar-keepers of their society, and the 686 BC star atlas “MUL-APIN” unequivocally states that the helical (dawn) rising of Aries commenced the New Year.⁶⁶ Thus Jewish magi such as Daniel would have been inculcated with the spiritual import of this recurring celestial event, which included the

commencement of sanctified religious events that included the reading and reenactment of the Babylonian-Assyrian creation epic, *Enuma Elish*.⁶⁷

Clearly, the celestial rising of Aries at vernal equinox heralded the most solemn spiritual moment in the Babylonian-Assyrian calendar; a time when the Mesopotamian Creation myth was recounted and reenacted publicly. Yet, after being liberated from Babylonian enslavement Jewish magicians would have been free to compose their own account of the creation. Intriguingly, the Jews retained the Mesopotamian calendar after the captivity, meaning that the dawn rising of Aries would have continued as the signifier of New Year's Day.⁶⁸

Cuneiform star atlases centuries older than Biblical Genesis confirm that Aries was one component in an interrelated tableau. Cuneiform astrological texts refer to Aries as the "Hired-Worker" (LU₂ HUN-GA₂)—literally a "Hired-[Field]-Worker" who stands beside his tool, the "Plow" (APIN), and the "Field" (IKU) he was assigned to till.⁶⁹ Moreover, according to cuneiform literature the Field constellation stood at the limits of the celestial Sea known as the *Apsû* (Sumerian ABZU).⁷⁰ The ruler of this astral body of water was the Water-god *Ea* (ENKI in Sumerian), who was to be found in the stars of Aquarius.⁷¹ The Hired-Worker, Plow, Field, and *Ea*-Aquarius are shown in Fig. 3.

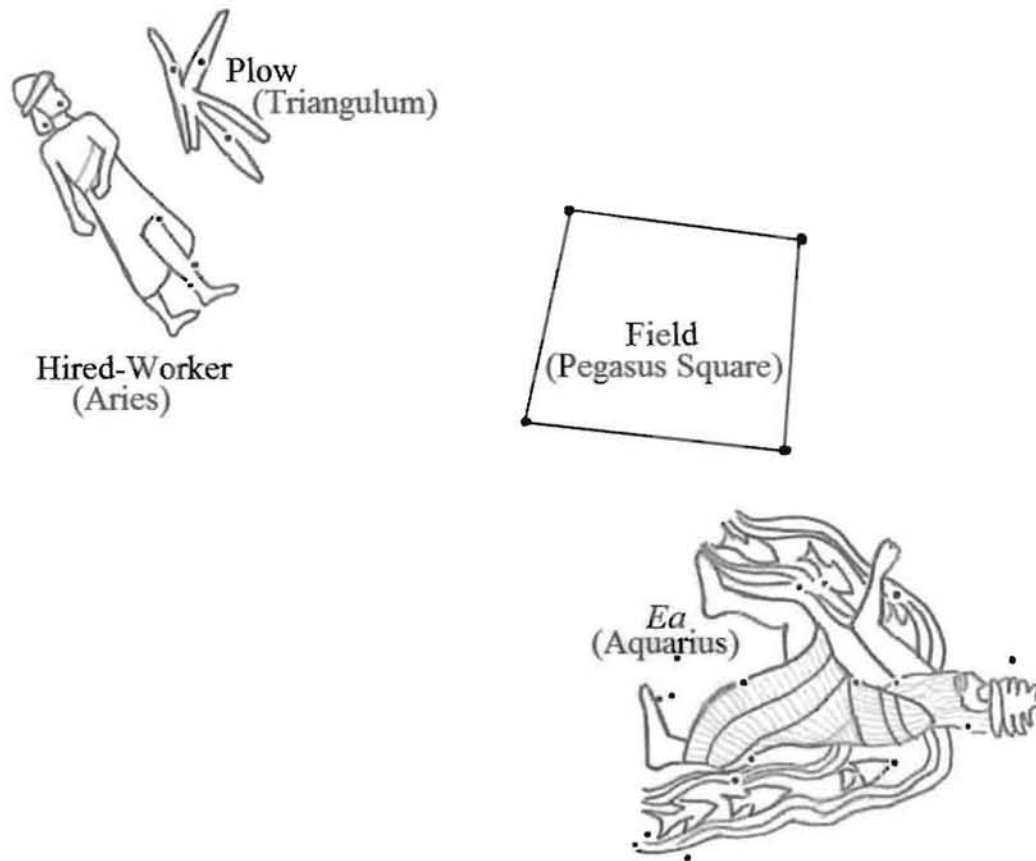


Figure 3: The “Hired-Worker,” stands beside his “Plow,” and the “Field” he was assigned to till. The Water-god, *Ea*, was positioned southwest of the Field. (sketch by Ashely McCurdy)

And here lay the bilingual pun revealing how the “Field” was transfigured into a “Garden” in the minds of the Mesopotamian-trained authors of Genesis. To see it we must recall that the cuneiform signs that make up the cuneiform script were multivalent, that each cuneiform sign had its own name, and that hostaged Jewish astrologer-scholars were acutely aware of each cuneiform sign’s various readings and meanings. Thus, IKU, the logogram meaning “Field,” went by the sign name GAN₂ (read “GAN”), which phonetically renders the Hebrew word *Gan*, “Garden” (Fig. 4).⁷²

