THE ARCANE CELESTIAL PRECEPTS THAT EXPOSE THE STAR OF BETHLEHEM AMID THE STELLAR TABLEAU OF JESUS' NATIVITY

John McHugh*

Utah Cultural Astronomy Project, Utah Rock Art Research Association, Salt Lake City, Utah, USA (Received 30 October 2023, revised 25 November 2023)

Abstract

The identity of the star of Bethlehem reported in Matthew's Gospel remains one of Christianity's greatest mysteries. Equally inexplicable are the outright contradictions that appear in the Gospel accounts of Jesus' birth. Matthew 2.1-12 describes how a star had signalled the birth of the Christ-child, then led astrologers from the east to the child's house in Bethlehem, where they offer their gifts of gold, frankincense, and myrrh. Luke 2.1-20 makes no mention of a star and instead describes a pastoral scene in which Jesus' mother, the pregnant virgin, Mary, utilizes a manger as a make-shift crib. Afterward, an "angel of the Lord" informed shepherds that the "swaddled child lying in a manger" would be the "sign" of the Christ-infant's birth. This article presents two esoteric forms of history verification accessible to the evangelists in the late first century A.D. From Hellenism came katasterismos, the idea that the constellations comprised tableaux of monumental, historic events. From Mesopotamia came lumāši - or 'constellation' writing, the conviction that polysemy encrypted in the constellations' cuneiform titles imparted inviolable truth. When used as a cipher, these precepts expose a direct correlate to the main characters and props in Jesus discordant Nativity narratives, impart a wordto-word correlation with the Luke 2.12 claim that the "swaddled infant lying in a manger" would be the "sign" of the Christ-child, and simultaneously imply the Christmas star's celestial identity while providing an exact correlation with the words used to describe the star's scientifically implausible motion in Matthew 2.9.

Keywords: star, Christmas, magi, celestial, mythology

1. Introduction

The star of Bethlehem reported in the Gospel of Matthew 2.1-12, endures as one of Christendom's greatest mysteries. Written in Greek, the text states that "astrologer-priests from the east" (probably Babylonia) had observed the Christchild's "star in the east" which led them on a 1450 km. journey from their homeland in Babylonia to Jerusalem [1-6], where they conferred with King Herod and his "chief priests and scribes". Verses 2.9-11 reports that the star then

^{*}E-mail: jjmchugh72164@comcast.net

turned due south and led the astrologers another 10 km until positioning itself over the 'house' (*oikia*) of baby Jesus, where they bestow their iconic gifts of gold, frankincense and myrrh.

From an astronomical perspective, Matthew's "Christmas star" elicits incredulity. What kind of a star could rise in the east, lead astronomers on a three-month journey from Babylonia to Jerusalem, then abruptly turn south and travel another 10 km. until positioning itself over the house of the Christ-child as shown in Figure 1? (The distance between Babylon and Jerusalem is 1,448 km. The Book of Ezra 7.9 notes that this journey took four months. Since the exiled Jews in that passage included children and the elderly, a group of eminent astrologers and their entourage would have taken a far shorter duration, perhaps three months.) In era when court-authorized astronomers reckoned the calendars of Greek, Roman, and Near Eastern nations, how could such an unprecedented celestial event have been omitted from their astronomical diaries?

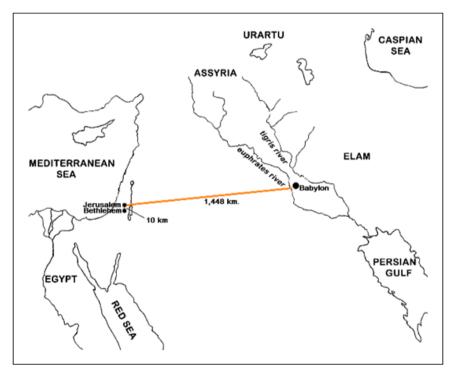


Figure 1. Matthew 2.1-8 describes how a star led astrologers 1,448 km. from their homeland in Babylonia to Jerusalem. Verses 2.9-11 report that the star turned south and continued for another 10 km before stationing itself over baby Jesus' house in Bethlehem.

Matthew's "Christmas" star vignette is impugned by Luke's version of the event, which is devoid of a *star*, *astrologers*, and the *house*, and instead recalls how Jesus' parents were called by emperor's edict to register for a "census" in Bethlehem, the hometown of Jesus's father, Joseph. The mass influx of

registrants had apparently caused the local caravanserai to become full, forcing Joseph to take his pregnant, virgin fiancé to the animal pens located below the customers' rooms [3, p 399-401; 4, p. 521; 7]. In Luke 2.9 an "angel of the Lord" (aggelos kuriou) appears before "shepherds" (poimenes) and proclaimed the definitive "sign" (sēmeion) that would divulge the identity of the Christchild: "You will-find an infant wrapped-in-cloths and lying in a manger". The next line proclaims how a "multitude heavenly army" (plēthos stratias ouraniou) joined the "angel of the Lord" in a refrain of praise. In Luke 2.15-16 the shepherds rush off to Bethlehem and manage to locate the exact "feedingtrough" in which the swaddled child lay.

The glaring discrepancies in Matthew and Luke's Nativity narratives shed doubt on their historicity. Moreover, theologians acknowledge that no one present during Jesus' adult ministry had attended his birth, except for Mary and Joseph. Yet the jarring contradictions imply that the 'Infancy' stories could not be founded upon the shared experiences of Jesus' parents. R.E. Brown summarizes the consensus of science-minded Christian theologians in writing: "All of this means that, in fact, we have no real knowledge that any or all of the infancy material came from a tradition for which there was a corroborating witness" [3, p. 33].

The lack of eyewitness testimony of Jesus' birth raises some vexing questions:

- 1. How did Matthew and Luke manage to confidently record entirely discordant versions of Jesus' birth?
- 2. From what source(s) did Matthew draw his iconic story elements consisting of a *star*, *astrologers*, *King Herod*, *gold*, *frankincense*, *myrrh*, *house* and the preternatural claim that the star *went before them until having-come*, *it stood over where the child was*?
- 3. Conversely, what source(s) did Luke use to compile his essential characters and props, consisting of an *angel of the Lord*, *shepherds*, *flock*, *fields*, *heavenly army*, and its cryptic *sign* consisting of a *swaddled child lying in a manger*?

The solution appears to lie with previously overlooked astronomical clues embedded in the 'Infancy' vignettes themselves. Matthew claims that "astrologers"/magoi from Babylonia perceived that a specific star signalled the birth of the "Christ"/Christos. Intriguingly, Babylonian star atlases contemporaneous with the Gospels refer to the brightest star in Leo - Regulus -as Šarru, "King" [8, 9]. Yet Šarru ("King") was also a dialectical variation of šerru, "infant, baby, child" [10, 11], a point underscored by the fact that Regulus's title was sometimes written as the Sumerian logogram TUR, "infant, baby, child" [8, p. 216, 403; 12]. Thus, Babylonian astrological tablets affirm that Regulus was simultaneously a "King" and "Child" star (Figure 2). Correspondingly, "child" (paidion) and "king" (basileus) are the Greek terms used to describe baby Jesus throughout Matthew's Nativity (Matthew 2.1-12).

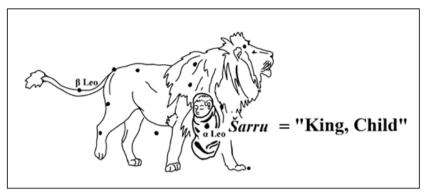


Figure 2. Babylonian star atlases refer to Regulus as *Šarru*/"King", a title that simultaneously rendered the homonym *Šarru*, "Baby, Infant, Child". Late astrological tablets sometimes label Regulus with the Sumerian logogram TUR, "Infant, Child". (Elizabeth Hardy)

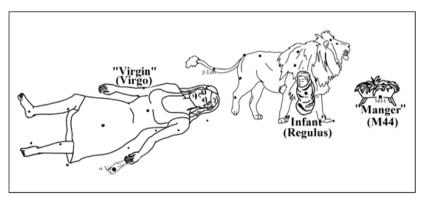


Figure 3. According to the Matthew and Luke's Gospels, Mary conceived Jesus as a *parthenos*, "virgin", which corresponds to Virgo's Greek spelling: *Parthenos*/"Virgin". Regulus embodied an "Infant"/Šarru, and M44 was labelled *Phatnē*, "Manger". (Elizabeth Hardy)

Moreover, both Matthew and Luke regard Jesus's conception as miraculous, since Mary became pregnant while still a *parthenos*, "virgin" (Matthew 1.18-24, Luke 1.26-27). A direct correlate to Mary's chaste condition lies directly east of the Child-King star, in Virgo's Greek title, *Parthenos* (Figure 3) [13, 14]. Furthermore, Luke 2.12 insists that an integral part of the "sign" (*sēmeion*) that marked the Christ-child was that he would be lying in a *phatnē*, "manger". And although the Greek *sēmeion* did indeed mean "sign, omen, portent", it also possessed a more nuanced definition: "a sign from the gods, an omen, especially of the constellations" [15]. Remarkably, there is a celestial "manger" immediately west of the "Virgin" and "Child" star in the form of M44, which pre-Christian Greek astronomical texts registered as a *Phatnē*/"Manger" [13, p. 235-236, 480-485; 14, p. 112-114; 16]. When plotted on a star atlas these three star-figures form a tableau that corresponds to three of the main

components from Jesus's Nativity narratives, i.e., he was a "Infant King" born to a "Virgin" and, according to Luke, he was laid in a *Phatnē*/"Manger" (Figure 3)

Furthermore, Babylonian astrological tablets catalogue western Virgo, Coma Berenices, and Leo's Tail-stars as the embodiment of the Mesopotamian Pregnancy-goddess asterism whose name $Er\hat{u}$, "To-Be-Pregnant", emphasized here confined condition [11, vol. I, p. 72]. (The Virgo stars that were incorporated into the goddess $Er\hat{u}$ probably included some or all of β , η , ν , ξ , ρ , π Virginis [8, p. 46-47; 17]. $Er\hat{u}$ was spelled: E_4 - ru_6 - u_8 [18].) Thus, Greek and Mesopotamian astrological texts confirm that the words "Pregnant, Virgin" (*Parthenos*, $Er\hat{u}$) were embedded in the Greek and cuneiform titles for Virgo, which correspond to the preternatural circumstances surrounding Mary's conception: God arranged her sexless impregnation, resulting in her becoming a "pregnant virgin" (Figure 4).

