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PLEIADES IN ANCIENT MESOPOTAMIA

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ABSTRACT

In this paper I will analyse the different features of the Pleiades in the astronomical, astrological, and calendrical interpretation as well as their mythical and cultural background in ancient Mesopotamia. According to cuneiform sources, the Pleiades are among the most important stars. They are simply known in Sumerian as "the Stars" (MUL.MUL), while their Akkadian name, "the Bristle" (*zappu*), links them to the imagery and the cultural context of the "Bull of Heaven" constellation (Taurus), to which they belong. Pleiades are frequently depicted as seven dots or seven stars, and identified on a mythological level with groups of seven divine beings. In fact, the Sumerian ideogram for "seven" is used as an alternative name for the Pleiades. In particular they show a close relation to a group of demons, called the Seven (Sebēttu), that, according to an etiological myth, causes the eclipse of the moon. The relation of the Pleiades to the war and death sphere is strengthened by their association with the Netherworld god Nergal/Erra, as well as their identification with the god's planet (Mars). Finally, the Pleiades are among the few celestial bodies that receive a cult, and specific prayers are dedicated to them. From the sources it emerges that the Pleiades are mainly related to the movement of the Moon, and it is worth noting that the list of constellations of the ecliptic begins precisely with the Pleiades. Furthermore, the Pleiades play an important part in the calendrical reckoning, a role that is clearly stated in almanacs as the MUL.APIN, as well as in the intercalation scheme based on the conjunction of the Moon and the Pleiades.

KEYWORDS: Pleiades, Mesopotamia, Babylonia, calendar, seven, zodiac, mythology.

1. NAMES OF THE PLEIADES

The Pleiades are known in Mesopotamia through the Sumerian name MUL.MUL “the stars”. This term is known only from Assyrian and Babylonian sources, particularly from the 1st millennium BCE. In fact the later tradition in Akkadian language adopted Sumerian terms for the stars and constellation names, while we have few or no references at all to them in Sumerian sources.

Lexical documents equate the Sumerian term MUL.MUL “the stars” to the Akkadian *zappu* “bristle” (Gössmann, 1950: no. 279; Kurtik, 2007: m35), which is however seldom mentioned in astrological and astronomical texts as well as in literature. The term “Bristle” relates this group of stars with the mane of the Taurus constellation. Taurus, which is called “The Bull of Heaven” (GU₄.AN.NA; Gössmann, 1950: no. 77; Kurtik, 2007: g33), may be identified with the homonym mythical being. In the Gilgamesh Sumerian tale *Gilgamesh and the Bull of Heaven* and the related episode of the Akkadian epic (Tablet VI), the goddess Inanna/Ištar makes the gigantic bull come down from the sky to punish Gilgamesh (fig. 1; George, 2003: 47-54, 166-175).¹



Figure 1. *Gilgamesh and Enkidu killing the Bull of Heaven* (Old Babylonian terracotta plaque; VA 5392)

The central section of a Uruk tablet from the Seleucid period (fig. 2) kept at the Vorderasiatische Museum in Berlin (VAT 7851; Weidner, 1967: 12-15) bears three figures. The first one represents seven stars in the middle of which the Sumerian ideogram for the Pleiades (MUL.MUL “the Stars”) is written. The second figure is a man inscribed in the lunar circumference (Beaulieu, 1999). The third figure is a rampaging bull of the zebu type (*Bos indicus*) to be identified with the Taurus; on his back are visible the bristle, that is to say the Pleiades.

The Pleiades may stand as a *pars pro toto* of the Taurus constellation and thus appear in the Zodiac in substitution of the Taurus.

¹ For Sumerian and Akkadian literary passages quoted or discussed in the article see Foster, 2005; Verderame, 2016; and the website of *The Electronic Text Corpus of Sumerian Literature* (= eTCSL, <http://etcsl.orinst.ox.ac.uk/>).

2. THE PLEIADES AND THE NUMBER SEVEN

The equivalence of the Pleiades with the number seven² and particularly with seven divine beings is widespread (Avishur, 1973; Greenfield, 1985; Hehn, 1907; Reinhold, 2008).

