The Door of Mher: The Urartian Deities as Constellations*

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Abstract

This article is about the Urartian inscription on the rocky hill named "Door of Mher", which is located in the vicinity of the modern-day city of Van and on which the pantheon of the Kingdom of Van — the names of deities and the quantities of sacrifices (goat, bull/cow, ram/sheep) prescribed for the deities — is presented, and the quantities of these sacrifices were prescribed during the celebration of the month of Sun. For those involved in Urartian studies, the identities of the deities as well as the logic behind the structure of their sequence have been considered unknown. However, as a result of comparative examination, it turns out that the deities of the Kingdom of Van are first and foremost deity-constellations and, most importantly, they are constructed based on the sequence of the heliacal rising, like the II and IV calendar lists with the Mesopotamian name Mul.Apin.

Keywords: Urartu, Van, Mul. Apin, heliacal rising, constellations, Door of Mher, Haldi.

1. Introduction

Dating back to the 9th century B.C., carved on the frontal part of the rocky hill named Agravakar (Raven stone) and located near city of Van, the Urartian inscription "Door of Mher" or "Gates of the god Haldi" is exclusive because it represents the complete pantheon of the empire which is known to us by the name of Urartu, with the names of all the deities and the sacrifices — quantities of bulls and rams — defined for those deities (see the corpus of the inscription in Appendix).

Today, experts on Urartu believe that the inscription "Door of Mher" is merely about the sacrifice of bulls and rams that was made for the deities during the ritual celebration in the SOLAR month. However, within itself, the inscription "Door of Mher" contains the integrity of the mathematical, geometric and, most importantly, the astronomical and calendrical knowledge of Urartian priests (Armin (2020) 66-165).

In the ancient world, it was accepted that deities are also celestial luminaries, and this very fact is clear to see even back in the Sumerian times. The deity Inana was the planet Venus, the Haya deity — the "Aquarius" constellation, Ninurta — the planet Mercury, etc. This was the same in the Greek system: Zeus was the planet Jupiter, Hermes was the planet Mercury, Cronos was the planet Saturn, etc. The Urartians had the same approach, in the "Door of Mher" inscription the gods are the heliacal rising constellations.

In ancient times, astronomy served as a way of measuring time and creating a calendar. During the days of the year, based on heliacal rising, people would measure time and set a schematic calendar consisting of 360 days. This was referred to as the arrangement of heliacal rising, and it is evidenced by the star charts by the name of the Mesopotamian Mul.Apin (lists II and IV) (Hunger & Pingree (1999) 65).

^{*}The discoveries featured in the article are extensively presented in the book (Armin, 2020)

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2. Description

In 1995, a bronze shield from Anzaf Fortress (the shield is broken, nearly $^{1}/_{4}$ of it is preserved) portraying the deities of the Kingdom of Van standing on animals, was discovered. According to several scholars, and, from my standpoint, the sequence of the deities portrayed on the shield and the sequence of the first 12 deities in the "Door of Mher" inscription, are the SAME.

Several specialists share the opinion of O. Belli (1999), according to which the triple main deities on the Shield of Anzaf Fortress (Haldi, Teisheba and Khutuini), and their 8 succeeding deities (starting from Khutuini and ending with Melardi) correspond to the chart of the pantheon in the "Door of Mher" inscription (Belli (1999) 37-47). However, there are also researchers, i.e. P. Zimansky (2012), who assumes that the guiding deity on the shield is the king of Urartu, not the supreme god Haldi. I fully share the criticism of S. Ayvazyan (2017) according to which the assumption of P. Zimansky (2012) is arbitrary and does not derive from the content of the Urartian texts because in those texts it is clearly stated that it is Haldi who always guides the Urartian troops. There are also other groundless opinions, i.e. the assumption of S. Petrosyan (2007) according to which the guiding deity on the shield is Shivin instead of Haldi because the one guiding the 12 deities on the shield is portrayed in a flaming circle, with solar rays.

I completely agree with the common approach of M. Dara (2015), N. Tiratsyan (2008), A. Zakyan (2019) according to which, in the images of the deities on the Shield of Anzaf Fortress, it is necessary to attach importance to and examine the elements of the animals on which the deities are mounted and the weapons of the deities. In this regard, what is worth mentioning is the thorough examination by K. Jakubiak (2011) of the elements of the images of the animals portrayed in the Shield of Anzaf Fortress, and especially the emphasis on the scorpion-like tail of the mythical animal on which the 4th deity (Khutuini) is mounted, which, based on my estimation, is a very important consideration. However, I believe that K. Jakubiak (2011), like O. Belli (1999) and the others, also fails to pose the most important question — why are the deities presented in exactly this sequence in both the "Door of Mher" inscription and in the pictogram of the "Shield from Anzaf Fortress"? My perspective is as follows: it is impossible to draw correct conclusions about the identity of this or that deity without finding the logic behind the sequence of the deities of the pantheon.

3. Structure and Examination

The sequence of deity-constellations — mentioned in the "Door of Mher" inscription — corresponds to the sequence of deities in the "Shield of Anzaf Fortress" pictogram discovered in 1995 (Figure 1), and it is based on the heliacal rising of constellations, like the II and IV calendar lists of the Mesopotamian Mul.Apin (Hunger & Pingree (1999) 65). The differences of the sequence of deity-constellations in the "Door of Mher" inscription and in the II and IV calendar lists of the Mesopotamian Mul.Apin is that the deity-constellations defining the four seasons of the year (Summer and Winter solstices, Vernal and Autumnal equinoxes) in the 4^{th} - 3^{rd} millennia B.C. are removed from the series of heliacal rising of constellations in the "Door of Mher" inscription and are placed in the beginning of the series, and, starting from the 4^{th} deity — Khutuini/Baktuni¹ standing on the mythical animal with the tail of a Scorpion, all the deity-constellations are arranged based on the sequence of heliacal rising, just like the II and IV calendar lists of the Mesopotamian Mul.Apini are arranged.