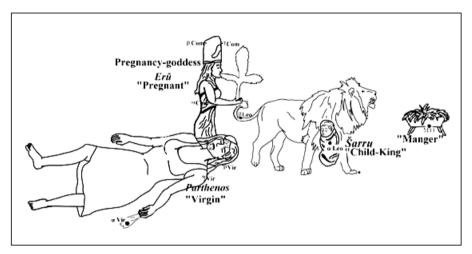


Figure 4. Pre-Christian, Hellenic star atlases label Virgo as *Parthenos*, "Virgin". Babylonian astronomical tablets indicate that some of Virgo's western stars were joined with Coma Berenices and Leo's Tail to form the Pregnancy-goddess, $Er\hat{u}$, a name that meant "Pregnant". Thus the words "Pregnant, Virgin" ($Er\hat{u}$, Parthenos) were embedded in Virgo's cuneiform and Greek titles. (Elizabeth Hardy)

The presence of a direct correlation between "Pregnant-Virgin", "Infant-King", and "Manger" asterisms in the tableau formed by Vir + Com + Leo + Cnc suggests that there may be an astronomical solution to the mystery surrounding Jesus' Nativity and its enigmatic "Christmas Star".

The current article argues that Matthew and Luke's irreconcilable "Birth" narratives were grounded in two, arcane, astronomical precepts circulating in scholarly enclaves accessible to the evangelists. Because the Nativity authors were educated, Hellenistic Greek-speakers inhabiting a land (Syria-Palestine) that had been annexed by Greece, they had surely been exposed to the latter's religious ideology and mythology [19-22]. Thus, it seems possible that the two evangelists were familiar with the precept known as *katasterismos*, or "placing

among the stars". It was through *katasterismos* that the forty-eight ancient constellations were believed to have come into existence; each character or prop pictographically engaged in the preternatural, earthly incident that had been deemed so valiant it was transferred into heaven as a picture in the constellations [23, 24]. Thus, in Greek intellectual thought the starry sky comprised still-frames of deified characters, creatures, and objects forever engaging in monumental, historic events that had taken place on Earth.

Moreover, by making the claim that pagan Babylonian "astrologerclerics" (magoi) were the first ones to recognize the Christ-child's birth from the appearance of a certain star in verses 2.1-2, Matthew suggests a potential familiarity with Babylonian astrological arcana. Mesopotamian astrologicalastronomical tablets written in cuneiform script refer to the celestial sky as "heavenly writing" that disclosed inviolable truth through polysemy (i.e. "the coexistence of many possible meanings for a word or phrase") encrypted in the cuneiform spelling of the star-gods' titles; a cryptic script that seventh century B.C. Assyrian King, Esarhaddon, described as lumāši, or "constellation"-(The author uses the terms "astronomy" and indiscriminately throughout the article as the two terms were used interchangeably in the ancient world until the sixth century A.D. [25, 26].) Thus, in practice, Mesopotamian astrologers construed wordplay, punning, or double entendre in the constellation-gods' images and titles as a medium through which divine truth was imparted to humanity.

I accesses pre-Christian Greek and Babylonian-Assyrian star atlases to trace the prominent characters and props from Jesus' Nativity to an astral tableau created by the "Pregnant-Virgin", "Infant-King", and "Manger" as shown in Figuress 3-4. Polysemy encrypted in the constellation titles of this tableau and their adjacent constellations corresponds to the celestial identity of the main characters and props from Luke's Nativity narrative, including its angel of the Lord, heavenly host, shepherds, and flock, while simultaneously divulging a direct correlation to the Greek words for Luke's "constellation-sign"/sēmeion of the Christ: You will-find an infant wrapped-in-cloths and lying in a manger. Additional *lumāši*/"constellation"-writing wordplays display a direct correlation between the pre-Christian constellations and the host of characters and props reported in Matthew's rendition of Jesus' Nativity, including the astrologers, their iconic gifts of gold, frankincense, and myrrh, King Herod, as well as exact cuneiform correlates to the Greek words Matthew uses to describe the star's erratic behaviour in verse 2.9: the star, which they saw in the east, went before them until having-come, it-stood over where the child was.

The conclusion argues that the "Child-King" star, Regulus, may have been the portentous "star of Bethlehem" and that this star's scientifically untenable motion was derived from polysemous meanings encrypted in the cuneiform spellings of the constellations found in and adjacent to the "Pregnant-Virgin, Child-King, Manger" tableau (Vir + Com + Leo + Cnc). I propose that the similarities and differences in Matthew and Luke's Nativities depended upon

which constellations and associated *lumāši*/"constellation"-writing wordplays each evangelist chose to incorporate into Christ's "Birth" story.

Note that all sidereal reconstructions were created on *Stellarium*, for Bethlehem A.D. 85 [https://stellarium.org/].

2. Matthew and Luke - searching for a Birth story

Although Matthew and Luke's Nativity narratives describe the earliest moments of Jesus' life, they are the latest additions to those Gospels, both written sometime in the 80s A.D. [3, p. 32-33; 27]. The impetus to attach an 'Infancy' story to the chronicle of Jesus' ministry arose as a counterargument to Judaism and Paganism's accusation that Jesus could not be the *Christos*/"Anointed-One" because he was illegitimate; a point underscored in John 8.41, when representatives of Jewish Synagogue accuse Jesus of being born of "fornication"/porneia [3, p. 534-542; 4, p. 854; 27, p. 73-75]. Moreover, around A.D. 85 the twelfth synagogue prayer in the "Eighteen Benedictions" (*Shemoneh Ezreh*) was reformulated so that Jews who worshipped Jesus as the Messiah were stigmatized as "heretics" [3, p. 46; 28; 29]. It is surely this opprobrium to which John 9.22 refers.

Matthew and Luke's Nativity narratives countered Judaism's contention that Jesus was not the Christ, each reporting a scenario of events which verified that Jesus arose from the expected genealogy (i.e. the line of David), and that the location of his parturition, Bethlehem, was a fulfilment of the Old Testament's prophesized birthplace for the *Messiah* recounted in Micah 5.1-3. Most importantly, the Nativity narratives proved that Jesus was not illegitimate, since Jesus' mother, Mary, was supernaturally impregnated by God via the Holy Spirit while a "virgin"/parthenos.

An additional clue to the origin of the Gospels' Nativity stories is the sheer lack of eyewitness testimony at the evangelists' disposal. The literary evidence indicates that Matthew and Luke compiled their "Birth" narratives about five decades after Jesus' death, and all four Gospels begin with Jesus' adult ministry, which consisted of his teachings, miracles, death, resurrection, and ascension into heaven. The Gospels themselves verify that no person from Jesus' adult inner-circle was present at his birth, with the exception of Mary, his mother, and Joseph, his father. And the startling disagreements in the 'Infancy' narratives confirm that they were not based on the verbatim experiences of Jesus' parents, a point emphasized by R.E. Brown and G. Vermes above.

Thus, with no eyewitness testimonials at their disposal, how did Matthew and Luke come to assuredly reconstruct the details of Jesus' birth? The answer may lay with two astronomically-based modes of history verification circulating in scholarly enclaves throughout Syria-Palestine at the time Matthew and Luke wrote their 'Infancy' vignettes in the late first century A.D.

3. Astronomical history formulation in the late first century A.D.

3.1. Katasterismos, "placing-among-the-stars"

As their Gospels intimate, Matthew and Luke were well-educated, fluent in Greek, and living in a land that had been annexed by Greek-speaking peoples [3, p. 45-47, 91, 225, 235-236, 238, 448-449; 6, p. clx-clxxxvi; 7, p. 35-62]. Hence, the evangelists had surely been exposed to Hellenistic philosophy and religious mythology since it was taught in the schools of Syria-Palestine in the first century A.D. [19-22]. One Hellenic tenet called *katasterismos*, "placing among the stars", proclaimed the forty-eight ancient constellations as a sacred record of monumental, terrestrial events that had been transferred onto the celestial sphere - each constellation-god pictorially engaging in one or more of the preternatural feats that made it, like Jesus, an immortal deity in Heaven [23]. A collection of such stories was compiled by Eratosthenes (circa 276-194 B.C.) in his *Katasterismoi*/"Placings-Among-the-Stars" [24]. Thus, circumstantial evidence implies the evangelists were cognizant of the Greek conviction that the constellations embodied deities that were pictographically engaging in the miraculous earthly deeds that resulted in their deification.