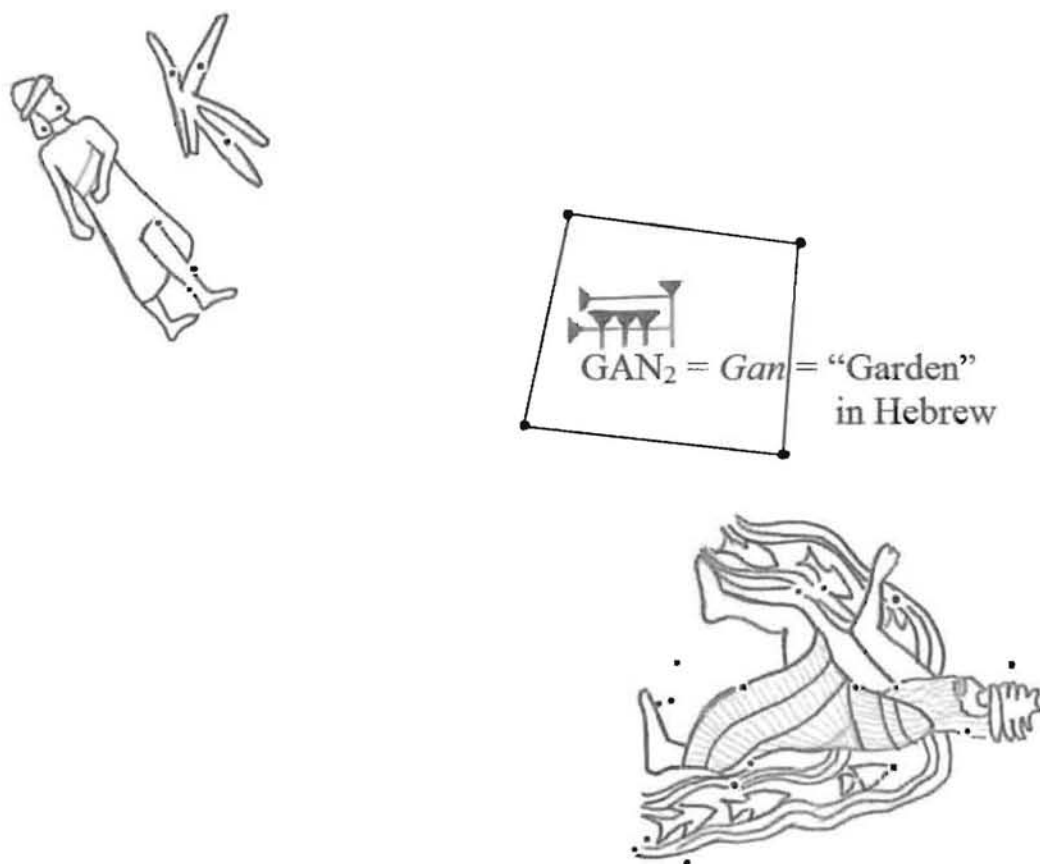


Figure 4: The four brightest stars in Pegasus make a conspicuous Square in the sky. The logogram for this constellation, GAN₂, yielded the Hebrew word for “Garden” (*Gan*).

The notion that the “Field” constellation depicted a “Garden” may have been reinforced by an additional pun. Judaic astrologer-magicians would have known that GAN₂ was sometimes inscribed on a slant, called GAN₂-*tenû*, which was read KIRI₂, the phonetic equivalent to the Sumerian word for “garden”/KIRI₆ (Fig. 5).⁷³

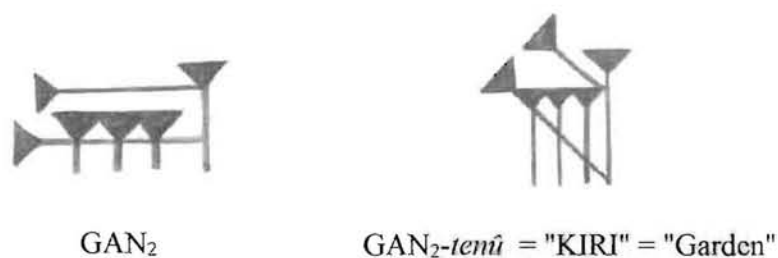
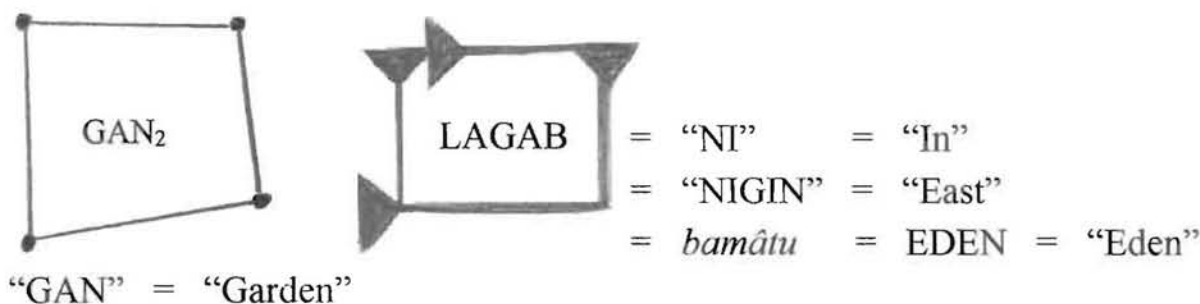


Figure 5: The inclined form of the logogram for the Pegasus Square constellation (GAN₂-*tenû*) was read KIRI₂, which phonates KIRI₆, the Sumerian word “Garden.”

Lumāši-writing even revealed the Garden’s name and location. Genesis 2:8 says that the LORD-God had planted a garden “in Eden, in [the] east” (*b’dn mqdm*). This phrase is

easily discernible as a cryptogram in the Garden's cuneiform spelling. To see it we must remember that Mesopotamian astrologer-scholars wrote in cuneiform and believed that when a constellation simulated the appearance of a specific cuneiform sign, it embodied all of the words and readings of that sign; what Michael Roaf and Annette Zgoll have coined an 'astroglyph.'⁷⁴ The Field/IKU constellation traces out a distinct square in the heavens, known today as the Pegasus Square asterism. Because this stellar square resembled the logogram LAGAB, the latter would have served as the constellation's astroglyph, and thus would have embodied all of the Akkadian words that LAGAB stood for (Fig. 6).



"a Garden, In, Eden, In, the East"

Figure 6: The Pegasus Square constellation went by the sign name GAN_2 , which phonates the Hebrew word *Gan*/"Garden." While the Pegasus Square's simulation of LAGAB imbued it with the readings: "NI, NIGIN, *bamātu*": "In Eden, In the East."

One of the Akkadian words represented by the logogram LAGAB was *bamātu* ("open country, plains").⁷⁵ Lexical commentaries studied by Mesopotamian magi listed *bamātu* as a synonym for *šēru*, "wilderness, steppe-land."⁷⁶ The Sumerian logogram for *šēru*/"steppe-land" was EDEN, and it was this archaic, Sumerian logogram that was translated into Hebrew as *Eden* (*Ēden*).⁷⁷ Hence, a hostaged Jewish astrologer-scholar would have understood the lexical equivalency present in LAGAB as follows: LAGAB = *bamātu* = *šēru*/EDEN = "steppe-land"; therefore LAGAB = EDEN. And it was the loanword EDEN that was rendered into Hebrew as *Ēden*/"Eden." Yet LAGAB could also be read NI_{10} , a homophone with the logogram used to represent the Akkadian word *ina*, "in" (NI).⁷⁸ LAGAB could also be read $NIGIN_2$, a homophone with $NIGIN_3$, the logogram that represented the Akkadian word *šītu*, "the east."⁷⁹

Altogether, the words “a Garden, In, *Eden* (‘Steppe-land’), In, the East” were encrypted in the terms for the Pegasus Square (Fig. 6).⁸⁰ This might explain why the Hebrew authors came to the conclusion that there was a “Garden in *Eden*” as well as the Garden’s vague geographical location: “In the East” (Fig. 6).

These same lexical equivalences expose the presence of a “Serpent” in the Garden of *Eden*.

We just saw that the logogram LAGAB represented the word *bamātu*, “open country, plain,” and lexical texts equated *bamātu* with the word *šēru* (“steppe-land”), the latter term represented by the logogram EDEN, from which the Biblical *Eden* got its name. In this way LAGAB came to be imbued with the Akkadian term *šēru*, “steppe-land,”—which is what Biblical *Eden* is. Yet *šēru* “steppe-land” forms a homonym with *šēru*, “serpent, snake.”⁸¹ In this way the Judaic authors of Genesis came to learn that the Garden in *Eden* also embodied a “serpent”/*šēru* (Fig. 7).

