
A NEW VISION OF NUMERICAL SYMBOLISM IN CALENDAR AND LIFE CYCLES

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Abstract

In calendars and myths related to the calendar, such concepts as an extra day, time outside of time are used. The Greeks called this ‘epagómenos’ (extra day), the Persians ‘fanji’ (stolen), the Kazakhs ‘bes konak’ (5 guests), ‘bes eshki’ (5 goats), ‘bes baital’ (5 fillies). Extra days are not included in any month either in myths or traditional customs. These days are considered a bridge connecting the old year with the new one. Authors predict that these extra days were the 13th month. In addition, the concept of ‘mushel’ is given. The Kazakh people call a 12-year cycle in a human’s life ‘mushel’. The beginning of this cycle is considered to be from the age of 13, and at the age of 13, the 13th organ (‘ulı mushhe’ in Kazakh) is formed. The Kazakh people refer to the 13th organ as the reproductive, genital organ of a person. The article analyses mythical, ethnographic, linguistic and folklore data applying a point inside a circle sign and its 12 + 1 sample used in modern Kazakhstan mythological science.

Keywords: numbers, symbol, life cycle, mushel, ulı mushhe

1. Introduction

We can depict the environment, this world only through symbols. And we cannot see and know how the world was created, its image, shape, size, what material the Creator made it of [1]. We can only symbolize this. The simplest symbol of the explanation of natural world is the point. The point is the navel, the ray, the absolute, the first principle [2]. From navel, that is, the ray, from its shedding and spreading the light, the birth of the world, of life, begins. The symbol of world is the circle. It can be represented by the simple symbol below (Figure 1).

These two symbols form an oppositional pair (centre and periphery). If you read the symbol point from above or from below, the essence of the umbilical-peripheral opposition changes as high-low opposition. As well as the number of lines spread from the point can be 2, 4, 6, 8, 12, etc. Using these

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symbols, it's possible to solve the problems in folklore texts, religion, customs, language, etc. In short, the mythological significance of the point and the circle can be described as follows: in cosmogonic myths, the point is the ray, invisibility, deity; the circle - spreading of light, visibility, result; in the horizontal universe model, the point is the political, spiritual, military leader of the country, the circle is the public; in the starry sky, the point-star which considered to be the centre of the Universe (for example, the North Star), the circle - the topography of the whole sky, stars, etc., in a calendar cycle, the point - those 5-6 days, not included in the year, the circle - 360 days; in digital symbolism, the point is number 1, can be several circles (three, four, five, etc.) [1, p. 24].

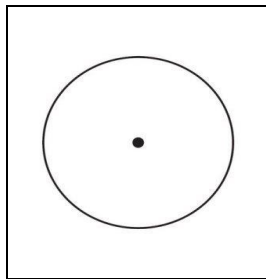


Figure 1. Navel-Point - the ray (the principle), circle - world.

Among these meanings, we try to explain the essence of stable plots found in myths, folklore, religion [3], using the 12 + 1 sample (for example, 360 days and five days outside of time).

2. Methods

In recent years, a lot of research has been done on the symbolism of numbers. Some scholars examined the semantics, symbolism of holy numbers found in folklore and religious texts [4-10], some scholars conducted linguistic, ethnolinguistic scrutiny of fixed phrases comparing several languages [11-16]. In all these works, only the similarities and differences in fixed expressions with numbers of two or more languages are presented as a result of using comparative, traditional methods of description. However, despite the fact that their mythological characteristic, symbolic meaning, calendar characteristic, sacral significance are revealed, there are no full descriptions.

Numbers conceal the mysteries of nature. Each number has its own place. The mythologems which we consider are largely related to the calendar: 12 Tribes of Israel, 12 labours of Hercules, 12 Apostles of Jesus, 12 parts of the body. And the sacred, symbolic meaning of the number 12, in our opinion, can be revealed only by the 12 + 1 sample and by means of this the whole mythological picture can be understood. Some researchers associate the number 13, formed through the 12 + 1 sample only with evil and misfortune [7, 10]. However, the number 13 has both negative and positive values. In our opinion,

Jesus symbolizes precisely this number 13. The symbol can be shown as in Figure 2.