A quintessential example of a *katasterismos* is found in the story of Orion's death, which was first reported in the circa 700 B.C. *Astronomia* of Hesiod: "... Orion went away to Crete and spent his time hunting ... It seems that he threatened to kill every beast there was on earth; whereupon, in her anger, Earth sent up against him a scorpion of very great size by which he was stung and so perished. After this Zeus [Jupiter] ... put him among the stars, because of his manliness, and the scorpion also as a memorial of him and of what had occurred." [21]

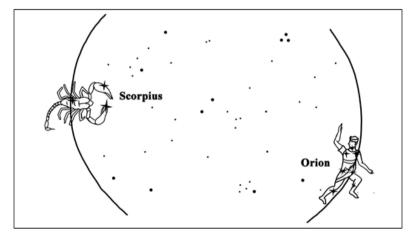


Figure 5. Whenever the zodiacal Scorpion rises, Orion sets. As early as 700 BC Hellenic astronomer-poets perceived this celestial motion as the basis for an historical chase that had taken place on Earth. (Elizabeth Hardy)

This myth was based on a celestial tableau. Whenever Scorpius rises in the east Orion flees beneath the western horizon - his head turned warily backwards as if eyeing his celestial nemesis (Figure 5). (The Egyptians based Orion's title on this gesticulation: $hr.f-h_3.f$, "who-looks-backward" [30].)

The crucial point here is that the Orion-Scorpius 'Chase Scene' vignette was reported as a factual event *because it was visible as a recurring tableau in the constellations*; an archaic conviction that can be applied to each one of the ancient, forty-eight Greek constellation and asterisms that were later codified by Claudius Ptolemy in the *Almagest* circa A.D. 150 [24, 31].

It should be emphasized that the details surrounding each *katasterism* are supernatural, that is, each describes what modern religious adherents perceive as a *miracle*, i.e. an event that cannot be explained by scientific laws and is therefore attributed to divine agency.

Thus, as erudite Greek speakers Matthew and Luke may have become familiarized with the belief that tableaux in the constellations depicted momentous earthly events.

3.2. Revelation imparted as wordplay in the celestial 'writing' of the stars

Another form of esoteric 'truth' verification circulating in first century A.D. Syria-Palestine originated in Mesopotamia. M.J. Geller notes that Mesopotamian occult wisdom, which included astrology, continued to be taught in Syria into the third century A.D., if not later [1]. And Syria is often posited as the place Thus the Mesopotamian astrological curriculum was being preserved and where Matthew and Luke wrote their Gospels [3, p. 45-47, 235-239; 6, p. clx-cxc; 7, p. 35-62]. transmitted in the same location (i.e. Syria) where Matthew and Luke had written Jesus's 'Infancy' stories. The implication being that Matthew and Luke had familiarity with Mesopotamian astrological esoterica.

Moreover, the fact that Matthew identifies "Babylonian astrologers" (magoi) as the first to acknowledge Jesus as the Christos/"Anointed-One" implies he had an awareness of their skillset. Thus it seems plausible that Matthew had become familiarized with two esteemed precepts of the Mesopotamian astrologer. One held that the constellations embodied "heavenly writing" (šiţirti šamāmi, šiţir šamê, šiţir burūmê) [12, p. 1253; 32]. Moreover, because the constellations, stars, and planets were the embodiment of deities, this celestial text was numinous - literally the 'writing' of the heavenly star-gods themselves.

The notion that the celestial sky embodied divine, cuneiform 'writing' elucidates the title and role of the Mesopotamian astronomer: *tupšarru*, "writer, scribe, author" [32, p. 41, 45, 71, 219; 33]. Although this term overtly describes the ability to write, it tacitly implies the *ability to read*, which underscores the astrologers' premier talent: Babylonian astronomers were adept at reading and writing in the extremely complex cuneiform writing system, a task that included mastery of their spoken tongue, Akkadian, as well as proficiency in the reading and writing of Sumerian, the 'dead' language of the southern Mesopotamian

people from whom the Akkadian-speaking Babylonians and Assyrians adopted the cuneiform script. Hence, in praxis, Mesopotamian astrologers were skilled astronomers and cuneiform grammarians who 'read' the astral sky as if it were a cuneiform tablet encoded with communiqués that imparted infallible truth to the astrologer-authors who were able to decipher their cryptic messages.

Entailed to the precept that the starry sky was "heavenly writing" was the conviction that amāt nisirti, "hidden words", embodied pirištu ša ilī, "the secrets of the gods" [34, 35]. The term "hidden words" (amāt niṣirti) refers to polysemy, i.e. "multiple meanings in a word or phrase", and can be equated with the modern notion of wordplay, double entendre, or punning. And although our modern, science-oriented ken regards wordplay as a form of witticism or humour, cuneiform literature indicates that puns served a far more solemn role as conduits through which divine truth was imparted. S. Noegel summarizes the phenomenon: "We tend to think of puns as a literary device - a sign of humour. 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." [S. Noegel, in Why Freud Should Credit Mesopotamia, N. Joseph (ed.), Arts & Sciences Perspectives, Winter/Spring 2002, http://www.artsci.washington.edu/ news/WinterSpring02/Noegel.htm, accessed on 21.04.2006]

The 'diviners' to whom Noegel refers included the astrologers. Thus, if a Mesopotamian astrologer discerned a pun from the celestial "heavenly writing" he would be inclined to conceptualize it as an infallible message imparted directly from the star-gods.

Polysemy's profound role as a means of enlightenment is underscored by astrologer-authors' persistent admonitions to secrecy. Whenever an astrologer utilized wordplay as the basis for exegesis it was typically accompanied with an adjuration to keep the pun-based wisdom concealed [32, p. 210-219; 36]. This is exemplified in the Babylonian-Assyrian belief that the sky was comprised of water, a concept deduced from wordplay. A Mesopotamian astrologer writes: $\delta am\hat{e}$ $\delta am\hat{e}$, "skies [are] 'of water'" [36, 37]. Here, the astronomer-author noticed that the possessive case Akkadian word for "skies, heavens" ($\delta am\hat{e}$) simultaneously spelled "of water" (δa = "of"; δa = "water") - a double entendre that reflected the ancient scholarly conviction that the "skies/heavens" were comprised of and fashioned from water. (This Mesopotamian conviction appears to be the impetus for the illogical Genesis 1.7-8 claim that the Judaic deity had separated the earthly and heavenly "waters" and thus there was a body of "waters" that remained in the Hebrew $\delta amay m$, "skies/heavens".) Three lines later the astrologer-scholar emphasizes the solemnity of his pun-based

discovery: "... a secret of the scholar. The uninitiated shall not see." [32] Hence, discerning revelation through the medium of wordplay was one of the astrologer's supreme talents.

To understand how Babylonian astrologers discerned unerring truth via polysemy in the "heavenly writing" of the stars, it is first necessary to analyse how such puns manifested. As their title (*tupšarru*/"astrologer-author") implies, Babylonian astrologers possessed an expertise in reading and writing the complex cuneiform writing system, a task that included mastery of their spoken tongue, Akkadian, as well as acumen with Sumerian - the 'dead' language of the southern Mesopotamian people from whom the Akkadian-speaking Babylonians and Assyrians adopted the cuneiform script. We see proof of the latter in the writing of the constellation, star, and planet sobriquets, which typically retain their older, Sumerian names [8, 38].

Yet Babylonian astrological curriculum was not confined to just celestial subjects, as they included an in-depth study of literary-mythological works such as *The Tale of Atra-Hasis* (i.e. the Creation story and oldest account of the Flood), *The Gilgamesh Epic*, and the Babylonian-Assyrian creation epic *Enuma Elish*, as such texts have been shown to be edited and inventoried by astrologers serving Assyrian King Esarhaddon [39].

Babylonian astrologers' proficiency in Sumerian and Akkadian becomes visible in their utilization of the circa 1800-1600 B.C. bilingual Sumerian-Akkadian 'dictionaries' [32, p. 211; 39]. The Sumerian-Akkadian 'dictionaries' list Sumerian logograms beside Akkadian words of equivalent meaning; a Sumerian logogram consisting of a cuneiform sign read as a Sumerian word and equated with an Akkadian (i.e. Babylonian-Assyrian) word with the identical meaning [40]. The Sumerian-Akkadian dictionaries were an indispensable resource to Babylonian astrologers [32, p. 209-236; 38]. And Mesopotamian and Hellenic scholars were translating the Sumerian-Akkadian dictionaries into Greek into the first century A.D., a timeframe contemporaneous with the penning of the Gospels [1, 41].

Moreover, it is Sumerian logograms that initially expose how the six-hundred signs used in the cuneiform writing system were prone to astounding levels of polysemy. An example of a Sumerian logogram is AN, the Sumerian word for "sky, heavens", which was used to represent that Akkadian word šamû, "skies, heavens" (note that Sumerian logograms are transliterated into capitals, and Akkadian words are transcribed into italics). AN could also be read DINGIR, "god", which was used to represent the Akkadian ilu, "god". Yet AN was also used to represent many other Akkadian words, including: $i\bar{a}$ 'u/"mine", kakkabu/"star", jubultu/"ear-of-barley", juqqupu/"impale", juqqupu/"i

Hence, when a Babylonian astrologer read or wrote the cuneiform sign AN/DINGIR it could render its primary meanings "heavens"/"deity", but also impart "mine, star, ear-of-barley, impale, of" and "taboo" through polysemy (Figure 6).