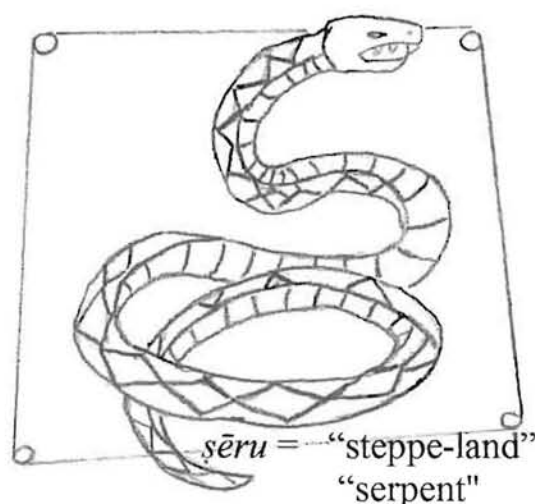


Figure 7: The Hebrew word *Eden* was based on the cuneiform logogram EDEN, meaning “steppe-land,” which was spelled *šēru* in Akkadian. *Šēru* also meant “serpent.” This wordplay imparted the presence of a “Serpent” in the astral Garden of *Eden*.

The Celestial Correlates to *Adam*, *Eve*, and *Yhwh-Elohim*

The Hebrew name *Adam* (‘*Ādām*), “Man,” was encrypted in Aries’ cuneiform title.⁸² To see it we must first recall that Mesopotamian astrologers were inclined to abbreviate constellation names.⁸³ When Mesopotamian astrologers attempted to abbreviate LU₂ 𐎶HUN-

GA₂ their acute knowledge of the cuneiform script instructed them that that the cuneiform sign LU₂ (the Sumerian word for “Man”) had no phonetic value in the Babylonian-Assyrian language of Akkadian; it served only as the determinative, or noun classifier, for male professions—which explains why it was placed before the profession: HUN-GA₂/“Hired-Worker.”⁸⁴ Because LU₂ was a “silent” cuneiform sign Mesopotamian astrologers realized that it could not serve as the abbreviation for LU₂ HUN-GA₂. They therefore substituted its phonetic equivalent, LU, which is how LU became the common abbreviation for Aries. Worth noting is that LU was also the logogram for “Ram,” elucidating how the origin of Aries, the “Ram,” was indeed based on punning.⁸⁵

Thus, a Mesopotamian-trained, Jewish astrologer in the tradition of Daniel would have surely noticed that there was a “Man”/LU standing beside the Garden-in-Eden constellation; and LU/“Man” produces *Adam* when translated into Hebrew (Fig. 8).

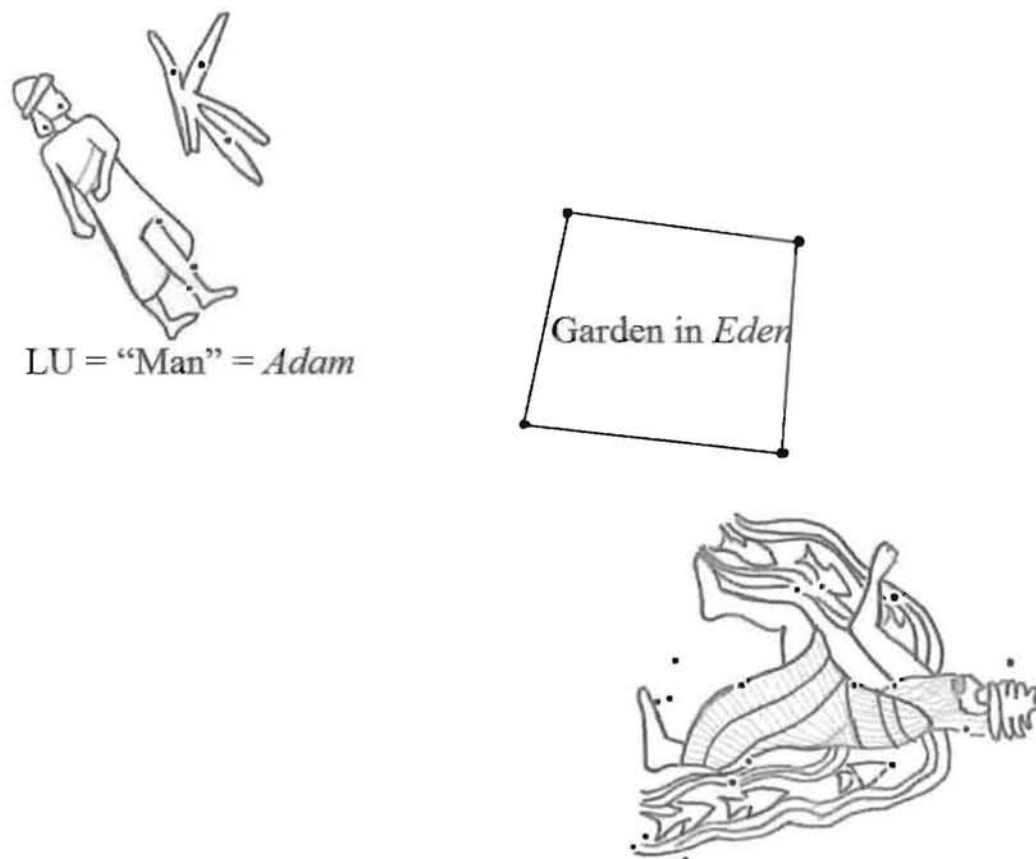


Figure 8: *Adam* means “Man” in Hebrew. An *Adam*/“Man” constellation (Aries) stood beside the *Garden in Eden* constellation (Pegasus Square).

A similar pun exposes the celestial identity of Adam's female mate. Of the eighteen references to *Adam*'s spouse in the "Garden of *Eden*" story, only once is she referred to as "*Eve*," the English rendering of the Hebrew word, *Hawwāh*, "Life."⁸⁶ In every other instance she is called '*iššāh*,' "woman."⁸⁷ The presence of the word "Woman" can be found embedded as a pun in the cuneiform term for *Adam*-Aries.

We just saw the grammatical reasons why Mesopotamian astrologers used the abbreviation LU for Aries, and that the latter was semantically endowed with all of the semantic meanings possessed by LU₂, "Man." Ancient cuneiform lexical texts studied by "hostaged" Jewish astrologers reveal that LU₂ also served as the logogram for *amīltu*, "woman"—the Babylonian-Assyrian equivalent to the Hebrew term '*iššāh*/'"woman."⁸⁸ Hence, *lumāši*-writing wordplay in Aries embodied the words "Man" and "Woman"—both of whom stand beside the Garden-in-*Eden* (Pegasus-Square) (Fig. 9).