3.1. Astronomical approach: discovering the identities of the first four deities in the series of the corpus

When the structure of sequence of the deities in the "Door of Mher" inscription becomes clear, the identities of the deities also become clear, i.e. the identity of HALDI, the main deity of the pantheon. The following are portrayed on the Shield of Anzaf Fortress — Haldi in the front, and TEISHEBA, SHIVIN AND KHUTUINI proceed after him, standing on animals, and they clearly instruct the "Leo", "Taurus" and "Scorpio" constellations. "LEO is the constellation defining the Summer solstice, the

¹Huṭu=(i)ne), based on another reading — Baqṭu=ine. (See Davtyan (2004) 62 (footnote))

TAURUS — the Vernal equinox, the SCORPIO — the Autumnal equinox. And so, if we have these three constellations enshrining the start of the seasons of the year, then Haldi is the AQUARIUS constellation enshrining the Winter solstice." Thus, the identity of HALDI deity is established; he is the famous ^dEN-KI/EA deity from the Sumerian times, representing the AQUARIUS constellation (Figure 2).

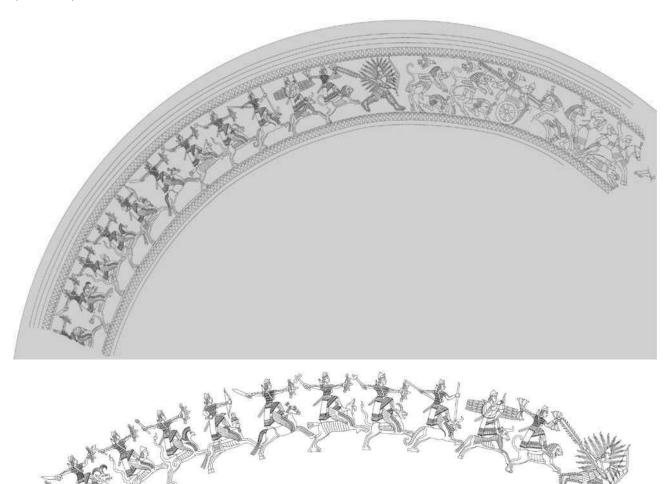


Figure 1. A bronze shield from Anzaf Fortress showing Urartian deities.

The "Aquarius", "Leo", "Taurus" and "Scorpio" deity-constellations are the constellations defining the solstices and equinoxes of the year (Figure 2). But there is a problem here. In order from the person viewing from the Armenian Highland on the Winter and Summer solstices, as well as on the days of the Vernal and Autumnal equinoxes, and the researcher — a short while before the sunrise — sees the TAURUS, LEO, SCORPIO and AQUARIUS constellations rising above the horizon, the person or the researcher had to have lived 6-4,000 years before us, that is to say, 4^{th} and 3^{rd} millennia B.C. However, the "Door of Mher" inscription is dated 1^{st} millennium B.C. when, according to the pattern of precession, the Winter equinox began with the "Capricorn" constellation, not "Aquarius", the Summer solstice began with the "Cancer" constellation, not "Leo", the Vernal equinox began with the modern-day "Ram" constellation, not "Taurus", and the Autumnal equinox began with the "Libra" constellation, not "Scorpio". And so, the question is the following: why did the priests of the Kingdom of Van wedge the four main deities as *Haldi-Aquarius*, *Teisheba-Leo*, *Shivini-Taurus and Khutuini-Scorpio*?

The answer is very clear. In the times of Urartu, the much older system was deemed to be sacred, and they inscribed the sacred system on the rocky hill named Agravakar. For instance, even today, in the 21^{st} century, we celebrate Christian holidays, which correspond to the system that existed 2,000

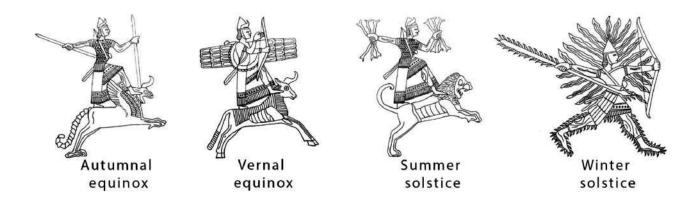


Figure 2. The god-constellations prescribing the four seasons of the year in the 4^{th} - 3^{rd} millennia B.C. (Winter and Summer solstices, Vernal and Autumn equinoxes).

years before us — we celebrate Christmas, Easter, the Revelation of Christ, etc. It was the same in ancient times as well — older system, which was established approximately 3,000 years before the times of Urartu, was deemed to be sacred. Moreover, this sacred system is even reflected in Christian theology. In the Book of Revelation, the description of the creatures standing on the four sides of the Throne of God the Father (Bull, Lion, Eagle and Man) is the system with constellations of equinoxes and solstices that existed 5-6,000 years before us, just like in the Urartian pantheon. It is just that in the Old and New Testaments (Ezekiel 1:1–28; Daniel 7, New Testament, Revelation 4:6–8), instead of the constellation "Scorpio", a vulture was chosen: the deity-constellation Nergal/Angegh (Cygnus) (Armin (2023) 207), which represents the western gate as in the Urartian pantheon. It is necessary to add that, among Armenians, the god of the underworld Nergal diety was referred to as Angegh (in Armenian - vulture), and in the 5^{th} century, in the first Armenian translation of the "Holy Bible" (compare 2 Kings 17:30), it was translated with the old Armenian name, which, in the Urartian "Door of Mher" inscription and in the pictogram "Shield of Anzaf Fortress", corresponds to the d Ú-a (Wa) deity (Armin (2023) 207) standing on the panther-vulture.