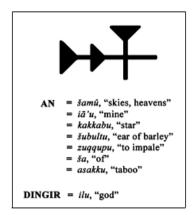


Figure 6. The Sumerian logogram AN and the host of Akkadian words it represented. AN could also be read DINGIR, which represented the Akkadian *ilu*, "god". (Elizabeth Hardy)

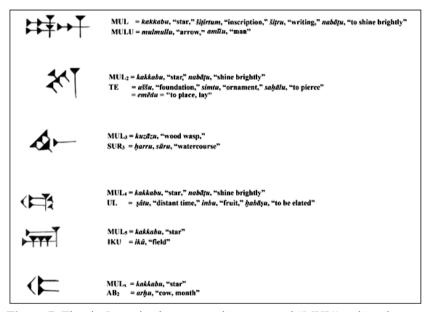


Figure 7. The six Sumerian logograms that were read "MUL" and an alternate logographic reading are shown in capitals. The Akkadian words these logograms represented are shown in italics.

This point is exemplified by the Sumerian logogram MUL, "star", in Sumerian, which represented the Akkadian word *kakkabu*, "star". Yet MUL also functioned as the logogram for many other Akkadian words, including *šiţirtu*, "inscription" and *šiţru*, "writing", as well as the verb *nabāţu*, "to shine brightly". MUL could also be read MULU, which represented the Akkadian word *mulmullu*, "arrow", and *amīlu*, "man". Hence, the logogram MUL could impart:

kakkabu, *šiṭirtu*, *šiṭru*, *nabāṭu*, *mulmullu*, and *amīlu*, "star, inscription, writing, shining brightly, arrow" and "man" (Figure 7, top line) [31, p. 69-71].

Yet the potential for polysemy expanded due to the astonishing number of homophones that were prevalent in the cuneiform writing (e.g. there, their, they're); so many, in fact, that linguists were forced to invent a transliteration system that permitted researchers to differentiate which cuneiform sign appeared on a tablet [40, p. 70]. This transliteration system is illustrated in Figure 7, which shows the six cuneiform signs that could be read "MUL". The sign most commonly read as "MUL" has no subscript number; the second most frequent reading for the "MUL" sign is transliterated MUL₂; the third most frequent reading for "MUL" is transcribed MUL₃, etc. Noteworthy is that Mesopotamian astrologers utilized AB₂ as an esoteric form of the MUL sign, which modern scholars transcribe as MUL_x [42]. Essential for non-specialist readers to remember is that the subscript numbers and x are a modern convention; Babylonian astrologers would have read MUL, MUL₂, MUL₃, MUL₄, MUL₅, and MUL_x as "MUL".

Moreover, all six "MUL" signs possessed alternate Sumerian readings that represented additional Akkadian words. MUL2 represented *kakkabu*/"star", and *nabāṭu*/"shine-brightly" and could be read TE, which stood for the Akkadian words *uššu*/"foundation", *simtu*/"ornament", *saḥālu*/"pierce", and *emēdu*/ "place". MUL3 represented *kuzāzu*/"wood-wasp", and could be read SUR3, the logogram that represented *harru* and *sūru*, "watercourse". MUL4 represented *kakkabu*/"star", and *nabāṭu*/"shine-brightly", but was also read UL, which represented *ṣâṭu*/"distant-time", *inbu*/"fruit", and *ḥabāṣu*/"elated". MUL5 functioned as an infrequent logogram for *kakkabu*/"star", and was typically read IKU, the Sumerian logogram that represented *ikû*/"field". Finally, MULx represented *kakkabu*/"star" but could read AB2, the logogram for *arḥu*, "cow, month".

Thus, when an a Mesopotamian scholar wrote or read the cuneiform sign "MUL", polysemy could interject the following additional meanings: "star, constellation, inscription, writing, shining-brightly, arrow, man, foundation, ornament, pierce, place, wasp, watercourse, distant-time, fruit, feeling-elated, field, cow" and "month". Amazingly, Figure 7 provides only a fraction of the possible readings and meanings for the six cuneiform signs that were read "MUL".

Moreover, because every Mesopotamian star, planet, or constellation had the celestial determinative "MUL" ("star, constellation") prefixed to its title, Babylonian astrologers would have understood that every celestial body was imbued with an "inscription"/šiţirtu or "writing"/šiţru. And since the stars, constellations, and planets were divinities, this "celestial writing" would have been considered divine - the sacrosanct writing of the heavenly star-gods.

4. Lumāši, or 'Constellation' - writing as the basis for revelation

One form of exegesis involved the "heavenly writing" of the constellations. On a monumental inscription, Assyrian king, Esarhaddon (680-669 B.C.), boasts that his name had been written in *lumāši*, or "constellation"-writing. The passage reads: *lumāšī tamšīl šiţir šumiya ēsiq ṣēruššun*, "I carved on them constellations, the image [i.e. equivalent] of the writing of my name" (brackets inserted in original) [43-45].

The reason Esarhaddon had his name inscribed in "constellation"-writing can be inferred from the arcane commentaries discussed above - that *amāt niṣirti*, "hidden words" (i.e. polysemy) engender *pirištu ša ilī*, "the secrets of the gods". Thus Esarhaddon's inscription implies that he was communicating with the heavenly deities in their own cryptic script, i.e. secret messages delivered by puns encrypted in the star-gods' images and titles. M. Roaf and A. Zgoll use the term 'astroglyph' to describe *lumāši*-writing, stressing that these astroglyphs had been "derived from scribal knowledge of the forms of cuneiform signs, from equivalences between Sumerian logograms and Akkadian words", and that "Such linguistic and visual puns ... are commonly found in the Mesopotamian world" [43].

Esarhaddon's use of *lumāši*-writing (i.e. polysemy encrypted linguistically and pictorially in the constellation titles and images) implies a well-established scholarly tradition for encrypting and deciphering such puns from the constellation titles. And although Esarhaddon is the only author to directly refer to *lumāši*-writing (i.e. 'astroglyphs'), modern scholars infer that the use of similar symbols in temples constructed by his grandfather, Sargon II (721-705 B.C.), were also inscribed in "constellation"-writing [43].

The author contends that King Esarhaddon had intentionally or inadvertently disclosed an intimate trade secret of the Mesopotamian astrologer. Namely, the constellations were a form of divine cuneiform 'writing' that imparted inviolable wisdom through the medium of wordplay; wisdom a modern religious adherent would categorize as 'revelation'.

This implies that the constellations' titles were enciphered with inviolable truth. This claim is bolstered by the comments of one of cuneiform scholarship's doyens, A.R. George: "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 (italics added)." [46]

This idea is substantiated by J. Bottéro, who has that all 163 lines of *Enuma Elish* tablet VII was composed entirely from polysemy enciphered in the fifty epithets for the Babylonian deity-planet Marduk-Jupiter [47]. These punbased commentaries served as an integral part of the Babylonian astronomer's curriculum [39].

If we can accept - as a working hypothesis - that Matthew and Luke were familiar with the Greek conception of the constellations as still frames of deified characters and props pictorially enacting historic earthly events (i.e. *katasterismos*), as well as the Mesopotamian conviction that the constellations comprised hallowed, cuneiform 'writing' that imparted unassailable truth through the medium of polysemy (i.e. *lumāši*-writing), then it is possible to explore a stellar tableau whose images correspond with the incongruous motifs found in Jesus' Nativity narratives. It is also possible to discern *lumāši*/"constellation"-writing correlates with the Greek words used to describe the Luke 2.12 assertion that the "constellation-sign"/*sēmion* of the Christ-child was that he would be "swaddled and lying in a manger", and the Christmas star's preternatural motion in Matthew 2.9.

5. Lumāši-writing correlates to the birth narrative in Luke 2.7

Jesus' Nativity is described in Luke 2.7. The Greek-to-English translation literally reads: "And she-bore her firstborn son and wrapped-in-cloths him and laid him in a manger ..." Each of these words can be traced to "constellation"-writing wordplays.

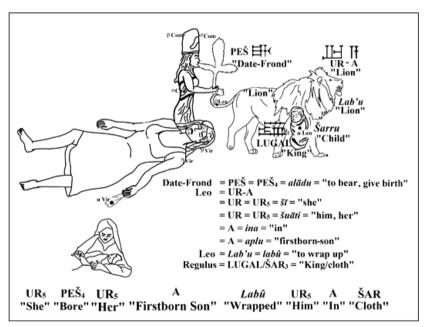


Figure 8. The opening words of Luke 2.7 bear a direct correlate to *lumāši*-writing puns encrypted in Leo and Regulus. (Elizabeth Hardy)

We have shown that Regulus embodied the "Infant-King" star, *Šarru*. The Sumerian logogram for Regulus, LUGAL ("King"), could also be read ŠAR₃, which referred to a "fine quality of cloth" [48, 49]. Late cuneiform

astrological tablets use the Sumerian logogram UR-A for Leo [8, p. 64-65]. UR formed a homophone with UR₅, the logogram that represented both $\delta \bar{\imath}$, "she", and $\delta u \bar{\imath} t i$, "him, her" [11, p. 1224, 1255]; while the logogram A represented *aplu*, "firstborn-son", and *ina*, "in" [11, vol. 1, p. 58, 380]. Another appellative for Leo was *Lab'u* ("Lion"), which was sometimes spelled *La-bu-u*₂ [11, vol. 1, 526; 50]. The latter spelling forged a homonym with the verb *labû*, "to wrap" [11, vol. 1, p. 541]. (*Labû* was also spelled *lawû* and *lamû*.) Finally, recall that some of the stars that comprise the western portion of Virgo were joined with Coma Berenices and Leo's Tail to form the Pregnancy-goddess asterism, $Er\hat{u}$, who is depicted holding a "Date-Frond" in her hand. Sumerian-Akkadian dictionaries list PEŠ as a logogram for "date-frond", which formed a homophone with PEŠ₄, the logogram that represented *alādu*, "to bear, give birth" [11, vol. 1, p. 1457].