Aries = LU₂ = "Man, Woman"

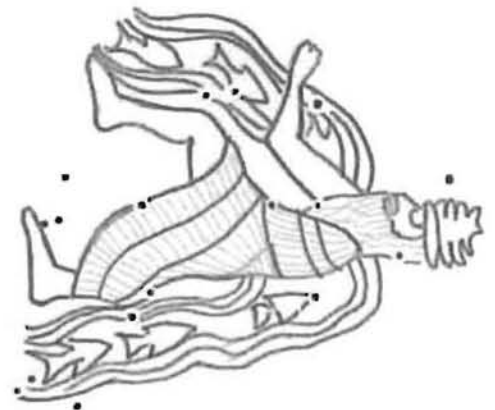


Figure 9: The abbreviated cuneiform term for Aries, LU₂, represented the words “Man” and “Woman.”

It is even possible to find the Judaic deity’s name encrypted as a constellation-writing pun on the title for *Ea*-Aquarius. Throughout the “Garden of *Eden*” story the Judaic deity is referred to by the composite title *Yhwh-Elohim* (*Yhwh-’Ēlōhîm*), “He Will Be—Gods.” *Lumāši*-writing wordplay in Aquarius corresponds to this sobriquet.

We saw in Fig. 3 that just southwest of the Garden of *Eden* constellation, embodied in the stars of Aquarius, stood the Water-god known as *Ea* (ENKI in Sumerian). *Ea* was similar in many respects to the Judaic God of Genesis—the most conspicuous similarity being that he warned a pious suppliant of an impending, universal Deluge which he himself sent upon the earth, then commanded his devotee to build a huge boat to save himself and his family. This alone suggested that the Mesopotamian Water-god constellation *Ea*-Aquarius was syncretized with the God of the Israelites. Yet constellation-writing puns embedded in *Ea*-Aquarius’ cuneiform titles correspond with name of the Judaic deity in the “Garden of *Eden*” narrative.

The archaic, vowel-less Hebrew personal name for the Judaic deity is *Yhwh*, and most scholars agree that the name is conjugated as a future tense form of the archaic Hebrew verb *hāwāh*, “to be, become.”⁸⁹ Thus *Yhwh* literally means “He-Will-Be”—which was the name the Hebraic god disclosed to Moses on Mount *Horeb* (Exodus 3:15-16). However, that is not the whole story. In verse 3:14 the Judaic deity initially tells Moses that his name is “I Will Be—Who—I Will Be” (*’Ehyeh ’āšr ’Ehyeh*), reiterating the name *’Ehyeh* (“I-Will-Be”) in the same verse. It is not until the next two lines that the Hebrew god gives the third-person singular form of the verb *hāwāh*—*Yāhwāh* (“He-Will-Be”)—which is then used throughout the rest of the Old Testament as God’s personal name, i.e., *Yhwh* in vowel-less, archaic Hebrew.

The name “I Will Be—Who—I Will Be” (*’Ehyeh ’āšr ’Ehyeh*) and “I-Will-Be”/*’Ehyeh* can be found enciphered as *lumāši*-writing wordplay in Aquarius. Mesopotamian-trained, Jewish astrologer-magicians would have known that Aquarius depicted the Water-god, *Ea*, and that this deity had the divine determinative (DINGIR) affixed to his title.⁹⁰ They would have also been privy to an ancient god list which gives IDIM as an epithet for *Ea*-Aquarius.⁹¹ Hence, a popular epithet for *Ea*-Aquarius was, DINGIR-IDIM. Because they were seeking puns for exegetical enlightenment, Jewish astrologer-authors would have surely known that DINGIR/“god” also represented the Akkadian *jā’u*, “my, mine,” and was equated with the

synonym MU (“god”), a logogram that also meant “name.”⁹² Thus, “My, Name,” was encoded as a concealed pun in a common epithet for *Ea-Aquarius* (Fig. 10).

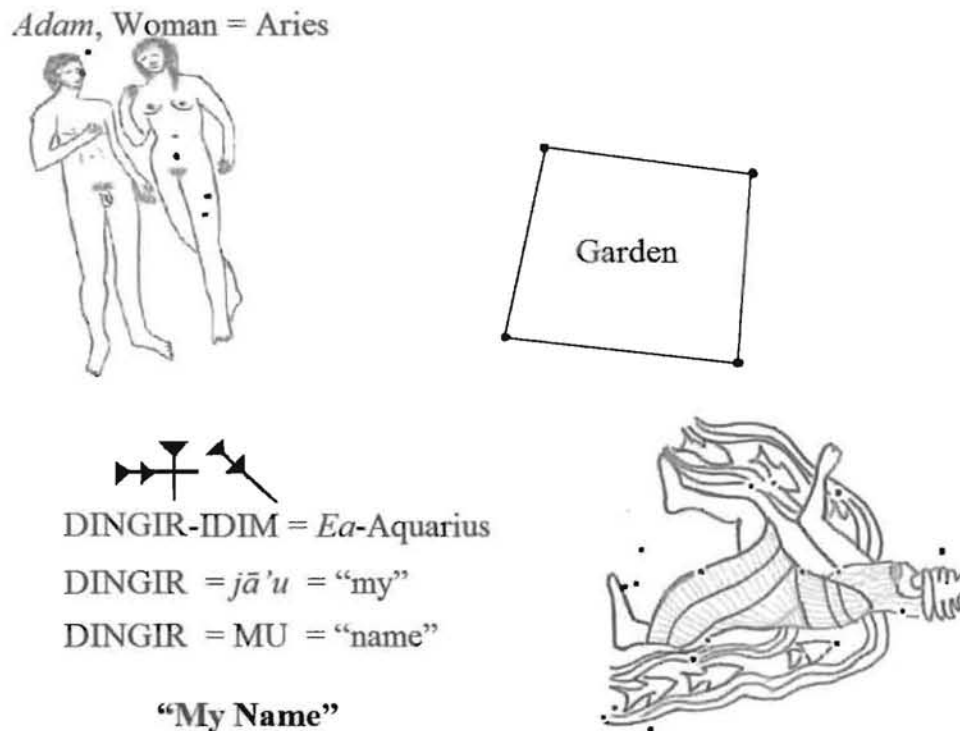
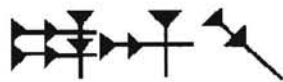
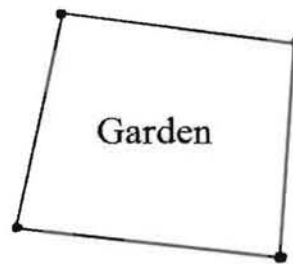


Figure 10: Lexical equivalencies in the epithet DINGIR-IDIM were enciphered with the phrase “My Name.”