The reference to the number seven and the caption of the Seleucid tablet discussed above allows the identification of the seven dots symbol as the Pleiades, at least in the late first millennium tradition (van Buren, 1939/1941; van Veen, 2008). The seven dots are a frequent iconographic motif that we find particularly on cylinder seals.

2.1. The divine heptad

In ancient Mesopotamia seven is a symbolical number, expressing perfection and completeness, thus several groups of beings are counted as seven in number, starting from the seven main gods of the pantheon, the seven mother goddesses, the seven brothers of Ištar, etc. (Verderame, in press (b)).

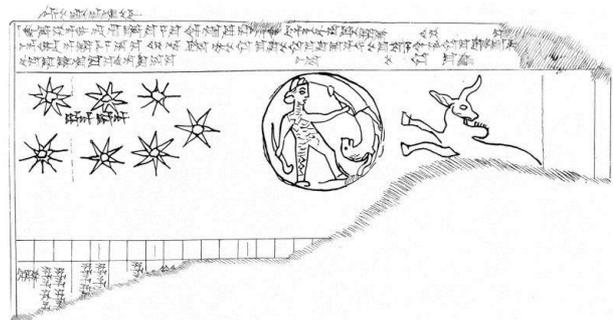


Figure 2. *Seleucid tablet (VAT 7851)*

Among these heptads, the Pleiades are identified in first instance with the seven major gods of the pantheon, namely the three main gods An, Enlil, Enki/Ea, and the three astral gods (moon, sun, Venus), plus a seventh god, often the mother goddess Ninhursaga or the Netherworld goddess Ereškigal. These are referred to in the expression “the seven great gods” identifying the Pleiades in several references among other in the *Astrolabe B* and the *MUL.APIN*:

The Stars (Pleiades), the seven great gods.
(*MUL.APIN* I i 44)

Month Ayāru (II), the Bristle (Pleiades),
the seven great gods.
(*Astrolabe B* §17)

² For the six visible Pleiades and the lost seventh discussed by Aratus, Ovid, and other classical authors see Kelley et al., 2011: 141-143.

An omen quoted in a Neo-Assyrian report clearly shows the association of the Pleiades with the seven great gods who periodically gather to establish the fates of humankind. In fact the protasis of the omen mentions the Pleiades with the epithet the “seven great gods” and the apodosiis refers to the divine assembly where the destinies of the country are established:

[If in] the month Ayāru (II) the Stars (Pleiades) - [the seven] great [gods - rise] at [their] appropriate time: the great gods will gather and make a favourable [decision about the land]; sweet [winds] will blow.

(Hunger, 1992: no. 275 ll. 6 - r. 3)

Usually the reference to seven divine beings is uncritically interpreted as an association with the group of demons known as the Seven, which I will discuss in brief. Philological and theological arguments, however, show that only part of the references to divine heptads in relation with the Pleiades may allude to the Seven demons. In fact the expression «the seven great gods» (^d7(IMIN).BI DINGIR.MEŠ GAL.MEŠ) refers only to gods and even if the Seven demons are seldom preceded by the divine determinative (^d), they are not properly gods (Verderame, 2012).

2.2. The seven demons (Sebēttu)

The latter is a group of demons known as the Seven, Sebēttu in Akkadian or, according to an old but still diffused reading, Sibitti.

They have been generated by the union of the sky god An and the earth (Uraš) , being assigned to the Netherworld gods Erra and Nergal as assistants, as well as accompanying them in war; in this role, however, they may appear at the side of other gods (Marduk’s fight against Tiamat in the *Poem of creation*) and even human heroes (Gilgameš expedition to the Kur in *Gilgameš and Huwawa*). In the *Poem of Erra*, also known as *Erra and Išum*, they are the ones who, restless and bored by their pacific way of life, spur the god Erra to go back to the battlefield. Išum, minister of the Netherworld god Erra, is the guardian of the Seven; he is said to be a «door bolted before them» (*Poem of Erra* I 27).