When the infinite verbs *alādul*"give-birth" and *labûl*"wrap" are conjugated for coherence the *lumāši*-writing wordplays yield: UR₅, PEŠ₄, UR₅, A, *Labû*, UR₅, A, ŠAR, "She, Bore, Her, Firstborn-Son, Wrapped, Him, In, Cloth" (Figure 8).

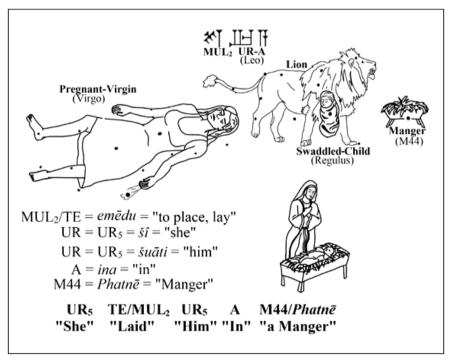


Figure 9. *Lumāši*-writing wordplay in the Leo and M44 correspond exactly with the Greek words written in the latter portion of Luke 2.9. (Elizabeth Hardy)

The second part of Luke 2.7 informs that Mary took the new-born and "laid him in a manger..." (aneklinen auton en phatnēi). The phatnē/"manger" in the narrative corresponds to the astral Phatnē/"Manger", M44 in Cancer. The

verb "laid" was derived from the Greek *anaklinō*, "to lay one thing upon another" [15, p. 56]. Its "constellation"-writing correlate can be traced to the celestial determinative MUL₂, which could potentially precede the title for every celestial body in this tableau. Here it is shown as the celestial determinative for Leo, the constellation that houses the "Child" star, Regulus. If Figure 7 we saw that MUL₂ ("star, constellation") was also read TE, which represented *emēdu*, "to place, lay" [11, vol. 1, p. 211]. As shown in Figures 8-9, cuneiform astrological tablets use UR-A as the logogram for Leo. Figure 8 illustrates that UR phonated UR₅, the logogram that stood for both *šī/*"she" and *šuāti/*"him"; while A represented *ina/* "in". Once the verb is conjugated for coherence the *lumāši*-writing puns produce: UR₅, TE/MUL₂, UR₅, A, *Phatnē*, "She, Laid, Him, In, a Manger" (Figure 9); which corresponded to the Greek words in the latter part of Luke 2.7.

6. Celestial puns that correlate with the 'constellation-sign' of Luke 2.12

The notion that "an infant swaddled and lying in a manger" was the *sēmeion*, "constellation-sign" of the Christ-child can also be traced to celestial wordplay. Late Babylonian astrological tablets use the title UR-A and A ("Lion") for Leo [8, p. 1]. Moreover, astrological texts contemporaneous with the Gospels sometimes refer to Leo's "Tail" asterism as: GIŠ KUN UR-A: "wooden Tail [of the] Lion", GIŠ KUN A: "wooden Tail [of the] Lion" [12, p. 29]. Note that GIŠ AN-NA GIŠIMMAR is a Sumerian logogram for *sissinu*, "date frond, spadix", the latter term used in "MUL APIN" I i 11 [51].

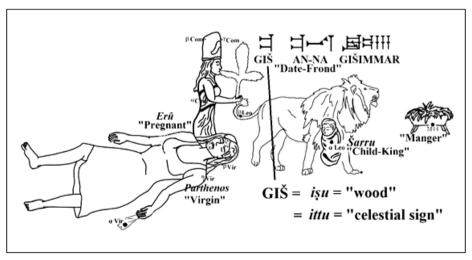


Figure 10. Leo's "Tail" stars embodied a "Date-Fond" asterism that took the determinative GIŠ ("wooden") when written. GIŠ was also the Sumerian logogram that represented *ittu*, "astrological sign". (Elizabeth Hardy)

The idea that Leo's "Tail" was comprised of "wood"/GIS was apparently derived from the knowledge that it simultaneously embodied a Date-Frond

(Figure 10), an object that is wooden and can take the determinative GIŠ/"wooden" when inscribed in writing; one example being GIŠ AN-NA GIŠIMMAR = "date frond" [51]. Moreover, although GIŠ typically meant "wood, tree" it was also equated with many other Akkadian words including, *ittu*, "(astrological) sign" [11, vol. 1, p. 406]. Thus, because Leo's "Tail" stars simultaneously embodied a "Date-Frond", they also embodied the Sumerian logogram GIŠ, "wooden", which concomitantly represented the Akkadian noun word *ittu*, "celestial-sign" (Figure 10). The Akkadian *ittu*/"astrological-sign" corresponds precisely to the Greek "constellation-sign"/sēmeion described by Luke in verse 2.12.

7. Celestial correlates to Luke's 'shepherds', 'flock', 'angel of the lord', and 'multitude of heavenly army'

Luke 2.8-13 informs that "Shepherds" (poimenes) tending their "flock" (poimnē) in the night were suddenly visited by an "angel of the Lord" (aggelos kuriou). It was the angel of the Lord that revealed the definitive "constellation-sign" of the Christ-child. Afterward, "a multitude of heavenly army" (plēthos stratias ouraniou) joined the angel in a refrain of praise. Each story element corresponds to a star or constellation listed in a cuneiform star atlas, and each was present in the sky when the "Child-King" star, Regulus, culminated when viewed from Bethlehem in A.D. 85.

When the "Child-King"/Regulus reached the meridian two "Shepherd" constellations and an astral "Flock" stood in proximity. One "Shepherd" was Orion, which hovers on the western horizon, and went by the Sumerian SIPA-ZI-AN-NA, "Faithful-Shepherd-of-the-Heavens", a title that was often shortened to SIPA/"Shepherd" [8, p. 130-131]. A second "Shepherd" is found in *Boōtēs*, a constellation positioned just above northeast horizon. Although the Greek Boōtēs literally renders "Plowman" or "Herdsman" and thus refers to a "Cattleherder" [14, p. 92-106; 15, p. 155], Matthew and Luke were presumably familiar with the cuneiform Sumerian-Akkadian dictionaries that equated the Sumerian logogram UDUL, "herdsman", with the Akkadian $r\bar{e}'\hat{u}$, "sheep-herder, shepherd" [11, vol. 2, p. 977]. Moreover, Mesopotamian star atlases describe Boōtēs's northeastern stars as Lahru, the "Ewe"; yet Lahru was concurrently a poetic term for "Flock" [49]. Thus plural "Shepherds" (Orion and Boōtēs) and a "Flock" asterism (northeastern *Boōtēs*) were present in the night sky with the Pregnant-Virgin, Infant-King, and Manger asterisms (Figure 11). (Note that the seventh century B.C. cuneiform star atlas "MUL APIN" I i 18 reads: "The star which stands in front of the Wagon [is] The Ewe star, the goddess Aya" [51, p. 23]. U₈ is the logogram for the "Ewe" star, Lahru in Akkadian, a term that simultaneously meant "Flock". Since this star is clearly not part of the "Wagon"/MAR-GID₂-DA, Ursa Major [8, p. 95-97; 9]. I used Hunger and Pingree's approximate identification as "North-eastern part of Boötes" [51, p. 137] although the star may specifically refer to η Ursae Majoris [8, p. 88]. Either way, the "Flock"/Lahru (embodied in either north-eastern Boötes or η Ursae Majoris) would have been visible with the "Shepherds" (Orion, *Boōtēs*) when the "Child"-star, Regulus, stood at the meridian for the location of Bethlehem in A.D. 85, thus depicting plural, celestial "Shepherds" and "Flock" in this tableau.)

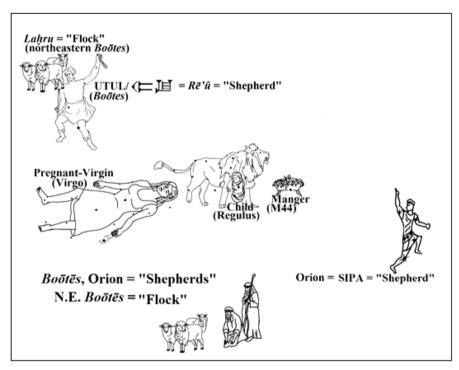


Figure 11. Cuneiform star atlases listed Orion and *Boōtēs* as "Shepherds" while the stars of northeastern *Boōtēs* were identified as *Laḥru*, "Flock". Here lay a direct correlate to "shepherds" and "flock" in Luke's Nativity story. (Elizabeth Hardy)

Luke 2.9 confirms that an "Angel of the Lord" (aggelos kuriou) appeared before the shepherds. To discern the Angel's celestial identity, we must first recall that the Greek word translated into English as "angel" – aggelos - actually means "messenger" [4, p. 8-9]. Cuneiform calendrical texts refer to Orion as DINGIR PAP-SUKAL, the "divine Preeminent-Messenger" [36, p. 138]. Hence, as the embodiment of DINGIR PAP-SUKAL, Orion depicted the divine "Preeminent-Messenger" or "Preeminent-Angel" constellation. Moreover, DINGIR also represented the Akkadian ša, "of", and bēlu, "lord". Altogether the lumāši-writing wordplay encrypted in one of Orion's sobriquets, DINGIR PAP-SUKAL, rendered: SUKAL, ša, Bēlu, "Messenger, Of, the Lord", or "Angel of the Lord" (Figure 12).