IDIM can also be read ME₄, thereby phonating the Sumerian verb ME/“to be.”⁹³ D.O. Edzard emphasizes that ME typically assumed the future tense form of the verb “to be”, i.e., “will be.”⁹⁴ Moreover, ME₄ also forged a homophone with ME₅, “I.”⁹⁵ And because *Ea-Aquarius* was a constellation, it had the celestial determinative MULU (“star”) affixed to it, a homophone with the word MULU_x, “who.”⁹⁶ The cuneiform MULU_x/“who” serves the same grammatical function as the Hebrew *’āšr* (“who”) in the divine name *’Ehyeh ’āšr ’Ehyeh* (“I Will Be–Who–I Will Be”) given in Exodus 3:14. (Fig. 11). The Judaic god’s compulsion to repeat *’Ehyeh*/“I-Will-Be” in this verse may bear a cryptographic correlation in the epithet IDIM; as the common form of this sign during the Babylonian exile resembled the number “two” (MIN₅), which phonetically imparted “ditto” and was written MIN, MIN₃, or MIN₆.⁹⁷

Altogether these puns impart: “I, Will-Be, Who, Ditto”; which may have served as the impetus for the Judaic god to repeat his name in Exodus 3:14 (Fig. 11).

Adam, Woman = Aries



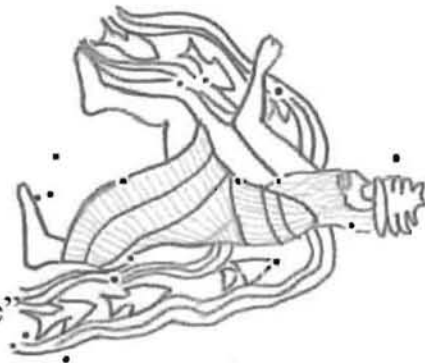
MULU-IDIM = *Ea-Aquarius*

MULU = MULU_x = "Who"

IDIM/ME₄ = ME = "Will-Be"

= ME₅ = "I"

IDIM = MIN₅ = "Ditto"

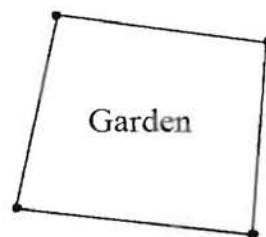


"I, Will-Be, Who, I, Will-Be" = 'Ehyeh 'āšr 'Ehyeh (Ex 3:14)

Figure 11: The first personal name the Judaic deity gave to Moses, "I Will Be–Who–I Will Be" can be traced to wordplay in an epithet for *Ea-Aquarius*.

Additional puns imply how "I-Will-Be"/'Ehyeh was transformed into the name "He-Will-Be"/*Yhwh* by Jewish astrologer-scholars. We have shown that an alternate reading for *Ea-Aquarius*' epithet (IDIM) was ME₄, phonating ME/"Will-Be." IDIM was also read BI₄, phonetically imparting BI, "he."⁹⁸ This may have served as the impetus to conjugate ME/"Will-Be" into Hebrew third-person singular, i.e., "He-Will-Be"/*Yhwh* (Fig. 12).

Adam, Woman = Aries



DINGIR-IDIM = *Ea*-Aquarius

IDIM/ME₄ = ME = "Will-Be"

IDIM/BI₄ = BI = "He"



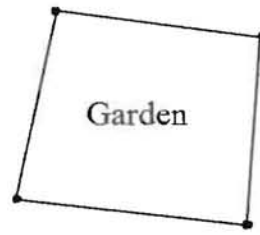
"He, Will-Be" = *Yhwh*

Figure 12: The words "He-Will-Be" were encrypted as puns in the epithet DINGIR-IDIM. These correlate with the personal name of the deity given throughout the Old Testament: *Yhwh*, "He-Will-Be."

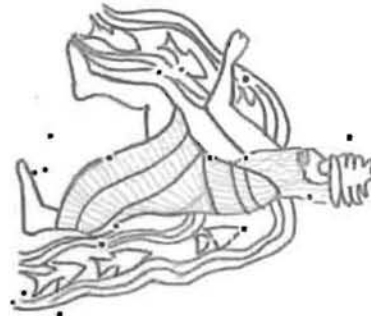
Esoteric cuneiform lexical entries studied by Jewish astrologer-scholars during the Babylonian enslavement offer linguistic correlations that provide a plausible explanation for how *Yhwh*/"He-Will-Be" and *Elohim*/"Gods" came to be joined in the "Garden of *Eden*" narrative, and how these two deities came to be equated with *Ea*-Aquarius in Judaic thought.

The other name for the Judaic God, *Elohim* ("Gods"), can be traced to an esoteric commentary found in tablet seven of the Babylonian creation story, *Enuma Elish*. Line 126 reports that DINGIR/"god" meant *kakkabu*, "star."⁹⁹ Thus, every star in *Yhwhh*-Aquarius was a "god"/DINGIR; meaning that the constellation itself was composed of plural DINGIR, or "gods." Hence, through its collection of stars, Aquarius was imbued with the word "Gods," or *Elohim* in Hebrew (Fig. 13).

Adam, Woman = Aries




DINGIR-IDIM = *Ea*-Aquarius



DINGIR = *kakkabu* = “star” → “stars” = “Gods” = *Elohim*

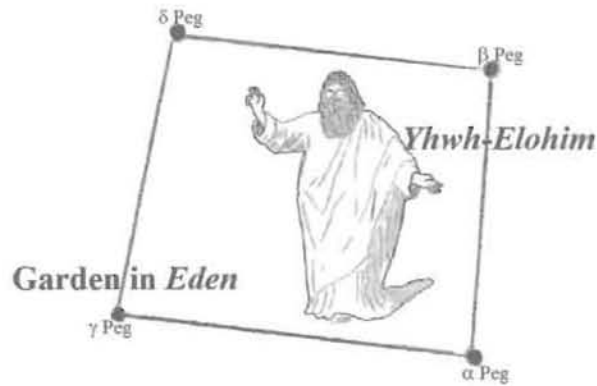
Ea*-Aquarius = *Elohim

Figure 13: The commentaries in *Enuma Elish* tablet VII indicate the word “stars” is equated with “Gods.” This may explain why the Judaic deity is referred to as *Elohim*, “Gods,” throughout the Hebrew Bible.

The Judaic impetus to join the words “He-Will-Be”/*Yhwh* and “Gods”/*Elohim* in the “Garden of *Eden*” myth was also embedded in Aquarius’ astronomical epithet. Because *Ea*-Aquarius was a constellation it assumed the celestial determinative, a common form being MUL₂ (sign name TE). Yet MUL₂/TE also meant “to joint together.”¹⁰⁰ Thus “Join-Together, He-Will-Be, Gods” was encrypted as puns in Aquarius’ epithet. I contend that this *lumāši*-writing wordplay was viewed as the divine decree that compelled Jewish astrologer-scholars to join *Yhwh*/“He-Will-Be” with *Elohim*/ “Gods,” producing the *Yhwh-Elohim* (“He Will Be —Gods”), the title of the Judaic deity found throughout the “Garden of *Eden*” story.