In the Sumerian hymn to the god Hendursaĝa - a Sumerian god later identified with Išum - the god is celebrated under different aspects: as a night guardian; as an infernal god; as protector of people revering their personal god; and as counsellor of Utu in the matter of purchasing goods. In his duties the god is assisted by three heptads. The first seven beings are described as warriors with animal features; the

second group is constituted by female goddesses; the third is a band of water beings generated by the mating of the water god Enki with a corpse. The first heptad, the seven beings described as magical animals or as having animal features, assists the god patrolling the streets at night (Verderame, in press (b)). This may be the earliest reference to the Seven demons, underlying even their association with the starry night:

In summer, to make suitable the sleeping on the roof, the Seven of the herald stay at his side and
prowl around the roofs of the country

...

On this very day, as evening approaches, the first is (like) a fox that drags/shuffles its tail,
the second being sniffs like a domestic dog,
the third, like a raven, (its) *bite pecks larvae*,
the fourth overwhelms like a huge carrion devourer vulture,
the fifth being, although not a wolf, falls upon black lambs,
the sixth being hoots like an *owl*, which resides in ...,
the seventh being is (like) a *shark* (that) darts across the waves

(*Hymn to Hendursaĝa* 46-48, 77-84)

The successive paragraph describes these seven beings through a series of epithets and images usually associated with demons (Verderame, in press (b)). The animal traits attributed to the Seven in this early tradition remained in their iconography, known mainly from the plaques against the Lamaštu demon (fig. 3), where the Seven, together with the “king” of the demon hordes, Pazuzu, are summoned to fight against the Lamaštu and drive her back to the Netherworld.



Figure 3. Particular of the Lamaštu bronze plaque kept at the Louvre (AO 22205)

Another myth preserved in the sixteenth tablet of the incantation series *Evil spirits* (UDUG.HUL) de-

scribes the plot of Ištar to conquer the leadership of Heaven. With the support of the sky god An and the complicity of Adad and Šamaš, the goddess plans to darken the moon, that is to say to provoke an eclipse, that will be fulfilled by an attack of the Seven demons.

The moon, sun, and Venus were appointed to administer the base of heaven, and together with Anu (Enlil) shared amongst them the rule of the whole of heaven. To the three of them, his divine children (i.e., Šin, Šamaš, Ištar), it was they whom he ordered to be present night and day without cease.

Ishtar plots the eclipse of the moon (Šin), at that time, the Seven of them were evil gods who were whirling about in the base of heaven, they kept circling furiously in front of the crescent moon.

Once the hero Šamaš and valiant Adad were deflected, Ištar, together with Lord Anu, occupied the holy residence and was plotting against the rule of heaven.

(Now) Anu was lord and father of the supreme gods, without whom judgment [could not be rendered]. At that time, the Seven of them were [messengers of their lord Anu]. From the very beginning, they are evil [.....] up to the height of heaven

(*Evil spirits* XVI 25-36)

The *historiola* is functional to explain the cause of the eclipse and offer the mythic background necessary to ground the ritual to counteract this evil-portending omen. In fact the intervention of Marduk will re-establish the order and at the same time provides an apotropaic ritual for the king in case of a lunar eclipse.

No surprise thus that the Pleiades are equated with the Seven demons and are often associated with the Netherworld god astral form, the planet Mars, and its different names and aspects (Reynolds, 1998). In the Mesopotamian interpretative system, equivalences were based on theological and scholarly associations leading to the identification of stars and constellations with gods and planets (Brown, 2000: 70-81). The Pleiades are mainly quoted as a learned name for Mars, as the following commentaries quoted in a Neo-Assyrian reports show:

[If the Pleiades] come close to the moon, [enter it], and come out: [the king...] will exercise supreme power.

– [The Pleiades] will come close to the moon.

[*Sin*] sent a good [*sign* to the king my lord].
[The Pleiades are (equivalent to)]
Mars.....[.....].»

(Hunger, 1992: no. 50 ll. 1-9)

If the Pleiades come close to the front of the moon and stand there: the great gods will ... for the better understanding of the land.

Sin interceded for the king with the gods; the king is safe.

If the Field star comes close to the front of the moon and stan[ds] there: in that [year] ... [...], variant: [there will be] an attack of [the enemy].