The point of the symbol is Jesus, and the 12 lines spread from the point symbolize the 12 Apostles (the apostles of Jesus Christ are described in sections 10.1-4 of the Gospel of Matthew). Now, using this symbol, we will show a new model for analysing picture, words and interpret mythical meanings. In ancient calendars, 5 days of 365 were considered an additional 13th month. It represents the point in the sign and 12 lines in the sign symbolize 12 months. 12 lines in the sign symbolize 12 months, and the point – extra days (5 days). That is, to make the full annual cycle, extra days that are not included in the calendar are added as a thirteenth month.

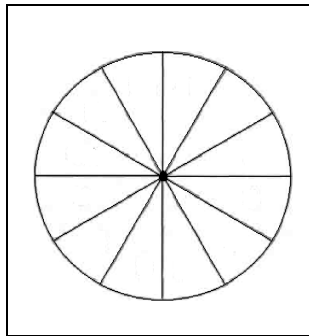


Figure 2. 12 + 1 sample, 12 Apostles and Jesus.

3. Results and discussion

3.1. Calendar

In the ancient Egyptian calendar, the year originally consisted of 360 days. Priests observed the appearance of Sirius for a long time then added additional 5 days to the calendar. One of the legends speaks of the appearance of additional days: the Earth god Geb and the sky goddess Nut made a secret marriage. Having learnt their secret marriage, the Sun god Ra unleashes his curses on Nut by swearing that they would not have a baby in any of the months. Desperately, the sky god Nut goes to Thoth to tell her grief. Thoth then goes to the Moon god, and gambles five days out of him. These days are added at the end of the year; Gorus, Set, Osiris, Isis and Nephthys were born on these days. Since then, the year has lengthened to 365 days. The Greeks called the additional 5 days as ‘epagómenos’ (extra day). These days were celebrated as the birthday of the gods and were not included in any of the months [17].

Similarly, there is the calendar of the great thinker of the East, astronomer and philosopher O. Khayyam. It also includes 365 days. However, the difference is that each of the spring and summer 6 months consists of 31 days, and the autumn and winter months - 30 days. This is directly related to the movement of the Sun. Because in the spring and summer months the Sun moves slowly and in winter it is faster. The New Year of the Persians is celebrated on March 22.

Additional days that connect the new and the old years are called ‘fanji’ (stolen). On the calendar of O. Khayyam every month consisted of 30 days.

The ancient Turks named the months in order: first month, second month, third month, etc. According to M. Kashgari [18], the medieval Turks had no names for 12 months and only the cities used the Arabic names of the months. Nomadic Turks divided the year into four seasons and called three months by one name. Therefore, the ancient Turks divided the year into four quarters (by season). According to M. Kashgari *oglak* month (spring month), *Ulug oglak* month (big spring month), *Ulug month* (big month) are associated with the birth and growth of lambs. Only the fourth month is not mentioned in the dictionary (this might have been a small month). Our ancestors, who considered to be a part of the Turks also divided the year into four periods. Each of them had its own element: spring-water, summer-fire, autumn-earth, winter-air.

In the ‘Kutadgu Bilig’ by Yusuf Balasaguni, which is another great legacy of the Turkic people, seven stars and 12 zodiac signs are mentioned: Sakentir - Saturn (in Kazakh: Konyrkay zhuldyz), Onay - Jupiter, Kurud - Mars (red star), Yashyk - the Sun, Sabit - Venus, Arzu - Mercury (Small Venus), Yalshyk - the Moon, which contain the name of seven planets. Then the text gives the names of 12 zodiac signs: Kozy (Aries), Ud (Taurus), Erentuz (Gemini), Kushyk (Cancer), Arystan (Leo), Bugday basy (wheat head corresponds to Virgo; Sumbile), Ulgi (Libra), Shadan (Scorpio), Ia (Sagittarius), Oglak (Capricorn), Konek (Aquarius), Balyq (Pisces) [19].

The ancient Turks counted a year in 12 months, and the Kazakh people who belong to the branch Turks called 5 days that were not included in 360 days as ‘bes konak’ (5 guests), ‘bes eshki’ (5 goats), ‘bes baital’ (5 fillies).