The notion that *Yahweh-Elohim* (Aquarius) took up residency and was present in the Garden constellation can also be discerned from astronomical knowledge. The seventh-century BC cuneiform star atlas “MUL-APIN” specifically states that the Field constellation was the *šubtu*, “dwelling, residence,” of the Water-god, *Ea*.¹⁰¹ And since *Ea*-Aquarius

embodied *Yhwh-Elohim*, this sentence imparted that the Jewish deity's residence was also the Field. Moreover, because the cuneiform sign for "Field" (GAN₂) renders "Garden" (*Gan*) in Hebrew, this wordplay imparted that the Garden was *Yhwh-Elohim*'s dwelling (Fig. 14).



**The Garden is the “residence”/šubtu of
*Yhwh-Elohim***

Figure 14: Astronomical texts refer to the Garden constellation (Pegasus Square) as the “dwelling, residence” (šubtu) of *Ea*-Aquarius. Since *Yhwh-Elohim* appears to be embodied in Aquarius, the statement implies that the Garden was the Jewish god’s “residence.”

Thus far we have observed *lumāši*-writing puns encrypted in the Pegasus Square which imparted the words “Garden in *Eden*, In the east” and “Serpent.” Just southwest of the Garden was the constellation-god *Ea*-Aquarius, with wordplay in the latter’s epithet yielding the name of the Judaic deity used throughout the “Garden of *Eden*” myth: “He Will Be-Gods” (*Yhwh-Elohim*). An astronomical text states that *Yhwh-Elohim*’s dwelling was the stellar Garden constellation (Pegasus Square). While constellation-writing wordplay in Aries impart the words “Man”/*Adam* and “Woman.” All of this is shown in Fig. 15.

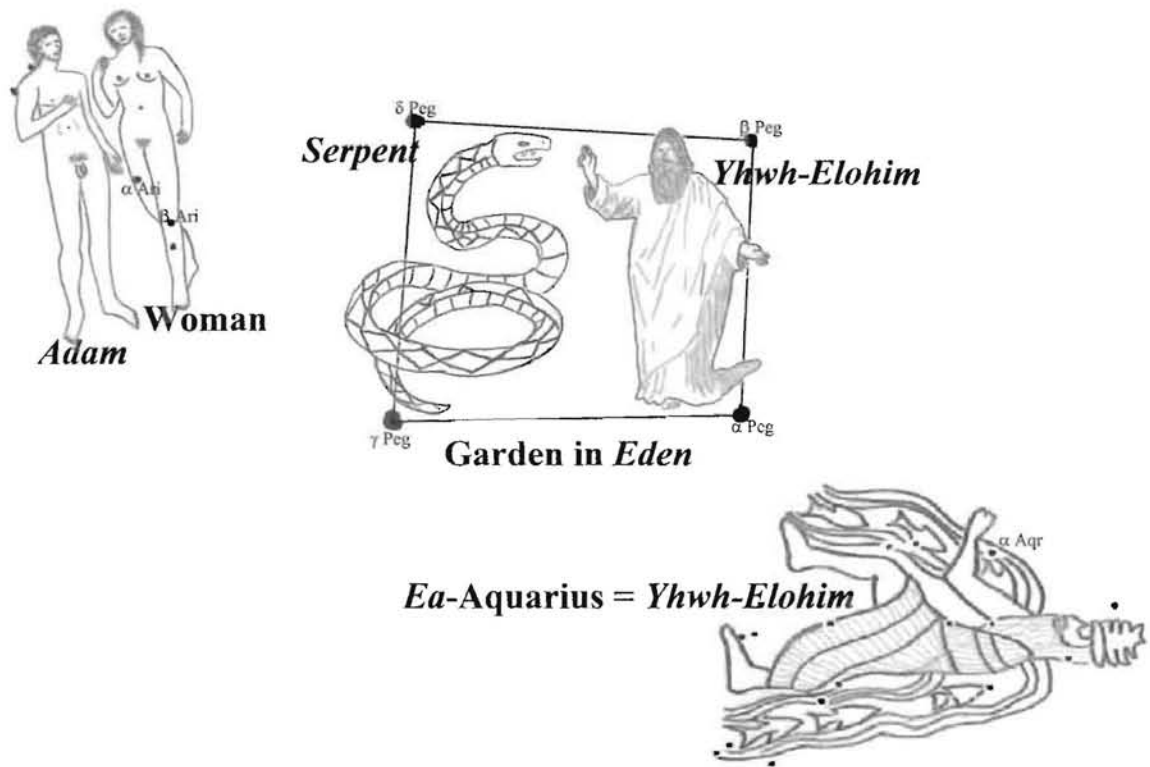


Figure 15.

We now expose *lumāši*-writing puns which may explain how the Genesis authors learned that *Adam* was present in the Garden.