The Pleiades are (equivalent to) [*Mars*]; this night the moon approa[ched...].

From Nabû-ahhē-eriba.

(Hunger, 1992: no. 72)

If the Pleiades flare up and go before Venus, in the morning [...] the city *will be encircled*. (As) planet Pleiades is Mars.

(Hunger, 1992: no. 63 ll. r. 5-8)

It should be noted, in fact, that most of the phenomena related to the Pleiades in the protases of omens are those of a planet (to move, to “flare up”). In the apodoses, the Sebēttu demons’ bellicose nature marks the omens, portending the exercise of power, attack of enemy, the siege of a city, etc.

3. PLEIADES AND THE CALENDAR

Apart from the theological associations and the astrological interpretations, Pleiades play a main role in Mesopotamian celestial lore as time reckoner.

3.1. The month *Ayāru*

The rise of the Pleiades is fixed in the second month of the Babylonian calendar *Ayāru* (April/May). It should be noted that the Sumerian name of the month, *gu₄.si.sá* («driving the ox(en)»; *gu₄* “ox, bull”) recalls the name of the Taurus constellation. In some of the passages discussed above, Pleiades phenomena are associated with the month *Ayāru*. The *Astrolabe B*, a late bilingual almanac, reports:

Second month (*gu₄.si.sá*) / *Ayāru*: the Stars / Bristle (Pleiades), the seven great gods; the earth is open and the oxen are driven, the field is open, the plows are washed; month of the god Ningirsu, the hereof, the great farmer of Enlil

(*Astrolabe B* 10-23; Casaburi, 2003: 30-32)

It should be noted that the month name $gu_4.si.sá$ is related to the activity of this month, “to drive the oxen” ($gu_4 \dots si.sá$) to the field for the preparation of the soil for the sowing, as recorded in the Sumerian version of the astrolabe. The rising of the Pleiades at the beginning of the second month is mentioned in the *MUL.APIN* as well:

On the 1st of Ayāru the Pleiades become visible

(*MUL.APIN* ii 38)

Later in the astrolabe the rising of the Pleiades in the second month is a good omen foretelling a good harvest, a favourable price for the cereals, and happiness in the country (*Astrolabe B* §148). The connection between the rising of the Pleiades in their appropriate time (Ayāru) and a good harvest is recalled in several omens, as the one quoted above (Hunger, 1992: no. 275 ll. 6 - r. 3).

All these elements relate the Pleiades, or at least their rising, to the beginning of the agricultural activities after the winter pause. The patron of the second month of the calendar (Ayāru) is Ningīrsu/Ninurta, god of war and agriculture. He is claimed to be the author of an agricultural manual, called *The farmer's instructions*. Considering the association of the Pleiades with the second month, we may wonder if the reference in this text to the rise of “star(s) of the sky” may refer to the Pleiades. As we have seen, their rising in the second month is the moment when the oxen are driven to the field to begin the tillage, as it is mentioned in the *Farmer's instruction* as well:

When the constellations in the sky are right, do not be reluctant to take the oxen force to the field many times.

(*Farmer's instructions* 38-39)

A further omen draws a closer relation between the Pleiades and the second month Ayāru. It is one of a list of omens related to the presence of a star in the Moon's halo (Verderame, 2014):

If the moon is surrounded by a halo, and the Stars (Pleiades) stand in it: in Ayāru (II) pregnant women will give birth to male children; the king of the world's land will defect from him and ... [...]. The Stars (Pleiades) (are equivalent to) Šalbatānu (Mars) [...] of Mars [...] the Pleiades [...].

(Hunger, 1992: no. 376 ll. 6 - r. 1)

The presence of the Pleiades in the moon's halo foretells the birth of male children in the month

Ayāru, relating indirectly the stars in the protasis to the month in the apodosis. Furthermore, the sender of the report, Nabû-šuma-iškun, mentions in his commentary the equivalence between the Pleiades and the planet Mars, providing thus an interpretation of the phenomenon recorded in the protasis: Mars stands in the halo of the moon.