Now, let us present the star lists of the schematic year (from months VIII to XII) with the Mul.Apin II and IV deity-constellations, comparing them with the "Door of Mher" inscription and the pictogram of the preserved piece of "Shield of Anzaf Fortress" (Table 1).

3.2. Differences and sameness of the structure and arrangement of deity - constellations in the "Door of Mher" inscription and the Mesopotamian Mul.Apin II list

- 1) Unlike the II chart of Mul.Apin, in the "Door of Mher" inscription and in the pictogram of "the Shield of Anzaf Fortress", the god-constellations prescribing the four seasons of the year in the 4^{th} - 3^{rd} millennia B.C. (Winter and Summer solstices, Vernal and Autumnal equinoxes) are removed from the row of heliacal rising of deity-constellations and are placed in the front of the row, and after the 4^{th} deity Khutuini (d Huṭu=(i)ne), standing on the mythical animal with the Scorpion tail, all the god-constellations are arranged in the sequence of their heliacal rising, just like in the sequence of deity-constellations in the II and IV calendar lists of the Mesopotamian Mul.Apin.
- 2) In the "Door of Mher" inscription and in the pictogram of "the Shield of Anzaf Fortress", the four main god-constellations that marked the solstices and equinoxes in the 4th-3rd millennia B.C. are considered to be the cardinal gods and correspond to the older system (Winter and Summer solstices "Aquarius-Haldi" and "Leo-Teisheba"; Vernal and Autumnal equinoxes "Taurus-Shivin" and "Scorpio-Khutuini"). Furthermore, the use of an older system in the "Door of Mher" inscription is evidence since the mention of four gates "The gate of Haldi", "The gate of Teisheba", "The gate of Shivini" and "The gate of Ua" refers to the eastern, northern, southern, and western sides, where instead of Khutuini-Scorpio, the god Ua" (Griffin today's Cygnus) was chosen for the god of the western gate.

Table 1. **Heliacal Rising, God-constellations.** Month VIII: October-November, Month IX: November-December, Month X: December-January, Month XI: January-February, Month XII: February-March (According to Hunger & Pingree (1999) 65)

Months	Day	Urartian name	Name in the Mul.Apin	Name of constellation	Modern star
VIII	5	Hutuine (Baktuine)	Gir.TAB	Scorpio	Scorpius
	15	1,5	Lisi	Breast of Scorpion	α Scorpius
	15	Ţurane	UZA	Goat	Lyra
IX	15	Ua	UD.KA.DUH.A	Griffin	Cygnus, Lacerta, and parts of Cassiopeia and Cepheus
	15	-	Amushen	Eagle	Aquila
	15	Nalaine	-	Horse	α, β, γ, δ Cassiopeia
	15	Šebitu	PAB.BIL.SAG	Ancestor	Sagittarius and part of Ophiuchus
X	15	Arşimela	Si-nu-nu-tu4	Swallow	ε, ζ, θ Pegasi, α Equulei, and the western fish of Pisces
XI	5	Haldi	GU.LA	Great One	Aquarius
	5	Wanapša	IKU	Field	α, β, y Pegasi and α Andromedae
	5	Deduaine	LU,LIM	Stag	Eastern part of Andromeda
	25	Baba	Anunitu	Goddess	Eastern fish and part of line of Pisces
XII	15	Melarde	KU.A	Southern Fish	Piscis Austrinus
evening rising	15	Ḥaldi BE.LI ^{MEŠ}	Weapons: ARROW & BOW		nis Minor, and parts x is; δ , ϵ , σ , ω Canis α
	15	Atbine	SHU.GI	Old Man	Perseus

- 3) The comparison of this section in the II list of Mul.Apin presented in the aforementioned table with the "Door of Mher" inscription and the pictogram of "Shield of Anzaf Fortress" shows that the structural sequence of the deity-constellations with heliacal rising is the SAME. And in the row "Scorpio-Khutuini", "Goat-Turani", "Panther-Vulture-Ua", "Sagittarius-Shebetu", "Swallow-Arsimela", "Field-Vanapsha", "Stag-Diadiuani", "Old Man-Meghardi" god-constellations fully correspond to the heliacal rising deity-constellations in the II star list of Mul.Apin.
- 4) On the II and IV charts of Mul.Apin, the "Horse" constellation (d Na-la-[i-ni]-e) is presented in the Urartian pantheon instead of the Mesopotamian Eagle (A^{mushen}). The "Horse" constellation mul ANSE.KUR.RA, is missing in the II and IV lists of Mul.Apin, but it exists as a constellation in the chart of Mul.Apin "Astrolabe: three paths of Ea, Anu and Enlil". The "Horse" constellation (α , β , γ , δ Cassiopeiae) (Hunger & Pingree (1999) 273) also rises in the IX month, together with the "Eagle" constellation in the same period. In the Mesopotamian "Astrolabe: three paths of Ea, Anu and Enlil" chart, there is a specific instruction about the placement of the "Horse" constellation (mul ANSE.KUR.RA) The "Horse" is standing on the left side of the "Panther-Vulture" (Ii 30) (Watson & Horowwitz (2011) 64). On the "Shield of Anzaf Fortress", the d Nalainie deity is standing on the horse and following the Panther-Vulture. In the "Door of Mher" inscription, the name of the d Nalainie deity is written after god d Ua. Therefore, the replacement of d Nalainie miscription, the name period. It is likely that in the Urartian pantheon, the "Horse" constellation was considered much more important².
- 5) The Nergal (d U.GUR) deity, the stellar nickname of which is d UD.KA.DUH.A, was one of the major deities of the Hayasa State (15^{th} - 13^{th} centuries B.C.) in the Armenian Highland (Gessell (1998) 839). In the Armenian translation of the Holy Bible, the god of the underworld NERGAL is translated as ANGEGH (Davtyan (2004) 72) (in Armenian vulture). In the pictogram "the Shield of Anzaf Fortress", the god who stands on the griffin, which is in the 6^{th} row, fully corresponds to the deity d Ú-a, which is recalled as the 6th in the row in the "Door of Mher" inscription.
- 6) The Mesopotamian mul Si-nu-nu-tu₄ constellation is the constellation named Shi-nu-nu-tum (Swallow) rising before sunrise in the X month (Tebetu) of Mul.Apin, and parallel to this is the deity named d A[r-şi-me-la]-a in the "Door of Mher" inscription. On the "Shield of Anzaf Fortress", this god is standing on a swallow. It is the 9th in the row.
- 7) The stars of secondary significance "Tail of Scorpion" (forming a part of "Scorpio") are missing in the row of the deities "Door of Mher" and "the Shield of Anzaf Fortress".
- 8) In the "Door of Mher" inscription, unlike the II and IV lists of Mul.Apin, the goddesses are presented in a separate section, and the rotation of the deity-constellations with heliacal rising is presented with the male gods, but in the Table 1 we added Urartian goddesses BABA (**Anunitu** in Mul.Apin) for showing their similarities of heliacal rising with the II and IV lists in Mul.Apin).