- 1 יהוה אלהים; Transliterated: *Yahweh-’Ēlōhīm*.
- 2 Hebrew: *Ḥawwāh*.
- 3 *The Anchor Bible Dictionary* III, ed. David Noel Freedman (Doubleday, 1992) 82. Henceforth abbreviated *ABD*; *ABD* I, 1219, 500.
- 4 Other Biblical passages indicating that the “Garden of *Eden*” myth was accepted as historicity by Jews and Christians include: Job 20:4, 31:33; Sirach 33:10, 40:1, 49:16; Isaiah 51:3; Ezekiel 28:12-13; 31:9, 36:35; Revelations 2:7, 22:1-3.
- 5 Samuel Rolles Driver *The Book of Genesis; with Introduction and Notes* (Methuen, 1906) 53; E.A. Speiser “Genesis; Introduction, Translation, and Notes” *The Anchor Bible* vol. 1 (Doubleday, 1964) 53, 8, 9, XXXVIII-XXXIX, brackets inserted.
- 6 John William Rogerson “The Date of Genesis 1-11” *Journal for the Study of Old Testament* (1991) 76.
- 7 G. I. Davies “Introduction to the Pentateuch” in *The Oxford Bible Commentary* eds. John Barton and John Muddiman (Oxford: Oxford University Press, 2001, 2007) 37.
- 8 Walter Brueggeman *Genesis* (Atlanta, Georgia: John Knox Press, 1982) 24.
- 9 Other Biblical references to the Babylonian captivity include: 1 Chronicles 9:1; 2 Chronicles 36: 20, 22-23; Psalms 137:1-9; Daniel 1:1-7; Ezra 2:1-2, 5:12-16; Nehemiah 7:6-7; 2 Kings 20:18, 24:16; Ezekiel 12:13; Jerimiah 20:6, 24:1, 29:1, 32:5, 34:3, 39:7.
- 10 David Brown “Mesopotamian Planetary Astronomy-Astrology” *Cuneiform Monographs* 18 (Groningen, Netherlands: Styx Publications, 2000), 33-34.
- 11 *Ibid.*
- 12 *Ibid.*; *The Assyrian Dictionary of the Oriental Institute of the University of Chicago* eds. Martha T. Roth et. al. (1956-2010) vol. 20, 108, 2, *ummānu*. Henceforth abbreviated *CAD*.
- 13 D. Brown “Mesopotamian Planetary” 33.
- 14 *Ibid.*, 33-34; R.C. Thompson *The Reports of the Magicians and Astrologers of Nineveh and Babylon* vol. 2 (London: Luzac and Co., 1900), xiv, *passim*.
- 15 The Chaldeans were tribally organized, Akkadian-speaking, semi-nomads that inhabited the lakes and swamps of the lower Tigris and Euphrates and are first attested in records dating to the ninth century BC. When centralized authority in nearby Babylon waned, the Chaldeans filled the political vacuum, producing a line of Mesopotamian kings. See: Joan Oates *Babylon* (Thames and Hudson, 1986), 110-135.
- 16 Jonathan Stökl “A Youth Without Blemish, Handsome, Proficient in all Wisdom, Knowledgeable and Intelligent”, Ezekiel’s Access to Babylonian Culture” in *Exile and Return; The Babylonian Context* eds. id. and Caroline Waerzeggers (Berlin/Boston, Walter de Gruyter GmbH, 2015) 228-229.
- 17 *Ibid.* 223-252; Jonathan Stökl “Schoolboy Ezekiel, Remarks on the Transmission of Learning” *Die Welt des Orients*, 45(1) (2015) 50-61.
- 18 For simplicity I will refer to the Genesis author in the singular, “he,” but it is plausible that this story was the product of multiple Jewish scholars that had been inculcated with Mesopotamian astrological precepts.
- 19 D. Brown “Mesopotamian Planetary” 33-36; Francesca Rochberg *The Heavenly Writing; Divination, Horoscopy, and Astronomy in Mesopotamian Culture* (Cambridge University Press, 2004) 41, 45, 71, 219; *CAD* 19, 152-153, *ṭupšarru*.
- 20 Willy Hartner “The Earliest History of the Constellations in the Near East and the Motif of the Lion-Bull Combat” *Journal of Near Eastern Studies* 24 (1965) 2; P. Felix Gössmann “Planetarium Babylonicum, order Die Sumerisch-Babylonischen Stern-Namen” *Sumerisches Lexikon* IV(2) ed. P. A. Deimel (Rom, Verlag des Papstl. Bibelinstituts, 1950) *passim*.
- 21 For sign names see: Jean-Jaques Glassner *The Invention of Cuneiform; Writing in Sumer* trans. and ed. by Zainab Bahrani and Marc van de Mieroop (Baltimore & London, Johns Hopkins University Press, 2003) 137; For Mesopotamian astrologers’ familiarity with Sumerian-Akkadian dictionaries see: W.G. Lambert “A Late Assyrian Catalogue of Literary and Scholarly Texts” in the *Kramer Anniversary Volume; Cuneiform Studies in Honor of Samuel Noah Kramer* ed. Barry L. Eichler (Kevelaer, Verlag Butzon & Bercker, 1976) 313-318; Rochberg *Heavenly Writing* (2004) 209-236; For Sumerian logograms in general see: John Huehnergard *A Grammar of Akkadian* (Atlanta, Scholars Press, 1997) 107-111.
- 22 *CAD* 8, 45-46, *kakkabu*, lexical section; *CAD* 17, pt.3, 144, *šitirtu*, lexical section, *CAD* 17, pt.3, 144-145, *šitru*, lexical section.
- 23 *Akkadisches Handwörterbuch* ed. Wolfram von Soden, III (Wiesbaden, Germany, Otto Harrassowitz, 1981) 1253, *šitru*, lexical section. Henceforth abbreviated *AHW*.
- 24 Rykle Borger *Mesopotamisches Zeichenlexikon* (Münster, Ugarit-Verlag, 2004) 302, no. 247.
- 25 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) 15, n. 54.
- 26 *CAD* 17, pt.3, 144, *šitirtu*, b; *CAD* 17, pt.3, 144, *šitru*, 2; Rochberg *Heavenly Writing* (2004) 64, 163, 294, 299.
- 27 *CAD* 11, pt.1, 22, *nabātu*.
- 28 *CAD* 10, pt.2, 190-191, *mulmullu*.
- 29 Huehnergard *Grammar of Akkadian* 70.
- 30 Erica Reiner “Astral Magic in Babylonia” *Transactions of the American Philosophical Society* 85(4) (1995) 5, n. 11.