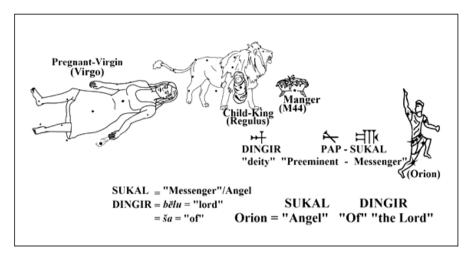


Figure 12. One of Orion's Sumerian titles was: DINGIR PAP-SUKAL, "divine Preeminent-Messenger". *Lumāši*-writing wordplay imparted: SUKAL, *ša*, *bēlu*, "Angel, Of, the Lord". This correlates to the "angel of the Lord" who appeared to shepherds in Luke 2.9-14. (Elizabeth Hardy)

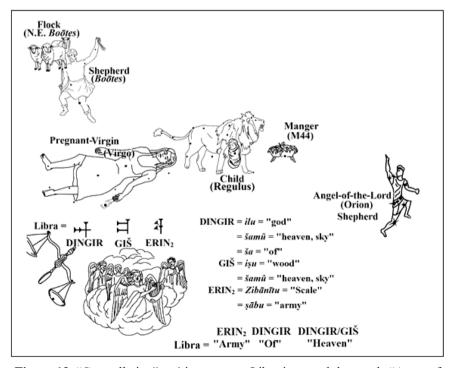


Figure 13. "Constellation"-writing puns on Libra imparted the words "Army of Heaven", which correspond with the "Heavenly Army" (*stratias ouraniou*) of Luke 2.13. (Elizabeth Hardy)

In Luke 2.13 we learn that "a multitude of-heavenly army" (*plēthos stratias ouraniou*) joined the angel of the Lord. We find a direct correlate to these words in Libra, a constellation that was rising in the east when the "Child-King" star, Regulus, culminated when viewed from Bethlehem in A.D. 85.

The Greco-Roman zodiacal "Scale", Libra, originated in Mesopotamia, where it was sometimes spelled with the logogram GIŠ ERIN₂, "wooden Scale" [8, p. 183-184; 36, p. 12]. The seventh century BC star atlas "MUL APIN" unequivocally lists Libra as a "deity"/DINGIR [51, p. 67-69]. Thus anyone familiar with the Babylonian astronomical curriculum would have understood Libra as a: DINGIR GIŠ ERIN₂, "deity, wooden, Scale". We have repeatedly seen that DINGIR ("god") was also a logogram that represented ša, "of". And in addition to meaning "Scale", ERIN₂ was also the Sumerian logogram for the Akkadian ṣābu, "army", a term that connotes a collective or multitude, i.e., the equivalent to the Greek plēthos/"multitude" [49]. Finally, the determinative for wooden objects, GIŠ, also represented the noun šamû, "heavens" [11, p. 1160]. Altogether the celestial puns yield: ERIN₂, DINGIR, GIŠ, "Army, Of, Heaven", the cuneiform equivalent to the Greek stratias ouraniou, "heavenly army" (Figure 13).

8. Matthew's rendition of Jesus' birth

Matthew's "Birth" story (2.1-12) differs markedly from Luke's, devoid of a bucolic setting comprised of *shepherds*, *flock*, *Angel of the Lord*, *fields*, and the *swaddled-child lying in a manger*. In Matthew a prodigious *star* leads *astrologers* from the east to the *house* of the *child* where they find baby Jesus with his mother, Mary, and then dispense their regal gifts of *gold*, *frankincense*, and *myrrh*. Afterward, they manage to avoid the blood-thirsty *King Herod*. We will now show that each of the prominent characters and props from Matthew's Nativity can be traced to the stellar tableau that emerges when the "Child-King" star, Regulus, stands at the meridian. Remarkably, *lumāši*-writing wordplay also corresponds to the Greek words used to describe the Christmas star's supernatural motion.

8.1. Celestial correlates to the Christ-child's house, Herod, the astrologers and treasures of gold, frankincense and myrrh

A major figure in Matthew's Nativity is the client-king of Judea, Herod ($H\bar{e}r\bar{o}id\bar{e}s$), a name comprised of the words $h\bar{e}r\bar{o}s$, "hero", and $\bar{o}id\bar{e}$, "song" [Behind the Name, https://www.behindthename.com/name/herod, accessed on 12.07.2022]. Herod/ $H\bar{e}r\bar{o}id\bar{e}s$ therefore renders "Hero's Song", or "Song-of-the-Hero". We find the correlate to Herod's name in Hydra, whose cuneiform spellings included DINGIR UŠUM, "deity Serpent" [11, vol. 1, p. 112], which Sumerian-Akkadian dictionaries equate with the Akkadian $Ba\breve{s}mu$, "Horned-Serpent" [8, p. 15]. UŠUM also represented $qarr\bar{a}du$, "hero". Moreover, besides representing the Akkadian words ilu/"god", and $s\ddot{a}$ /"of", DINGIR also stood for

šarru/"king". Finally, the Akkadian *ilu*, "deity", formed a homonym with the Sumerian word, ILU, "song" [48, p. 116; 49].

When tallied, the *lumāši*-writing puns in Hydra yield: "King, Song, Of, the Hero", which is precisely what King Herod's Greek name, *Hērōidēs*, means (Figure 14).

After King Herod the other main participants and props in Matthew's Nativity included the "astrologers", their iconic "treasures" of "gold", "frankincense", "myrrh", and baby Jesus' "house". Each of these words was enciphered as polysemy in the Virgin-Child-Manger tableau.

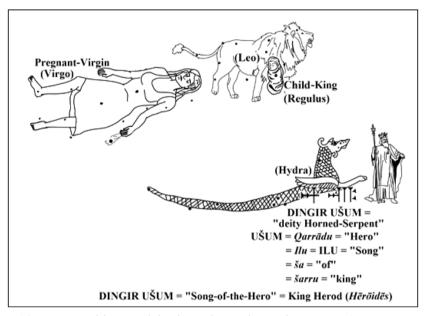


Figure 14. *Lumāši*-writing wordplay in Hydra renders "King, Song-of-the-Hero", which corresponds with King Herod's name, *Hērōidēs*/"Hero's-Song". (Elizabeth Hardy)

A direct correlation with Matthew's "astrologers" (*magoi*) is found in Virgo's original, cuneiform title, AB-SIN₂ ("Furrow"). The logogram AB can also be read ABA [18, p. 467; 48], which forms a homophone with the Sumerian A-BA, a logogram that meant "astrologer" (Figure 15) [18, p. 435; 48, p. 1]. Salient here is that a Sumerian singular noun can take the place of a collective [52].

After entering baby Jesus' "house" in verse 2:11 the astrologers then: "... opened their treasures and offered to him gifts: gold and frankincense and myrrh".

The Greek word for typically rendered into English as "gifts", *thēsaurous*, actually means "treasures", which corresponds the Akkadian word *niṣirtu*, "treasures" [15, p. 366]. We find a direct correlate in Regulus, the "King"/Šarru star, which could be written with a vast number of different Sumerian logograms including U, the latter representing both *niṣirtu*/"treasures" and *bītu*, "house"

[11, p. 1189; 11, vol. 1, p. 132]. Matthew's "gold" (*chruson*) also corresponds to wordplay in Regulus. The latter was known as the "King"/Šarru star which was sometimes written with the logogram MAN, a logogram that simultaneously represented the Akkadian šamšu, "gold" [11, p. 1158; 18, p. 708]. We find the word "frankincense" (*libanos*) embedded as polysemy in Spica. To see it we must recall that the schematic prototype for the Greek *Parthenos*/"Virgin" constellation arose in Mesopotamia. The 686 B.C. star atlas "MUL APIN" describe Virgo's stars as: DIŠ MUL AB-SIN₂ DINGIR Šala Šubultu. The Furrow constellation [is] the goddess Šala, the Ear-of-[Barley]-Corn [51, p. 33].