3.2. Pleiades intercalary scheme

The rising of the Pleiades is used as a reckoning device in the calendrical intercalation systems, the so-called Pleiaden-Schaltregel (Papke, 1984; Pingree, 1984; Koch, 1997). *MUL.APIN* records a scheme based on the conjunction of the Pleiades and the Moon:

If on the 1st of Nisānu (I) the Pleiades and the Moon are in conjunction, this year is normal,

if on the 3rd of Nisānu (I) the Pleiades and the Moon are in conjunction, this year is a leap year,

if the Pleiades become visible on the 1st of Ayāru (II), this year is normal,

if the Pleiades become visible on the 1st of Simānu (III), this year is a leap year,

(*MUL.APIN* Gap A 8-11)

This is, however, not the unique intercalation scheme based on the Pleiades (Parpola, 1983: 45, 186, 285, 342).

The discussion about the interpretation of the term *šitqulu* “to be in equilibrium, in conjunction” and such schemes has produced abundant literature. What interests me more to highlight here is the relation of the Pleiades with the calendar. In fact, besides all these schemes, the final decision to alter the calendar with the introduction of a thirteenth month pertained only to the king (Verderame, in press (a)). He is the one who had the power and responsibility of the consequences that such a change could have on the religious and administrative life of the kingdom. Anxiety about these changes is clearly expressed in the numerous reports (Hunger, 1992) sent by or to the Assyrian king asking or confirming the beginning of the month or intercalation.

4. REFERENCES TO PLEIADES IN TEXTS

4.1. Neo-Assyrian letters and reports

Despite the crucial role played by the Pleiades in the calendar and thus the frequent references to them in almanacs and astrolabes, those in observational texts are by comparison very few.

If the Pleiades [enter the moon]: the land will perish all together; a month will pass, the enemy [...] Elam. If the Pleiades enter the moon [and] come out towards the north: Akkad will become happy; the king of Akkad will become strong and will have no rival.

– The north wind blows.

Since the moon entered the Pleiades, the north wind is blowing. The morning watch (means) Elam; this is bad for the enemy.

If the Pleiades are elongated: the field will produce a yield. – At the conjunction of the moon [(the Pleiades) go in front]. May the lord of kings be eve[r]lasting! From Ašarē[du] the y[ounger].

(Hunger, 1992: no. 351)

In most of these cases the omen is related to an observation of the planet Mars, thus the Pleiades - "Stars" or "Bristle" - are used as a learned name of the latter. This is the case also of the unique Pleiades-related omen quoted in a letter sent to the Assyrian king Esarhaddon:

If the Pleiades flare up and go before Venus, in the morning[...] the city *will be encircled*.

(As) planet the Stars (Pleiades) is Šalbatānu (Mars).

(Parpola, 1993: no. 63 ll. r. 5-8)

In the reports we mainly find the Pleiades used as a learned name for Mars in omens related to the conjunction with the Moon, entering its halo (see above), or approaching to another planet or constellation.

4.2. Non-astronomical / astrological texts

4.2.1. Sumerian literature

References to the Pleiades in IIIrd. millennium Sumerian literature are limited to the two passages from the hymn to Hendursaġa and in the *Farmer's instructions* quoted and discussed above. In the former case the Pleiades are possibly related to the seven "demonic" beings who assist the god Hendursaġa at night; in the latter case the Pleiades are related to the calendar and marks the beginning of the agricultural cycle.

4.2.2. Prayers

Six hand-lifting prayers (*šu'ila*) to the Pleiades are known. Most of them are unfortunately only partially preserved. Neo-Assyrian letters mention the performance of prayers and offerings to the Pleiades as well as to other stars and constellations.

3 ('hand-lifting' prayers to be recited) before the moon, 3 before the [Pleiades], ...

(Parpola, 1993: no. 240 l. 6)

Another letter, instead, mentions a series of burnt offerings to planets and stars, among which the Pleiades:

[Concern]ing the stars [about which the king wrote to] me, [(saying): "Before] Jupiter, Venus, Saturn, Mercury, Mars, Šin, Šamaš, Bel-mātāti, Sirius, Antares, Bēlet-balāti, the Stars (Pleiades), the Seven and Išum – before these gods let them make burnt offerings" – They should at the same time make small ones before Nergal, [be]cause of [...]