3.2. *The relationship of Hercules and Jesus to the zodiac*

In the legend of Hercules, his 12 labours attract special attention. He performed 12 famous labours during his service at the Mycenaean king Eurystheus. “Piobb related the 12 labours of Hercules to the signs of the zodiac, confirming his characterization as a solar hero: victory over Geryon (where he took his bulls) and the giant Cacus - Aries; taming the Cretan bull - Taurus; poles - with Gemini, Lernean hydra and Stymphalian birds - Cancer; Nemean lion - with Leo; Amazons (Hippolytus belt) - Virgo; Augean stables - Libra; Erymanthian boar (wild boar) - Scorpio, centaurs and mares of Diomedes - Sagittarius; Ceryneian Hind with golden horns - Capricorn; the liberation of Prometheus - Aquarius; Poseidon’s monster that attacked Hesione – Pisces.” [20] According to Ovidius, Hercules’s birthday as Apollon’s and Zeus’ was celebrated in the winter solstice [21].

The relation of Hercules to the zodiac connects him with Jesus. In this regard, the scientists who developed the encyclopaedic collection ‘Myths of the world nations’ comment on the following opinion: “In Jesus Christ, as in other mythological images similar to him, representatives of the solar-astral concept saw a solar deity: he was born on December 25 (the Sun turns in the spring after

the winter solstice), wanders the Earth accompanied by 12 apostles (the annual path of the Sun through 12 zodiac constellations), dies and rises on the third day (a three-day new moon when the Moon is not visible, and then again ‘rises’, etc.)” [22] In works written during the Soviet Union, Jesus was depicted as a mythical character. Since society at that time was built on atheism, it tried to distance people from religion. By showing Jesus as a mythical character, the goal was also to distract people and society from religion. But we do not consider Jesus a mythical hero. In the Muslim interpretation, he is a prophet, and in the Christian religion - God.

In our opinion these images have a connection with the 5 days which are not included in 12 zodiac signs. As it is known, depending on the nature of each place, the traditions of each country, holidays also differ. After the end of the old year and the beginning of the New Year, sacrifices to god and great holidays were held during 5 days (a short month). So on these holidays, that is, in the 13th month Hercules, other gods and Jesus were born. The most important thing is the addition of 5 days at the end of the year, and this is closely interconnected to the mythologem and initiation of birth and death.

3.3. 12-year life cycle of the Kazakh chronology (mushel)

The Kazakh people have a 12 year life cycle called ‘mushel’. This cycle is closely linked to the 12-year chronology of Kazakh people. According to M. Kashgari, the animals named after the year are as follows: Syshkan - mouse, Ud - cow, Bars - leopard, Tabyshkan - hare, Nek - timsakh, Iylan - snake, Iunt - horse, Koy - sheep, Bishin - monkey, Takagu - hen, Yt - dog, Tonuz - boar [21]. In addition, in the fairy tale ‘How the years were given animals names’ there are 12 animals and a camel. However, since camel was the last to see the sunrise, that is, it was the 13th and it did not get a year. This might have been an extra year, as those days that were mentioned above, not included in any of the months. For example, the report of the first mushel (12 years) of the Kazakh people begins from the 13th year. And the time before this is not taken into account. In our opinion, not included the 13th year should be an embryonic period in the uterus. That is, it means ‘time outside of time’.

3.4. About the 13th part of body (ult mushe)

By the first ‘mushel’ (13th year) a human being starts to change in psychological, physiological, biological terms. Voice change and appearance of hair on a body, menstruation and physiological changes are related to the hormones (testosterone, estradiol). In ancient times, initiation rites took place precisely in this period. For example, after the first menstrual cycle of a girl, there was an initiation rite performed in some nations. During this time, arrangements of dying and being resurrected are made for their transition from childhood to adulthood. In the tradition of indigenous peoples living in

Australia, the neophyte must be in a hut that looks like a monster. Sitting inside the hut symbolizes the life in the womb. Getting out of it is a second birth [23].

Kazakh people have similar symbolic traditions. For example, Kazakh people cover the face only in two cases: when someone dies or when bride enters her new family as a daughter-in-law. After the young wife came to her new place, she was not allowed to leave the house for three days. It is only on the fourth day that her two sisters-in-law take her arms and get her out of the house covering her face with the veil. The poet ties one end of the veil to *dombra's* (Kazakh national musical instrument) neck, and opens her face after introducing the wife to her husband's family. Here we see that covering the woman's face with a veil symbolizes her death (the Kazakhs only cover the face of dead). She is considered to be dead for her previous family. They open her face to revive her. Veil covering the face is similar to curtains (*umay*, placenta) that surround the baby. Inner side of curtains and the neophyte inside the hut have both one common meaning. The opening of the veil and leaving home symbolize the rebirth. And the first initiating actions were taken regarding puberty. In the Kazakh people, this part of the body is also politely called *the great part* (*uli mushe*). There is a concept of 12 parts, similar to the concept of 12 years. The 12 parts include two shoulder blades (*zhauyryn*), two pelvic bones (*zhambas*), two thighs (*ortan zhilik*), two fibulas (*asykty zhilik*), two radius (*kari zhilik*) and two tibia (*tokpan zhilik*). And the thirteenth can be called *the great part* (*uli mushe*), a part that is not taken into account.