- 31 *The Electronic Pennsylvania Sumerian Dictionary* (2006) eds. Åke W. Sjöberg and Erle Leichty: mul₂ (<http://psd.museum.upenn.edu/epsd/nepsd-frame.html>). Henceforth abbreviated *ePSD*.
- 32 *ePSD*: mul₃; Borger *Zeichenlexikon* 388, no. 634.
- 33 *CAD* 11, pt.1, 22, *nabātu*, lexical section; *CAD* 16, 116, *šātu*; *CAD* 7, 144, *inbu*, lexical section; *CAD* 6, 8, *ḥabāšu* A.
- 34 Borger *Zeichenlexikon* 290, no. 174.
- 35 *Ibid.* p. 396, no. 672.
- 36 Victor A. Hurowitz, Victor "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, CDL Press, 2000) 66, n. 9.
- 37 Michael Roaf and Annette Zgoll "Assyrian Astroglyphs, Lord Aberdeen's Black Stone and the Prisms of Esarhaddon" *Zeitschrift für Assyriologie* 91 (2001) 266; Irving L. Finkel and Julian E. Reade "Assyrian Hieroglyphs" *Zeitschrift für Assyriologie und vorderasiatische Archäologie* 86 (1996) 244-265; Julian E. Reade "Assyrian Architectural Decoration, Techniques and Subject-Matter" *Baghdader Mitteilungen* 10 (1979) 35-46; *CAD* 9, 245, *lumāšu*.
- 38 Scott B. Noegel *Nocturnal Ciphers, The Allusive Language of Dreams in the Ancient Near East* (New Haven, American Oriental Society, 2007) 37-38, n. 128.
- 39 Roaf and Annette Zgoll "Assyrian Astroglyphs" 291-292.
- 40 *Ibid.* 267.
- 41 A.R. George *The Babylonian Gilgamesh Epic; Introduction, Critical Edition and Cuneiform Texts I* (Oxford University Press, 2003) 86-87.
- 42 Scott B. Noegel in Nancy Joseph ed. (2002) "Why Freud Should Credit Mesopotamia" *A & S Perspectives* Winter/Spring02/Noegel.htm (Accessed: 21 April 2006). Link no longer active.
- 43 *Ibid.* Second italics added.
- 44 Alasdair Livingstone *Mystical and Mythological Explanatory Works of Assyrian and Babylonian Scholars* (Clarendon Press, 1986) 1; Rochberg *Heavenly Writing* (2004) 209-236; Noegel *Nocturnal Ciphers* 37-38, 70-76.
- 45 Livingstone *Mystical and Mythological* 33; Wayne Horowitz *Mesopotamian Cosmic Geography* (Winona Lake, Eisenbrauns, 2011) 224.
- 46 Livingstone *Mystical and Mythological* 33; c.f., Noegel *Nocturnal Ciphers* 70-76.
- 47 Horowitz *Mesopotamian Cosmic* 113, n. 7.
- 48 George *Babylonian Gilgamesh Epic I* 86-87, italics added.
- 49 *Ibid.* I 86-87; Livingstone *Mystical and Mythological* 17, 49.
- 50 Jean Bottéro "Les Noms de Marduk, L'Écriture et la "Logique" en Mésopotamie Ancienne" in *Memoirs of the Connecticut Academy of Arts & Sciences; Essays on the Ancient Near East in Memory of Joel Jacob Finkelstein XIX*, Dec. 1977 ed. Maria de Jong Ellis (Archon Books) 5-28; C.f., Stephanie Dalley trans. *Myths from Mesopotamia* (Oxford, New York, Oxford University Press, 1989) 276-277, n. 47.
- 51 Lambert "A Late Assyrian Catalogue" 313-318; Rochberg *Heavenly Writing* 209-236.
- 52 Wolfram Von Soden "Neue Bruchstücke zur sechsten und siebenten Tafel des Weltschöpfungsepos Enūma Eliš" *Zeitschrift für Assyriologie und vorderasiatische Archäologie* 47 (1942) 16-17; Horowitz *Mesopotamian Cosmic* 114-115.
- 53 Hermann Hunger and David Pingree *MUL-APIN; an Astronomical Compendium in Cuneiform* (Horn, Austria: Verlag Ferdinand Berger & Söhne Gesellschaft M. B. H., 1989) 28-29; Gössmann *Šumerisches Lexikon* nos. 260, 311.
- 54 Bottéro "Les Noms de Marduk" 20.
- 55 Hunger & Pingree *MUL-APIN* 28-29.
- 56 Bottéro "Les Noms de Marduk" 12.
- 57 *Ibid.*
- 58 *Ibid.*; Borger *Zeichenlexikon* 320, no. 358.
- 59 Bottéro "Les Noms de Marduk" 17-18.
- 60 *CAD* 17/pt.1, p. 1, *ša*, lexical section; *CAD* 7, pp. 141-142, *ina*, lexical section.
- 61 Bottéro "Les Noms de Marduk" 12, 16-17; *CAD* 1/pt. 2, p. 202, *apū*, 5.
- 62 Bottéro "Les Noms de Marduk" 5-28.
- 63 Glassner *The Invention of Cuneiform* 137.
- 64 Gössmann *Šumerisches Lexikon* no. 81. Sumerian GU-LA = *Rabū* in Akkadian.
- 65 S.M. Burstein *The Babyloniaca of Berossus* (Malibu, California: Undena, 1978) passim.
- 66 Hunger & Pingree *MUL-APIN* 40.
- 67 Alexander Heidel *The Babylonian Genesis* (University of Chicago Press, 1951) 16-17; Dalley *Myths* 231-232.
- 68 *ABD I*: 816-817.
- 69 Gössmann *Šumerisches Lexikon* nos. 244, 39; 193.
- 70 Samuel Noah Kramer and John Maier *Enki, the Crafty God* (Oxford University Press, 1989) 49.
- 71 Gössmann *Šumerisches Lexikon* no. 81.
- 72 Borger *Zeichenlexikon* no. 174; *The Brown-Driver-Briggs Hebrew and English Lexicon* eds. F. Brown, S. Driver, C. Briggs (Hendrickson Publishers, 1996) 171. Henceforth abbreviated *BDB*.

- 73 For GAN₂-*tenû* read KIRI₂ see: Borger *Zeichenlexikon*, 83, no. 175. For KIRI₆ = “garden” see: *ibid.* p. 359, no. 541.
- 74 Finkel and Reade “Assyrian Hieroglyphs” 248; Reade “Assyrian Architectural Decoration” 45; Roaf and Zgoll “Assyrian Astroglyphs” 266.
- 75 *CAD* 2, 76, *bamātu*, lexical section.
- 76 *Ibid.*; *ibid.* 16 pp. 138-139 *šēru* A, lexical section.
- 77 Speiser “Genesis” 16; *BDB* 726-727.
- 78 For LAGAB read NI₁₀ see: Borger *Zeichenlexikon* p. 507; For NI = *ina* “in” see: *CAD* 7, 142, *ina* lexical section. Note that a common form of the astronomical title for the Pegasus Square, AŠ IKU, embodies the logogram AŠ = *ina* “in” (*ibid.* pp. 141-142, *ina*, lexical section), which may also be the origin of the pun on *ina* “in.”
- 79 Borger *Zeichenlexikon* p. 508; *CAD* 16, 215 *šītu*.
- 80 Note that Sumerian and Akkadian does not possess a definite or indefinite article.
- 81 *CAD* 16, 148, *šēru* B.
- 82 *BDB* 9.
- 83 Gössmann *Sumerisches Lexikon* passim.
- 84 Huehnergard *Akkadian Grammar* 108.
- 85 Arthur Ungnad “Besprechungskunst und Astrologie in Babylonien” *Archiv für Orientforschung* 14 (1941-1944) 256 n. 37; For celestial punning as the basis for Aries’ mythical encounter with Phrixus and Helle see: John McHugh “The Sacred Puns that Imparted Aries’ Astronomical Appearance and Mythical Flight with Phrixus and Helle” *Migration and Diffusion* (7 February 2017): file:///C:/Users/Owner/Downloads/McHugh%20%207.2.2017%20(7).pdf
- 86 *BDB* 295.
- 87 *Ibid.* 61.
- 88 *CAD* 1/pt.2, 48, *amīlu*, lexical section.
- 89 *BDB* 217-18; Samuel P. Tregelles *Gesenius’ Hebrew and Chaldee Lexicon* (Wm. B. Eerdmans Publishing Company, 1957) 219.
- 90 Hunger & Pingree *MUL-APIN* 35.
- 91 Borger *Zeichenlexikon* p. 271.
- 92 For DINGIR/AN = *jā’u* “my” see: *CAD* 7, 330, *jā’u*, lexical section; For MU = DINGIR/*ilu* “god” see: *ibid.* 91, *ilu*, lexical section.
- 93 Borger *Zeichenlexikon* p. 270, no. 113.
- 94 D.O. Edzard *Sumerian Grammar* (Atlanta: Society of Biblical Literature: 2003) 83, e.g., 117.
- 95 *CAD* 1/pt.2, 106, *anāku*, lexical section.
- 96 *CAD* 10/pt.1, 213, *mannu*, lexical section. Note that in the woman’s dialect (Emesal) MULU_x = LU₂ = *mannu* “who.”
- 97 *ePSD*: ditto.
- 98 For IDIM/BL₄ see: Borger *Zeichenlexikon* p. 472; For BI = *šū* “he” see: *CAD* 17/pt.3, 155, *šū*.
- 99 Bottéro “Les Noms de Marduk” 12.
- 100 *CAD* 8, 250, *kasū* A, 2.
- 101 Hunger & Pingree *MUL-APIN* 29.