In the inscription of the "Door of Mher", in the Urartian pantheon, although the goddesses are presented separately, they are presented in direct parallels as the wives of the gods: the goddess Warubaine, is the wife of \mathbf{H} aldi, the goddess Baba is the wife of god Teišeba, the goddes Tušpuea is the wife of the god Šiuine, etc. In the II and IV lists of Mul.Apin, the parallel of the goddess Anunitu, who's heliacal risising on 25^{th} of the month of Šabātu in Mul.Apin, is the goddess named Baba in the "Mher Door" inscription, whose astrological sign is "Eastern fish and part of the line of Pisces" (Hunger & Pingree (1999) 271), which we have placed in the corresponding place in the list provided in the Table 1.

9) In the inscription of "Door of Mher", the deity of the Moon is mentioned in the 12^{th} place in the row of gods. In the first text of the inscription, this god is mentioned under the Sumerian numeral value: XXX (the number thirty is the name of the Moon god), and in the second text of the inscription, under the syllabic name Mearde (Me-e-la-ar-di-e-), which also corresponds to the name of the seventh month of the ancient Armenian calendar MEHEKAN (corresponding to February in the fixed calendar), and the Armenian word MEGHARD, 'Moon' (Meard) (Acharyan (1926) 296-299). The seventh month name "Mehekan" also corresponds to the Indo-European name fish: māhï

²In the Armenian pagan epic "Sasna Tsrer" (Daredevils of Sassoon) the mythical horse Kurkik, who is referred to as a sea horse, occupies a very important place.

Table 2. "The menology identifies ten of the twelve months with stars. A comparison of the stars of the menology with those of the Path of Ea in KAV 218 B (the star catalogue) and KAV 218 C (the List-Astrolabe) demonstrates a close affinity between the three lists" (Horowitz (1998) 160)

Month	KAV 218 A	KAV 218 B	KAV 218 C
	Menology	Star Catalogue	List Astrolabe
Nisan	iku = ikû	iku	iku
Iyar	mul.mul = zappu	mul.mul	mul.mul ^a
Sivan	gù.an.na = is lê ^b	<i>is lê</i>	sipa.zi.an.na
Tammuz	sipa.zi.an.na=šitadallu	sipazi.an.na	kak.si.sá
Ab	kak.si.sá = <i>šukūdu</i>	kak.si.sá	pan
Elul	pan	pan	<i>kalītum</i>
Tishreh	MU.BU.kéš.da = <i>nīru</i>	[]	nin.mah
Arahsamnu Kislev Tebet	— "Brillance of Venus" c	nin.mah ur.idim <i>şalbatānu</i>	ur.idim <i>șalbatānu</i> gu.la
Shevat	te ₈ ^{mušen} ku ₆	en.te.na.bar.hum	nu.muš.da
Adar		ku ₆	ku ₆

 $[^]a$ It is not completely certain that the Sumerian star-name is always to be read mul.mu stars', rather than mul mul, since mul = zappu is found in Aa IV/6 (MSL 14 291:26). Note als writing at Ebla mul.mul = $k\grave{a}$ -ma-t \grave{u} (= Hebrew כימה, Pleiades); see W. G. Lambert in C. Cagn Il Bilinguismo à Ebla (1984) 396-97.

(Malkhasiants (1944) 494). A parallel to the inscription of "Door of Mher" this deity in iconography of the Anzaf Shield is also the 12th in the row of gods and standing on the back of an animal with a elderly bearded human head in a crescent-shaped hat. In ancient Mesopotamian iconography the Moon-god Sin was represented as an old man with a flowing beard, a wise and unfathomable god, wearing a headdress of four horns surmounted by a crescent Moon. It turns out that the first heliacal rising constellation in the XII month could have been named after the Moon god in the inscription of "Door of Mher". The **KAV-218 B** column in Table 2 shows that in the ancient world, in this case in Mesopotamia, it was customary to name the months by the name of the heliacally first rising constellation in a given month. And, the XII month is identified with the *Piscis Austrinus* (ku₆) constellation by the name "Mełard" (Piscis Austrinus, ku₆), wich heliacally rising has defined the month of February and the god of the Moon can be paralleled and identified³. It should also be noted that the civil lunisolar calendar had years consisting of 12 lunar months, each beginning when a new crescent moon was first sighted low on the western horizon at sunset.