3.4.1. Symbol of the 13th part of body (*uli mushe*)

Symbol of the 13th part of body is the rib (kabyrga). And the expression *kabyrgasy katpagan* (not strengthened ribs literally) - not reached adulthood can be understood in two different meanings. One of which means not reaching the first *mushel* (12 year cycle), i.e. underage, the second meaning, concerning the second *mushel* (12 year cycle), means not formed mentally (ribs are formed completely in 25 year old age). This means that the ribs harden and support the collarbone, and is also a symbol of adulthood. That is, these are the concepts that are associated with the *mushel* (12 year cycle). In addition, the rib is the symbol of the *great body part*. For example, the creation motifs from the rib are found in the legends of Enki, Adam and Eve. "So the Lord God caused the man to fall into a deep sleep; and while he was sleeping, he took one of the man's ribs and then closed up the place with flesh. Then the Lord God made a woman from the rib he had taken out of the man, and brought her to the man." (Genesis 2.21-22) Also in the myth of the Sumerians, *Ninhursag* creates *Ninti* to heal *Enki's* rib. In the Sumerian language, the word *nin* is a mistress, and the word *ti* has several meanings: the first is *the rib*, the second is *the life*, the third is *the arrow*. *Ninti* means the owner of the rib and the god of life. And the word *Eve* according to the *Tanah* means "Who gives life" [24]. Recently, there have been reviews of the incorrect translation of the texts of the Bible. For example, according to Professor Z. Zevit, the original had the name of the genital bone, *baculum*, and

not the rib. However, this bone seems to be absent in modern humans. Also in Hebrew, Eve is called *Chavvah*. *Chay*-life, and the rib is conveyed through the word *tsela*. Then, due to the incorrect translation, the meaning of the name Eve is turned out to be *created from the rib* instead of the *giver of life* [25]. In general, the main meaning of the word Eve is *the giver of life*, confirmation of this can be provided by materials in Hebrew and Sumerian myths.

In our opinion, the meanings of the word Eve *life, the giver of life* have a direct connection with the words *am, au, uma* which are common in the vocabulary of the Turkic languages. In Turkic languages, the meaning of the words *am, au, uma* is *a body part that gives life*. The meaning of these words, in addition, served as the basis for the appearance of words related to a woman, an offspring. For example, the word *uma* among the Turkic peoples has been preserved in the name of Umay, the patroness of babies and young women. Uma is the female genitals, the uterus. In general, the name Umay is placenta. The placenta (*umay*) is formed in the uterus along with an embryo. This is the concept that existed in one of the Turkic peoples of Altai, the Kumandins (*Umay* is formed together with the embryo in the womb and protects him throughout life after the birth). *Umay* (placenta) performs the protective functions of the embryo. The meaning of the protector, patroness is shown in the image of the *Umay* mother. In the vast majority of Turkic peoples (Kazakhs, Kirghiz, etc.), the mother is characterized as a protector of children from evil spirits. In symbolic terms, the *umay* (placenta) and *Umay* (mother) represent the circle, a fortress that protects the point in the centre, that is, the embryo, the infant (Figure 1).

The Shors had two different images of Umay. Black Umay was considered a troublemaker and one who took away the well-being of children. The image of the Black Umay was created from clay in the likeness of a person and hung on a wooden board or sewed a doll from fabric, which was placed in a wooden cradle. This is done during the shaman's rituals when the child was sick or when a woman had a miscarriage. And Mai-Iche (*Umay*-mother) was depicted on a birch in the form of a bow stuck to the skin of a rabbit. It was punched in the place where the baby was born. That is, the image of Umay in the form of a bow and the meaning of the god Ninti, *ti - arrow*, completely coincide.

Then the rib - *kabyrga, kapshyk* (*uma*) - the keeper of the embryo, *umay* (placenta), developing along with the embryo, are all symbolically connected with the circle. That is, the rib here is consonant with the meanings of the creator womb and protector. *Am> ab> au> hau* (*kab*)> the semantic chain of *Haua* (Eve) has such meanings as *the life-giving body part, the beginning of life, mother, uterus, womb, fortress, offspring*.