(Cole et al., 1998: no. 72 l- 6)

Here the offerings to the Pleiades are followed by those to the Seven demons (Sebēttu) and to Išum, assistant of the Netherworld god Erra/Nergal; to the latter are presented smaller offerings that should be performed at the same time of the offerings to the heavenly bodies. The passage recalls the relation of the Pleiades with the Seven demons and the Netherworld gods as well as to the general war context as it appears in the *Poem of Erra* discussed above.



Figure 4. Particular of the Esarhaddon stele found at Zincirli

It should be mentioned the reference to the Pleiades in the *Prayer to the gods of the night*. This is a prayer pronounced by the diviner before the examination of the viscera of the sacrificial animal. At night, when the celestial gods are retired, the diviner summons the gods of the night for they may give a reliable answer to the mantic query he is performing. These gods of the night are the stars and constellations, of which the Pleiades are part.

The *historiola* about the demons' attack to the moon recorded in a passage of the *Evil spirits* (see above), may be the base of a brief reference in a late

Assyrian esoteric commentary, where Marduk is said to have vanquished Anu and the Pleiades, the sons of Enmešarra.

The 19th day, which they call the Silence, is when he vanquished Anu and the Pleiades, the sons of Enmešarra.

(Livingstone, 1989: no. 40: 5, 21)

In the Neo-Assyrian period the Seven demons and their astral aspects, the Pleiades, receive particular attention. They have even a temple in Dūr-Šarrukīn (Khorsabad). The aspect on which the later tradition focuses is that of fierce warriors. As they accompany the war god in battle, thus they assist the Assyrian king in the same way. Marduk, the god of Babylonia, adopted as main god by the later Assyrian kings and with whom the latter identify themselves, is accompanied in the military campaign and the battlefield by the war god Erra/Nergal and the seven demons (Sebēttu), often identified by their astral aspect, the Pleiades.

On your left is Erragal, the strongest one of the gods, in front of [you go] the valiant Pleiades!

(*Acrostic hymn to Marduk*; Livingstone, 1989: no. 2 l. r. 4)

4.2.3. Treaties

The relation of the king with fierce warriors, the Seven/Pleiades, involves the latter being usually mentioned among the gods summoned as witnesses and punishers of the transgressors in the treaties.

May the Pleiades, the divine warriors, smite you down with their fierce weapons.

(*Treaty of Esarhaddon with Baal of Tyre and Esarhaddon Vassal Treaty*; Parpola et al., 1988: no. 5 l. r. iv 5, no. 6 l. 464f.)

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By Aššur, Šamaš and [Enlil], the Assyrian Ištar, Adad, Nergal, Ninurta and the Seven (Pleiades), all these great gods of Assyria, a future prince shall not cast aside the wording of this document.

(*Grant of Adad-narari III*; Kataja et al., 1995: no. 10 l. r. 6)

The seven dots often appear as a protective symbol on monuments such as stele or royal grants of this period (fig. 4).

5. CONCLUSIONS

In conclusion, the main role of the Pleiades is that of a time reckoner. Their rising in the second month marks the beginning of the agricultural activity, their conjunction with the moon at the beginning of the first month may indicate if that year needed to be intercalated or not.

On the interpretative level the role of the Pleiades in the Mesopotamian celestial lore is based on the mythological and theological background of two groups of seven divine beings with whom they are identified. This results in two opposite aspects.

One is celestial and positive. The Pleiades are associated with the main divine gods who sit in council and establish the fates of the country. So in omens, the Pleiades forecast positive responses in relation to the harvest and the fate of the country.

The other aspect is infernal, nocturnal, and destructive. The Pleiades, when identified with the Seven demons (Sebēttu), show their relation to war and the Netherworld: the omens thus forecast war, devastation, and so on. A final remark, that would need further investigation, is that war as agriculture was a seasonal activity and the rise of the Pleiades may well have been marked the beginning of both fieldworks and military campaigning seasons.

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