10) In the inscription of "Door of Mher", after the rising of the deity named MEGHARD, the "Weapons of Haldi" (BE.LI^{MEŠ}) are mentioned. The "Haldi's Weapons" (BE.LI^{MEŠ}) in the inscription is plural⁴. In the sky, WEAPONS, as stars, refer to the constellations ARROW (Canis Major, Canis Minor, and parts of Puppis and Pyxis) and BOW (δ , ε , σ , ω Canis Minoris and κ Puppis) (Hunger & Pingree (1999) 271). The "weapons" of the supreme god Haldi, according to Urartian iconography of the "Shield of Anzaf" are the "spear" and also the "bow" (Figure 3), which are identified with the weapons of Mesopotamian gods Marduk and Ninurta. In the II and IV lists of Mul.Apin, these

bgù.an.na = gu4.an.na 'The Bull of Heaven'.

oní,g[aldinanna.ke] = namrirrī šá dišt[ar].

³I did not notice this important data-component in the previous works (Armin, 2020, 2023).

⁴In previous works I have expressed the opinion that BE.LI^{MEŠ} may be the constellation Auriga, but upon closer examination I am now convinced that it does not refer to the Auriga constellation.

"Heavenly Weapons" are mentioned twice: they are mentioned as heliacal rising in the morning, in the IV and V months (Arrow: on the 15^{th} day of Du'üzu and Bow: on the 5^{th} day of Abu), and again ARROW as rising, in the evening, in the X month (on the 15^{th} day of Tebētu). The inscription of "Door of Mher" is also built according to the same logic, but the difference is that in the Urartian star pantheon, the evening risisng of the "WEAPONS" include not only the rising of ARROW, but also the BOW, and they become visible together (ARROW: Canis Major, Canis Minor, and parts of Puppis and Pyxis; BOW: δ , ε , σ , ω Canis Minoris and κ Puppis) in the evening sky in the XII month, after the heliacal rising of the constellation "Piscis Austrinus" (ku₆). This observation once again shows that the same principles were used in the construction of calendar schemes both in Urartu and in Mesopotamia.

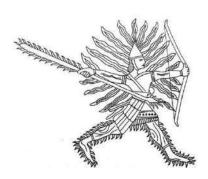


Figure 3. Haldi's weapons: Arrow and Bow.

11) In the 2^{nd} list of Mul.Apin, the god-constellation "Old Man", which is the constellation of Perseus, in the inscription of "Door of Mher" corresponds to the god named **Atbini**. According to the Sumerian scholar A. Davtyan, "In the Urartian name of the god d **At-bi-ni** can be assumed to contain the ideogram **AT** / **AD** - "father". This means that we are dealing not with a syllable, but with a Urartian word. And the phonetic component bi is placed after the ideogram, because in that case, the **AD** cuneiform should be read with the phonetic value ab_3 , d **Ab**₃-bini. This Sumerian and (presumably) Urartian word ab_3 , in our opinion, can be identified with two Armenian words:

- 1. haw-(u) "grandfather, father of the father",
- 2. haw-(i) "end, beginning, origin", hawak "primary cause. And so, **ab₃-bi** can be transcribed as **haw-(i)**, which means

"grandfather, ancestor", as in Mul. Apin mentions he is the Enlil's ancestor".

The few insignificant differences between the chart of heliacal rising deities in the Urartian "Door of Mher" inscription and the 2^{nd} and 4^{th} lists of Mul.Apin are explained by the fact that even though in ancient times the astronomical methods and approaches were common and mainly the same, the pantheon of every country had its very own supreme god, and in the row, it was the god-constellations with heliacal rising on the same days that were selected, which were considered much more important for the Kingdom of Van. The constellations and their sequence structure in the astronomical charts of Mul.Apin and in the "Door of Mher" inscription, are generally consistent and similar, but the names of the gods of these constellations in the "Door of Mher" inscription are different. The names of the Urartian gods are basically Armenian names derived from the functions of these gods, but this is a different topic that will be discussed in a separate article.

Summary

In the "Door of Mher" inscription and in the pictogram of "the Shield of Anzaf Fortress", the gods are the constellations. All the god-constellations are arranged in the sequence of their heliacal rising, just like in the sequence of deity-constellations in the II and IV calendar lists of the Mesopotamian Mul.Apin. The differences of the structure and sequence of deity-constellations in the "Door of Mher" inscription and in the II and IV calendar lists of the Mesopotamian Mul.Apin is that the deity-constellations defining the four seasons of the year (Winter and Summer solstices, Vernal and Autumnal equinoxes) in the 4^{th} - 3^{rd} millennia B.C. are removed from the series of heliacal rising of constellations in the "Door of Mher" inscription and are placed in the beginning of the series, and, starting from the 4^{th} deity – Khutuini standing on the mythical animal with the tail of a Scorpion, all the deity-constellations are arranged based on the sequence of heliacal rising, just like the structure of the II and IV calendrical charts of the Mesopotamian Mul.Apin are arranged. This revelation – the structure - is substantiated by the pictures of "the Shield of Anzaf Fortress" and the parallel, comparative examination of the "Door of Mher" inscription with the II and IV calendar lists of the Mesopotamian Mul.Apin.

⁵Oral transmission

Appendix

The corpus of the "Mher's Door" inscription (Salvini, 2008)