The root of the word *uma - am* (the sounds *a* and *u* are interchangeable according to the phonetic correspondence in the language *a~u: am>um+a*). *Uma* is the name of *the great body part* (*uli mushe*) that gives birth to offspring. *Uma* (*Umay*) - is the name of both the circle and the point. When a person reaches puberty, his great body part develops and forms. The uterus, womb and part of the body giving life (*au, am*) are *the great body parts* (the sounds *h, k* are

prostheses, they can also be put at the beginning of the word) and in the Turkic languages they are all referred to one word. The names of Haua (Chavvah, Eve) and Umay formed in close connection with the name of *the great body part*. It is known that Umay has several functions. She is not only a life-giver, protector of children, she also accompanies the souls of the dead in the afterlife. In our opinion, the fact that one image gives several meanings lies in the roots of the word. In the *umay* (uterus) the child is formed and develops. When the time comes, child goes out into the world, that is, is born. And on a mythical level, the mother's uterus is also a space. To enter the second space, you need to re-enter the point (uma, genital, great body part). Then the point of intersection is the connection between the two spaces, the two worlds [1, p. 90]. The point in the picture is the point of intersection (Figure 3).

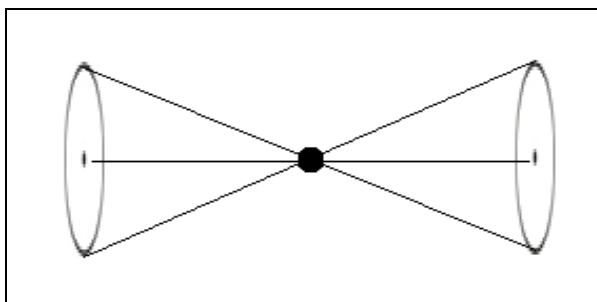


Figure 3. The point is a uma connecting two spaces, Umay.

That is, here the point - the uma, connects the two spaces. According to this model, the value of Umai is determined as a link between the worlds. In addition, it is a symbol of existence. A baby to be born passes through the point, the uma. By initiation, he dies before birth and then he's resurrected.

4. Conclusions

Symbolically, a human being is created at a point, and when he dies, he returns to that point [1, p. 35; 2, p. 87]. By initiation, a stay in a hut, a cave, is a stay in the mother's womb. And the way out of them, whether through a door or a hole, symbolizes death and resurrection. Then one word (uma) is used in several meanings (giving life, life, descendant, rib, fortress) that are related to each other.

The *bes konak* (extra days) between the old year and the new year also describes the point. It's not counted as a 13th body part. There seems to be a common understanding behind the omission of the number 13, writing it on the basis of the 12 + 1 sample, fear of the number 13 not being taken into account. It is known that the Gregorian calendar consists of 365 (366) days and 12 months. The total exclusion of an additional 5-6 days in this calendar can be attributed to the fact that the number 13 is not taken into account. Gods were born in those unaccounted days. On that day, it was believed that the door was opened between the living and the dead, and the spirits of the afterlife would

come to the Earth to see their descendants. That is why sacrifices and feasts were held for the dead. Sweet treats were prepared to please their spirits. In the Kazakh people, the smell of oil, kui (music played by dombra, kazakh national musical instrument), and wrestling have origins from this cult of the dead.

In astronomical science, there is a phenomenon called precession. It occurs due to the fact that the Earth has the shape of a geoid - flattened at the poles and the axis of its daily rotation is not perpendicular to the plane of the Ecliptic. The flatness of the Earth can be considered as the existence of a 'belt of additional mass' at its equator. The gravitational fields of the Sun and Moon, which are in the plane of the Ecliptic, affect this belt, as if trying to turn the Earth's axis of rotation and bring it to a position perpendicular to the Ecliptic. This causes the Earth's axis to describe a cone with an angle of about 470 at the top, coinciding with the centre of the Earth, for a period of 26 thousand years. In 4000 years, the North Pole of the world will be in the constellation Cepheus and in 14000 years-near the star Vega from the constellation Lyra. Even for a hundred years, the position of the North Star relative to the North Pole of the world has changed markedly. The pole became closer to the North Star on the corner for thirty minutes. Along with the poles of the world, other points on the celestial sphere have changed their position. In particular, for two thousand years, the vernal equinox point moved about 300 from the constellation of Aries to the constellation of Pisces. The phenomenon of precession also affects the change in the composition of the constellations included in the zodiac [26]. As a result of precession (one day is added in 72 years), these notions have shifted to spring. The celebration of the Great Day of the Nation, the New Year was postponed to March [27]. In the past, such events were held in winter, i.e. on unaccounted days or 'beskonak'.