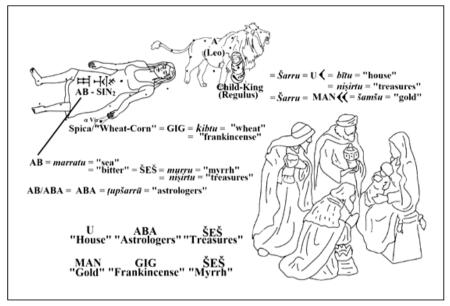


Figure 15. Correlates to Matthew's *astrologers*, *treasures*, *gold*, *frankincense*, *myrrh*, and *house* can be found embedded as *lumāši*-writing in the Virgo-Leo tableau. (Elizabeth Hardy)

Thus, Mesopotamian astronomers conceptualized Virgo as the embodiment of the goddess *Šala*, holding an Ear-of-[Barley]-Corn star (*Šubultu*), or Spica. This iconography was presumably transmitted to and retained by Hellenic astronomer-poets, who applied the more generic term *Stachus*, the "Ear-of-[Wheat]-Corn" [13, p. 80-81, 215; 14, p. 466; 15, p. 743; 16, p. 369]. The operant word here, *Stachus*/"Ear-of-Wheat-Corn", equates with the Sumerian logogram GIG, which represented both the Akkadian *kibtu*, "wheat" and *labānatu*, "frankincense" [48, p. 259-260; 49]. The latter corresponds exactly with the Greek "frankincense"/*libanos* in Matthew 2.11. Moreover, there is also a correlation between Matthew's "myrrh"/*smurnan* and the typical cuneiform title for Virgo. Above we saw that Virgo's original cuneiform spelling was AB-SIN₂ ("Furrow"). The AB sign meant "ocean, sea" in Sumerian, and could therefore represent the Akkadian noun *marratu*, "sea"

[37, p. 25-26; 49]. Yet *Marratu*/"sea" forged a homonym with *marratu*, "bitter", the typical logographic spelling for *marratu*/"bitter" being ŠEŠ, which simultaneously represented *murru*, "myrrh", the cuneiform correlate to Matthew's "myrrh"/*smurnan*. It is worth noting that ŠEŠ also stood for *niṣirtu*/"treasures" (Figure 15).

Thus, the main characters and props from Matthew's Nativity - the "astrologers", their iconic "treasures" of "gold", "frankincense", "myrrh" and baby Jesus' "house" - correspond to polysemy enciphered in the cuneiform titles for the Pregnant-Virgin (Virgo) and Child-star (Regulus) (Figure 15).

8.2. "Constellation"-writing correlates with the star's erratic motion

In Matthew 2.9 we are confronted with the star's scientifically inexplicable motion. The Greek literally reads: "And behold the star which theysaw in the east, went-before them until having-come it-stood over where the child was."

Thus, the star led the magi on a circa 1450 km. westward journey from Babylonia to Jerusalem then veered from its preordained course when it turned abruptly south and continued for another 10 km. until stationing itself over the Christ-child's "house"/oikios (Figure 1). No star, planet, comet, supernova or planetary conjunction could have performed such a feat. Yet each word of Matthew 2.9 correlates with *lumāši*-writing wordplay visible when the "Child-King"/Šarru star, Regulus, stands on the meridian when viewed from Bethlehem in A.D. 85.

Figure 15 demonstrated that $\check{S}arru'$ "King" star, Regulus, could be written with the logogram U, which simultaneously phoneticized U₃ and U₆, logograms that represent $am\bar{a}ru$, "to see, behold"; the infinitive $am\bar{a}ru$ potentially conjugated as a third-person, past-tense plural $\bar{i}mur\bar{u}$ "they-saw". We have repeatedly shown that Leo was often written A ("Lion"), a logogram that represented ina"in". An alternate reading for A was E₄, which formed a homophone with E₃, the logogram that meant $\bar{s}\bar{i}tu$, "east", and E₂, a logogram that represented $b\bar{t}t$, "where" [49]. Matthew's Greek verb translated as "went-before" ($proag\bar{o}$) more specifically renders "led" [15, p. 670]. Thus Matthew's star "led" the Babylonian magi to the Christ-infant. We find an $lum\bar{a}\bar{s}i$ -writing equivalent to the latter in TUR's alternate reading as TU₁₉, which forged a homophone with TU₂₅, the logogram that meant $\hat{a}ru$, "to lead, bring" [18, p. 529; 49].

Astronomical tablets confirm that Leo was comprised of asterisms, one being the Lion's SAG, "Head" [8, p. 1]. Matthew's presumed familiarity with the Babylonian astrological curriculum implies the awareness that an alternate logogram for Leo's "Head" was UGU, "skull, head", which concomitantly meant "them" in Sumerian [11, vol. 2, p. 899; 48, p. 295]. And since Babylonian astronomy construed every celestial body as a deity, each could assume the Sumerian logogram DINGIR/"god". We have repeatedly seen that the Sumerian logogram DINGIR also represented the Akkadian preposition δa /"which, of".

All told, the puns yield: U₃/U₆, MUL, DINGIR, U₃/U₆, A, E₃, TU₂₅, UGU, "Behold, the Star, Which, They-Saw, In, the East, Went-Before, Them" (Figure 16).

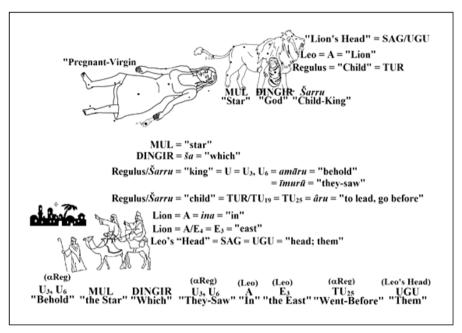


Figure 16. "Constellation"-writing in Leo and Regulus produced a direct correlation with the words used to describe the Christmas star's implausible behaviour in Matthew 2.11. (Elizabeth Hardy)

In Babylonian astronomy every celestial body is a DINGIR or ilu, "god", a dialectical variant of the latter being elu [11, vol. 1, p. 373]. And elu/"god" formed a homophone with elu, "over" [11, vol. 1, p. 200], which directly corresponds to Matthew's epano/"over". (Note that elu was a dialectical variation of the Akkadian ilu/"god", and elu was a dialectical variant of eli/"over".) The correlate to the Greek heōs/"until" was again embedded in Leo's brightest star, Šarru/"King". Šarru was equated with myriad logograms including EN, which also represented adi, "until". The correlate to the Greek elthon/"having-come" is found in logogram TUR ("Infant, Child"), which could be read DU₁₃, a homophone with DU, the logogram that represented the Akkadian verb *alāku*, "to come". The Greek verb "it-stood"/*estathē* can again be traced to Regulus. The word Šarru/"King" was equated with a vast number of Sumerian logograms including LU₂, which formed a homophone with LU, the logogram that represented the Akkadian verb uzuzzu, "to stand". The latter infinite verb could be rendered into the finite form izziz, "it-stood". A was also read ME₅, which phonated the Sumerian verb ME, "be", and could be conjugated as the preterit "was" [52, p. 83]. Finally, we have repeatedly seen that the Akkadian title for Regulus, Šarru ("King"), formed a homonym with *Šarru*, "Child". All tallied, the "constellation"-writing puns produce: EN, DU, LU, *Elu*, E₂, *Šarru*, ME, "Until, Having-Come, It-Stood, Over, Where, the Child, Was" (Figure 17).

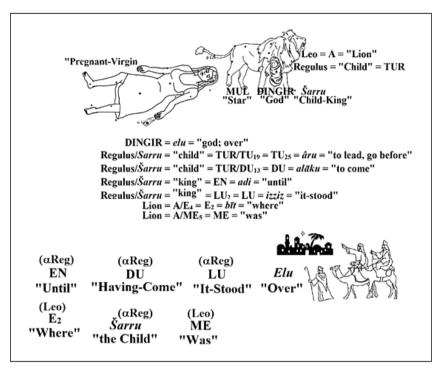


Figure 17. The Matthew 2.9 description of the star's scientifically impossible behaviour corresponds with *lumāši*-writing puns in Regulus and Leo. (Elizabeth Hardy)

9. Conclusions

The four Gospels were originally written to herald Jesus' adult ministry, and are collections of narratives that are purported to reveal his identity as the prophesized *Christos*/"Anointed-One", i.e., the Jewish monarch destined to guide a sovereign Hebrew nation into a Messianic Age of prosperity and peace. By the 80s A.D. officials from the Jewish Synagogue began to openly denounce Jesus' conception as illegitimate (John 8.41), nullifying early Christians' claims that Jesus was the Christ.

It seems possible that the anonymous authors of the Gospels of Matthew and Luke wished to counter this argument by reconstructing an account of Jesus' birth which proved that he was legitimate and divine. However, when Matthew and Luke set out to record the story of Jesus' parturition they ran into an obstacle that we today would consider an insurmountable challenge: neither evangelist possessed a scrap of eyewitness testimony from Jesus' birth. By modern scientific standards this absence of first-hand verification would have

erased any further exploration into Christ's nativity - as such conclusions could only be the product of conjecture or surmise.

Yet Matthew and Luke were not constrained by the modern-day expectation that history be based on eyewitness testimony. What the evangelists did have at their disposal two esteemed astronomical convictions that allowed them to reconstruct the "Nativity" experience of the Christ-child. One was the Hellenic conviction of *katasterismos* ("placing-among-the-stars"), which held that the constellations depicted scenes of momentous earthly events that had been transferred into heaven in the form of stellar tableaux. The other was the Mesopotamian perception of the constellations as hallowed "heavenly writing" that divulged inviolable truth through polysemy embedded in the constellations' cuneiform titles; a concept that was known as *lumāši*, or "constellation"-writing.

Hence, the author contends that when Matthew and Luke turned to the heavens they were expecting to find a still-frame depicting the momentous Christ-child's birth. Cuneiform and Greek astronomical documents labelled Virgo as Erû-Parthenos or "Pregnant-Virgin" constellation. Immediately west stood Regulus, the "Child-King" star. Just west of the Pregnant-Virgin (Virgo) and Child-King star (Regulus) stood the Manger, M44, the iconic prop from Luke's Nativity. Lumāši-writing wordplay in this astral tableau and adjacent constellations imparted the similar themes recorded in Matthew and Luke's "Birth" scenarios (i.e., Jesus' virgin birth), as well as their jolting disparities. renowned discrepancies include Luke's These declaration "constellation-sign" of the Christ-child was that he would be "wrapped-in-cloths and lying in a manger", and Matthew's assertion that "the star went-before them [the astrologers] until, having-come, it-stood over where the child was".