{I}

- 1. [d]Ĥal-di-e e-ú-ri-i-e mIš-pu-ú-i-ni-še mdSar5-du-ri-e-ĥi-ni-še mMi-nu-ú-a-še
- 2. ^mI[š]-pu-ú-i-ni-ĥi-ni-še i-ni-li KÁ za-a-du-ú-a-li te-ru-ni ar-di-še ^dUTU ITU a-şu-še ma-nu-še
- 3. dHal-di-e-i dIM dUTU DINGIRMES UKKINMES VI UDU.MÁŠ.TUR dHal-di-e ni-ip-si-di-wa-a-li
- 4. XVII GUD $^{\rm ME\-S}$ XXXIV UDU $^{\rm ME\-S}$ $^{\rm d}$ Ĥal-di-e ur-bu-ú-e $^{\rm d}$ IM VI GUD XII UDU $^{\rm ME\-S}$ $^{\rm d}$ UTU IV GUD VIII UDU $^{\rm ME\-S}$
- 5. dHu-tu-i-ni-e (huuf dBaq-tu-i-ni-e) II GUD IV UDUMEŠ dTu-ra-ni-i-e GUD II UDUMEŠ
- 6. dú-a II GUD IV UDU^{MEŠ d}Na-la-i-ni-e II GUD IV UDU dŠe-bi-tú-ú-e II GUD IV UDU dAr-si-me-la II GUD IV UDU
- 7. dWa-na-ap-šá-a GUD II UDU dDi-du-a-i-ni GUD II UDU dXXX GUD II UDU dĤal-di-na-ú-e BE.LI^{MEŠ} GUD II UDU^{MEŠ}
- 8. $^{\rm d}$ At-bi-ni-i-e GUD II UDU $^{\rm d}$ Qu-ú-e-ra-a GUD II UDU $^{\rm d}$ E-li-ip-ri-e GUD II UDU $^{\rm d}$ Tar-ra-i-ni-e GUD II UDU $^{\rm MES}$
- 9. dA-da-ru-ta-a GUD II UDU dIr-mu-ši-ni-e GUD II UDU DINGIR a-lu-še ú-ru-li-li ú-e-ši-ú-a-li GUD II UDU MEŠ
- 10. dAl-ap-tú-ši-ni-e GUD II UDU dE-ri-na-a GUD II UDU dŠi-ni-ri-i-e GUD II UDU dÚ-ni-na-a GUD II UDUMEŠ
- 11. dA-i-ra-i-ni-e GUD II UDU dZu-zu-ma-ru-e GUD II UDU dĤa-a-ra-a GUD II UDU dA-ra-șa-a GUD II UDU dZi-ú-qu-ni-e GUD II UDU
- 12. dÚ-ra-a GUD II UDU dAr-și-be-di-ni-e GUD II UDU dAr-ni-i-e GUD II UDU dĤal-di-ni i-ni-ri-a-si-e GUD II UDUMES dĤal-di-ni al-su-i-si-e GUD II UDUMES
- 13. ${}^d\hat{H}al$ -di-ni di-ru-ši-i-e GUD II UDU ${}^{ME\-S}$ ${}^d\hat{H}al$ -di-na-ú-e ${}^{L\dot{U}}A.SI^{ME\-S}$ II GUD IV UDU dIM ${}^{L\dot{U}}A.SI^{ME\-S}$ II GUD ${}^{ME\-S}$ IV UDU ${}^{ME\-S}$
- 14. DINGIR ar-ţu-wa-ra-sa-ú-e II GUD^{MEŠ} XXXIV UDU^{MEŠ} URU Ar-di-ni-na-ú-e DINGIR GUD II UDU^{MEŠ} URU Qu-me-nu-na-ú-e DINGIR GUD II UDU^{MEŠ} URU Ţu-uš-pa-ni-na-ú-e DINGIR GUD II UDU^{MEŠ}
- 15. DINGIR^{MEŠ} dĤal-di-ni-ni URU-ni GUD II UDU^{MEŠ} DINGIR^{MEŠ} URU Ar-şu-ni-ú-i-ni-ni GUD II UDU^{MEŠ} dĤal-di-ni da-ši-i-e GUD II UDU^{MEŠ} dŠú-ba-a GUD II UDU
- 16. dĤal-di-na-ú-e KÁ GUD II UDU dIM KÁ URUE-ri-di-a-ni GUD II UDU MEŠ dUTU KÁ URUÚ-i-ši-ni-ni GUD II UDU MEŠ dE-li-a-wa-a GUD II UDU
- 17. dĤal-di-ni ar-ni-i-e GUD II UDU^{MEŠ} dĤal-di-ni uš-ma-ši-i-e GUD II UDU DINGIR^{MEŠ} d<Ĥal>-di-ni-ni su-si-ni GUD II UDU
- 18. ^dTa-la-ap-ú-ra-a GUD II UDU ^dQi-li-ba-ni GUD II UDU ^{KUR}e-ba-ni-n[a-ú-e] DINGIR GUD II UDU ^{KUR}al-ga-ni-na-ú-e DINGIR GUD II UDU
- 19. [d?]şu-i-ni-na-ú-e DINGIR GUD II UDU^{MEŠ} [DINGIR]^{MEŠ} aţ-qa-na-na-ú-e II GUD^{MEŠ} XIV UDU DINGIR^{M[E]Š} di(?)-ra-ú-e II GUD XIV UDU DINGIR^{MEŠ} UKKIN^{MEŠ} IV GUD XVIII UDU^{MEŠ}
- 20. dĤal-di-ni ni-ri-bi-e IV UDU^{MEŠ d}Ú-a-i-na-ú-e KÁ ^{URU}Ni-ši-x-x-x-ni II UDU^{MEŠ ŠADU}ba-ba-na-ú-e X UDU
- 21. $^{\rm d}$ Wa-a-ru-ba-i-ni-e $^{\rm GUD}$ ÁB UDU $^{\rm d}$ Ba-ba-a $^{\rm GUD}$ ÁB UDU $^{\rm d}$ Ţu-uš-pu-e-a $^{\rm GUD}$ ÁB UDU $^{\rm d}$ A-ú-i-e $^{\rm GUD}$ ÁB $^{\rm d}$ A-ĭa $^{\rm GUD}$ ÁB