References

- [1] S. Kondybay, *Mythology of prekazakhs*, vol. 1, Dike-Press, Almaty, 2004, 510.
- [2] R. Guenon, *Symbols of sacred science*, Belovodye, Moscow, 2002, 496.
- [3] E.I. Grigorieva, A.V. Kamenets, E.U. Ivanova, I.A. Korsakova and K.N. Shevalie, *Eur. J. Sci. Theol.*, **13(5)** (2017) 83-98.
- [4] V.N. Toporov, *World tree. Universal iconic complexes*, vol. 1, Manuscripts of Ancient Russia, Moscow, 2010, 450.
- [5] G.A. Sokolova, *Bulletin of Moscow State Linguistic University*, **691(1)** (2014) 138-152.
- [6] S.A. Gudimova, *Bulletin of Cultural Studies*, **3(82)** (2017) 122-134.
- [7] A. Dzitstsoity, *Nartamongæ*, **12(1)** (2017) 234-267.
- [8] P. Chelyshev, *Historical, philosophical, political and legal sciences, cultural studies and art history. Questions of theory and practice*, **24(78)** (2017) 213-216.
- [9] L.B. Gatsalova and L.K. Parsieva, *Bulletin of Moscow State Linguistic University. Humanitarian sciences*, **2(818)** (2019) 19-27.
- [10] M. Abdollakhi, *Izvestia North Ossetian Institute for Humanitarian and Social Research (NOIHSR)*, **29(68)** (2018) 152-161.
- [11] A. Bolatova and L. Gergokova, *Philology, Questions of theory and practice*, **8(50)** (2015) 26-29.

- [12] R.T Muratova, Bulletin of the Adygea State University, Philology and Art History, **1(152)** (2015) 71-77.
- [13] M.A. Pshibiyeva, *Pragmatic and discursive aspects of numerological phraseological units (based on Russian, Kabardino-Circassian, English and French languages)*, Ph.D. Thesis abstract, Kabardino-Balkarian State University named after H.M. Berbekov, Makhachkala, 2017, 27.
- [14] D. Yaoguang and L.A. Kiseleva, Bulletin of the Buryat State University. Tongue. Literature. Culture, **2(4)** (2018) 34-40.
- [15] A. Chugunekova, Philology, Questions of theory and practice, **12(11)** (2019) 432-436.
- [16] I.P. Kudriavtseva, Kurgan State University, Linguistics and Literary Studies, **1(52)** (2019) 124-127.
- [17] S.I. Seleshnikov, *History of the calendar and chronology*, Science, Moscow, 1970, 224.
- [18] M. Kashgari, *Dictionary of the Turkic language (Divani lugat-it-Turk)*, Collection of works in III volume, vol. 1, Khant, Almaty, 1998, 35.
- [19] A. Egeubaev (ed.), *Literary artifacts*, Collection of works in V volume, vol. 5, Taimas, Almaty, 2007, 547.
- [20] H. Kirlo, *Dictionary of symbols: 1000 articles on the most important concepts of religion, literature, architecture, history*, Russian translation, Centerpolygraph, Moscow, 2010, 168.
- [21] P. Ovidius, *Metamorphoses*, Russian translation, Fiction, Moscow, 1977, 600.
- [22] S.A. Tokarev (ed.), *Myths of the world nations: Encyclopedia*, vol. 1, Soviet encyclopedia, Moscow, 1988, 378.
- [23] M. Eliade, *Secret societies. Rites of Initiation and Rituals*, University Book, Moscow, 1999, 356.
- [24] M. Zilberman, Jewish antiquity, **12(36)** (2005) 87-98.
- [25] Z. Zevit, Biblical Archaeology Review, **41(5)** (2015) 32-35.
- [26] N. Sanko, *Astronomical dictionary*, Knijnii Mir, Moscow, 2002, 400.
- [27] S. Kondybay, *Mythology of prekazakhs*, vol. 2, Dike-Press, Almaty, 2004, 595.