The proffered data suggests that Regulus may have embodied the "Star of Bethlehem" described in Matthew's Gospel; the star's astronomically impossible motion founded on polysemy encrypted as *lumāši*-writing in the constellation titles that appear when Regulus stands at the meridian when viewed from Bethlehem circa A.D. 85.

References

- [1] M.J. Geller, Z. Assyriol. Vorderasi., **87(1)** (1997) 60-64.
- [2] P. Kingsley, J. Roy. Asiatic Soc., **5(2)** (1995) 198-201.
- [3] R.E. Brown, *The Birth of the Messiah*, Doubleday & Co., New York, 1999, 167-170.
- [4] F.W. Danker (ed.), A Greek-English Lexicon of the New Testament and Other Early Christian Literature, University of Chicago Press, Chicago, 2000, 608-609.
- [5] G. Kittel, G.W. Bromiley and G. Friedrich (eds.), *Theological Dictionary of the New Testament*, vol. IV, Eerdmans, Grand Rapids, 1967, 358-359.
- [6] W.F. Albright and C.S. Mann, *Matthew*, *The Anchor Bible*, vol. 26, Doubleday & Co., New York, 1971, 11-16.
- [7] J.A. Fitzmyer, *The Gospel According to Luke I-IX, The Anchor Bible*, vol. 28, Doubleday & Co., Garden City, 1981, 408.

- [8] P.F. Gössmann, *Planetarium Babylonicum, order die Sumerisch-Babylonischen Stern-namen*, in *Šumerisches Lexikon*, vol. IV(2), P.A. Deimel (ed.), Verlag des Papstl. Bibelinstituts, Rom, 1950, 89-91.
- [9] E. Reiner and D. Pingree, *Babylonian Planetary Omens: Part Two*, in *Bibliotheca Mesopotamica*, vol. 2(2), G. Buccellati (ed.), Undena Publications, Malibu (CA), 1981, 13.
- [10] E. Reiner & M.T. Roth (eds.), *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*, vol. 17. Part 2, The Oriental Institute of the University of Chicago, Chicago, 1992, 317.
- [11] W. von Soden (ed.), *Akkadisches handwörterbuch*, vol. III, Otto Harrassowitz, Wiesbaden, 1981, 1217.
- [12] F.X. Kugler, Sternkunde und Sterndienst in Babel, vol. I: Babylonische Planetkunde, Aschendorffsche Verlagsbuchhandlung, Münster, 1907, 45, 279.
- [13] Aratus, *Phaenomena*, D. Kidd (ed.), Cambridge University Press, Cambridge, 1997, 215-216.
- [14] R.H. Allen, Star Names, Their Lore and Meaning, Dover Publication Inc., New York, 1963, 462.
- [15] H.G. Liddell and R. Scott, An Intermediate Greek-English Lexicon. Founded upon the Seventh Edition of Liddell and Scott's Greek-English Lexicon, Clarendon Press, Oxford, 1997, 727.
- [16] G.J. Toomer, *Ptolemy's Almagest*, Princeton University Press, Princeton, 1998, 366.
- [17] E.F. Weidner, *Handbuch der Babylonischen Astronomie*, J.C. Hinrichs'sche Buchhandlung, Leipzig, 1915, 137.
- [18] R. Borger, Mesopotamisches Zeichenlexikon, Ugarit-Verlag, Münster, 2004, 436.
- [19] D.N. Freedman (ed.), *The Anchor Bible Dictionary*, vol. **2**, Doubleday, New York, 1992, 312-317.
- [20] S. Safrai and S. Stern (eds.), *The Jewish People in the First Century*, vol. 1, Van Gorcum & Co. B. V., Assen, 1974, 446-449.
- [21] Hesiod, The Homeric Hymns and Homerica, Harvard University Press, Cambridge, 1970.
- [22] J.T. Townsend, Ancient Education in the Time of the Early Roman Empire, in The Catacombs and the Colosseum. The Roman Empire as the Setting of Primitive Christianity, S. Benko & J.J. O'Rourke (eds.), Judson Press, Pennsylvania, 1971, 139-163.
- [23] H. Cancik and H. Schneider (eds.), *Brill's New Pauly Encyclopedia of the Ancient World*, vol. 7, Brill, Boston, 2005, 33-34.
- [24] T. Condos, *Star Myths of the Greeks and Romans: a Sourcebook*, Phanes Press, Grand Rapids, 1997.
- [25] T. Barton, Ancient Astrology, Routledge, London, New York, 1994, 5.
- [26] F. Rochberg-Halton, Aspects of Babylonian Celestial Divination: the Lunar Eclipse Tablets of Enūma Anu Enlil, Archiv fur Orientforschung, Verlag Ferdnand Berger & Sohne Sesellschaft M.B.H., Horn, 1988, 5.
- [27] G. Vermes, The Nativity: History and Legend, Doubleday, New York, 2006, 9-17.
- [28] W.D. Davies, *The Setting of the Sermon on the Mount*, Scholars Press, Atlanta, 1989, 270-277.
- [29] J.L. Martyn, *History and Theology in the Fourth Gospel*, Harper & Row, New York, 1968, 31-40.
- [30] S.A.B. Mercer, *The Religion of Ancient Egypt*, Luzac & Co. Ltd., London, 1949, 271, 326.

- [31] J. McHugh, *The Celestial Code of Scripture: The Astral Cipher Underlying the Miracle Stories of the Bible and Qur'an*, Monkfish Book Publishing Company, Rhinebeck, 2021, xi-144.
- [32] F. Rochberg, *The Heavenly Writing; Divination, Horoscopy, and Astronomy in Mesopotamian Culture*, Cambridge University Press, Cambridge, 2004, 64, 163, 294, 299.
- [33] D. Brown, *Mesopotamian Planetary Astronomy-Astrology*, in *Cuneiform Monographs*, vol. 18, Styx Publications, Groningen, 2000, 33-36.
- [34] L.E. Pearce, *Babylonian Commentaries and Intellectual Innovation*, in *Intellectual Life in the Ancient Near East*, J Prosecký (ed.), Academy of Science of the Czech Republic, Prague, 1998, 335.
- [35] S.B. Noegel, *Nocturnal Ciphers: The Allusive Language of Dreams in the Ancient Near East*, American Oriental Society, New Haven, 2007, 37-38, 70-76.
- [36] A. Livingstone, Mystical and Mythological Explanatory Works of Assyrian and Babylonian Scholars, Clarendon Press, Oxford, 1986, 33.
- [37] W. Horowitz, Mesopotamian Cosmic Geography, Eisenbrauns, Indiana, 2011, 224.
- [38] W. Hartner, J. Near Eastern Stud., **24(1-2)** (1965) 2.
- [39] W.G. Lambert, A Late Assyrian Catalogue of Literary and Scholarly Texts, in Kramer Anniversary Volume; Cuneiform Studies in Honor of Samuel Noah Kramer, B.L. Eichler (ed.), Verlag Butzon & Bercker, Kevelaer, 1976, 313-318.
- [40] J. Huehnergard, A Grammar of Akkadian, Scholars Press, Atlanta, 1997, 107-111.
- [41] E. Sollberger, Iraq, **XXIV** (1962) 63-72.
- [42] E. Reiner, T. Am. Philos. Soc., **85(4)** (1995) 5.
- [43] M. Roaf and A. Zgoll, Z. Assyriol. Vorderasi., 91(2) (2001) 266.
- [44] I.L. Finkel & J.E. Reade. Z. Assyriol. Vorderasi., 86(2) (1996) 244-265.
- [45] J.E. Reade, Baghdader Mitteilungen, 10 (1979) 35-46.
- [46] A.R. George, *The Babylonian Gilgamesh Epic. Introduction, Critical Edition and Cuneiform Texts*, vol. 1, Oxford University Press, Oxford, 2003, 86-87.
- [47] J. Bottéro, Les noms de marduk, l'écriture et la "logique" en mésopotamia ancienne, in Memoirs of the Connecticut Academy of Arts & Sciences; Essays on the Ancient Near East in Memory of Joel Jacob Finkelstein, vol. XIX, M. de Jong Ellis (ed.), Archon Books, North Haven, 1977, 5-28.
- [48] J.A. Halloran, Sumerian Lexicon, Logogram Publishing, Los Angeles, 2006, 249.
- [49] A.W. Sjöberg and E. Leichty (eds.), *The Electronic Pennsylvania Sumerian Dictionary*, University of Pennsylvania, Philadelphia, 2006, online at http://psd.museum.upenn.edu/epsd/nepsdframe.html.
- [50] B. Landsberger and R.T. Hallock (eds.), Das vokabular Sa, in Materialien zum Sumerischen Lexikon, vol. III, Sumptibus Pontificii Instituti Biblici, Roma, 1955, 63.
- [51] H. Hunger and D. Pingree, MUL APIN; an Astronomical Compendium in Cuneiform, Verlag Ferdinand Berger & Söhne Gesellschaft M.B.H., Horn, 1989, 21.
- [52] D.O. Edzard, Sumerian Grammar, Society of Biblical Literature, Atlanta, 2003, 31.