- 22. ^dSar-di-i-e ^{GUD}ÁB ^dŞi-nu-ĭa-ar-di-e II UDU ^dIp-ĥa-ri II UDU ^dBar-şi-i-a UDU ^dSi-li-i-a UDU ^dAr-wa-a UDU
- 23. dA-di-i-a UDU dÚ-i-a UDU DINGIR a-a-i-na-ú-e IV UDU dAr-di-i-e II UDU di-nu-a-na-ú-e XVII UDU
- 24. d Ĥal-di-ni be-di-ni DINGIR $^{ME\check{S}}$ UKKIN be-di-ni ma-ni-ni ul-gu-še m Iš-pu-ú-i-ni m dSar $_5$ -du-ri-ĥi-ni m Mì-nu-a m Iš-pu-ú-i-ni-e-ĥi-ni
- 25. ^mIš-pu-ú-i-ni-še ^{md}Sar₅-du-ri-ĥi-ni-še a-li ^mMì-nu-a-še ^mIš-pu-ú-i-ni-ĥi-ni-še [e?-we?] ^dĤal-di-ni be-di šá-ni qa-ab-qa-ri-li-ni e-we DINGIR^{MEŠ} UKKIN^{MEŠ}
- 26. III GUD XXX UDU ú-i ti-šú-la-ku-ni a-lu-ki4 ar-di-ni ĥu-ru-la-I [ši-li] gu-li ti-šú-ul-du-li-ni
- 27. ^mIš-pu-ú-i-ni-še ^{md}Sar₅-du-ri-ĥi-ni-še ^mMì-nu-ú-a-še ^mIš-pu-ú-i-ni-[ĥi-ni-še] ^{GIŠ}ul-di-e šú-ĥé te-ru-ni ^dĤal-di-e ku-ú-e
- 28. GIŠşa-a-ri šú-ĥé te-ru-ni ú-i gi-e-i iš-ti-n[i ši-i-d]a-ú-ri mIš-pu-ú-i-ni-še mdSar₅-du-ri-ĥi-ni-še
- 29. ^mMì-nu-ú-a-še ^mIš-pu-ú-i-ni-ĥi-ni-še bur-ga-na-ni šú-ĥé te-ru-ni te-ru-ni ar-di-še a-še GlŠ^{MEŠ} ú-i al-di-ni-i e-gu-du-ú-li
- 30. dĤal-di-e III UDU^{MEŠ} TAG III UDU^{MEŠ} DINGIR^{MEŠ} UKKIN a-še ^{GIŠ}ul-di ta-nu-li dĤal-di-e III UDU TAG III UDU DINGIR^{MEŠ} UKKIN^{MEŠ} a-še ^{GIŠ}ul-di me-šú-li
- 31. dĤal-di-e III UDU TAG III UDU DINGIR^{MEŠ} UKKIN^{MEŠ} GEŠTIN me-ši-i-ú-li-ni mì-i e-ši-me-și el-mu-š[e ma]-a-nu-ú-ni

$\{II\}$

- 1. dĤal-di-e e-ú-ri-i-e mIš-pu-ú-i-ni-še mdSar5-du-ri-e-ĥi-ni-še
- 2. mMi-nu-ú-a-še mIš-pu-ú-i-ni-e-ĥi-ni-še i-ni-li KÁMEŠ za-a-tú-ú-li
- 3. te-er-tú ar-di-še dUTU-ni-ni ITU a-şu-ú-še ma-a-nu-še dĤal-di-e
- 4. dIM dUTU DINGIRMEŠ UKKINMEŠ VI UDU.MÁŠ.TUR dĤal-di-e ni-ip-si-di-wa-[a-l]i
- 5. XVII GUD XXXIV UDU dĤal-di-e ur-bu-ú-e VI GUD XII UDU dIM IV GUD VIII UDU dUTU
- 6. II GUD IV UDU dHu-tu-i-ni-e (hut dBaq-tu-i-ni-e) GUD II UDU dTu-[ra-ni]-e
- 7. II GUD IV UDU dú-a II [GUD] IV UDU dNa-la-[i-ni]-e
- 8. II GUD IV [UDU] dŠe-bi-tú-ú-e II GUD IV UDU dA[r-si-me-la]-a
- 9. GUD II UDU dWa-a-na-ap-šá-a GUD II UDU dDi-e-du-[a-i-ni]-e
- 10. GUD II UDU dŠi-e-la-ar-di-e (hmd dMe-e-la-ar-di-e) GUD II UDU dĤal-di-[na-ú-e] B[E].LIMES
- 11. GUD II UDU dAt-bi-ni-i-e GUD II UDU [dQ]u-ú-e-ra-a
- 12. GUD II UDU dE-li-ip-ri-i-e GUD II UDU [dTar]-ra-i-ni-e
- 13. GUD II UDU dA-da-ru-ta-a GUD II UDU [dIr-mu]-ši-ni-e
- 14. GUD II UDU DINGIR a-lu-še ú-ru-li-[li ú-e]-ši-a-li
- 15. GUD II UDU dA-la-ap-tú-ši-ni-e [GUD II] UDU dE-ri-na-a
- 16. GUD II UDU dŠi-i-ni-ri-e GUD II [UDU d]Ú-ni-na-a
- 17. GUD II UDU dA-i-ra-i-ni-e GUD II [UDU dZu]-zu-ma-a-ru-e
- 18. GUD II UDU dĤa-a-ra-a GUD II UDU dA-ra-şa-a
- 19. GUD II UDU dZ[i-q]u-ú-ni-i-e GUD II UDU dÚ-ra-a
- 20. GUD II UDU dAr-şi-be-di-ni-e GUD II UDU dAr-ni-i-e
- 21. GUD II UDU dĤal-di-n[i] i-ni-ri-a-ši-e GUD II [UDU] dĤal-di-ni al-su-ú-ši-e
- 22. GUD II UDU dĤal-di-n[i] di-ru-ši-i-e II GUD [IV UDU dĤal-d]i-na-ú-e LÚA.SIMEŠ
- 23. II GUD [IV UDU] dIM-na-ú-e LÚA. SIMEŠ II GUD XXXIV UDU DINGIR ar-ţu-wa-ar-sa-ú-e

- 24. [GUD II UDU] URU Ar-di-n[i-na]-ú-e DINGIR GUD II UDU URU Qu-me-nu-na-ú-e DINGIR
- 25. GUD [II UDU URU] Ţu-uš-pa-na-ú-e DINGIR GUD II UDU DINGIRMEŠ dĤal-di-ni URU
- 26. GUD [II UDU DIN]GIRMEŠ URUAr-şu-ú-ni-[ú?-ni] GUD II UDU dĤal-di-ni da-ši-i-e
- 27. [GUD II UDU] dŠú-ú-ba-a GUD [II] UDU dĤal-di-na-ú-e KÁ
- 28. [GUD II UDU dIM] KÁ URUEr-di-ĭa GUD II UDU dUTU KÁ URUÚ-i-ši-ni
- 29. [GUD II UDU d|E-li-a-wa-a GUD II UDU dĤal-di-[ni] ar-[ni]-i-e
- 30. [GUD II UDU dĤal-di]-ni uš-ma-š[i]-i-e GUD II UDU DINGIR^{MEŠ d}Ĥal-di-ni-ni su-ú-si-ni
- 31. [GUD II UDU dTa-la]-ap-ú-[ra]-a GUD II UDU dQi-li-ba-[ni]-e
- 32. [GUD II UDU KURe-b]a-ni-[na-ú]-e DINGIR GUD II UDU KURal-[ga]-ni-[na-ú]-e DINGIR
- 33. GUD [II UDU do şu-i-ni-na-ú-e DINGIR] II GUD XIV UDU DINGIRMEŠ aţ-qa-na-[na]-ú-e
- 34. [II GUD XIV UDU dx-x-x]-ra-ú-e IV GUD XVIII UDU [DINGIRMEŠ UKKIN]MEŠ
- 35. [IV UDU dHal-di-ni ni]-ri-bi-i G[UD] II UDU dÚ-[a-i-na-ú-e]
- 36. [KÁ ^{URU}Ni-ši-x-x-x]-ni X UDU ^{ŠADU}ba-ba-[na-ú-e]
- 37. [GUDÁB UDU dWa-a-ru]-ba-a-ni-e GUDÁB UDU [dBa-ba-a]
- 38. [GUDÁB UDU dTu-uš-pu-e-a GUDÁB dA-ú]-i-e
- 39. [GUDÁB dA-ĭa] GUDÁB dSa[r-di-i-e]
- 40. [II UDU dSi-nu]-ú-ĭa-ar-di-i-e [II UDU dIp-ĥa-ri-e]
- 41. [UDU dBar-s]i-i-a UDU dS[i-li-i-a]
- 42. [UDU dAr-wa-a] UDU dA-di-[i-a UDU dÚ-i-a]
- 43. [IV UDU DINGIR a-a-i-na]-ú-e [II UDU] dA[r-di-i-e]
- 44. [XVII UDU di-nu-a-na]-ú-e [dĤal-di-ni be-di-ni]
- 45. [DINGIR^{MEŠ} UKKIN]^{MEŠ} be-di-ni [ma-ni-ni ul-gu-še]
- 46. [mIš-pu-ú]-i-ni mdSar5-[du-ri-ĥi-ni]
- 47. [mMì-nu-ú]-a mIš-pu-[ú-i-ni-e-ĥi-ni]
- 48. [mIš-pu-ú-i]-ni-še mdSar₅-[du-ri-ĥi-ni-še]
- 49. [a-li ^mMì-nu]-ú-a-še ^mIš-pu-[ú-i-ni-ĥi-ni-še]
- 50. [e?-we? dHal]-di-ni be-di [šá-ni]
- 51. [qa-ab-qa-ri-li]-ni e-we DINGIR[MEŠ UKKINMEŠ]
- 52. III GUD XXX UDU ú]-i-e ti-ip-na[-x-x-x a-lu-ki₄]
- 53. [ar-di-ni] ĥu-ru-la-a-i ši-li gu-ú-li [ti-šú-ul-du-li]-ni
- 54. [mIš-pu-ú-i-ni-še md | Sar₅-du-ri-[ĥi-ni-še mMì-nu-ú-a-še]
- 55. [mIš-pu-ú-i-ni]-ĥi-ni-še GIŠul-[di-e šú-ĥé te-er]-tú
- 56. [dĤal-di-e ku-ú-e GIŠ]şa-ri-e [šú-ĥé te]-er-tú
- 57. [ú-i gi-e-i iš-ti-ni ši-i-da]-ú-ri ^mIš-[pu-ú-i-ni-še ^{md}Sar₅-du-ri-ĥi]-ni-še
- 58. [mMì-nu-ú-a]-še mIš-pu-ú-[i]-ni-e-ĥi-ni-še
- 59. [bur-ga-na-ni šú-ĥé te-er-tú te-er-tú ar-di]-še a-še GIŠ^{MEŠ} ú-i al-[di]-ni-i
- 60. [gu-du-ú-li dĤal-di-e III UDUMEŠ ur-pu]-ú-a-li III UDU DINGIRMEŠ UKKINMEŠ
- 61. [a-še GIŠul-di ta-nu-li III UDU dĤal-di]-e ur-pu-[ú]-a-li
- 62. [a-še GIŠul-di me-šú]-li III UDUMEŠ d[Ĥal-di-e] ur-[pu-a]-li
- 63. [GEŠTIN me-ši-i-ú-li-ni mì]-i e-ši-m[e-şi el]-mu-š[e] m[a-a-nu-ú]-ni
 - 1 In line 7 of part 1 of the corpus, the name ^dDi-du-a-i-ni should be corrected as in line 9 of part 2: ^dDi-e-du-[a-i-ni]-e.
 - 2 Not a bull, but a cow is sacrificed to the goddesses: GUDÁB.

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