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Nominative Characteristics of Astronomical Names in the Uzbek Language

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ABSTRACT

This article analyzes the origin, formation features, structure, naming characteristics, and etymological aspects of astronomical names.

Keywords: Star, constellations, nominativity, galaktika, mythology

INTRODUCTION

When we analyze the origin, formation characteristics, structure, and etymological aspects of astronomical names, it becomes clear that two factors should be taken into account in their naming.

The distinctive feature of the name is that the meaning of the concept is directly expressed through the graphic symbol that represents it. For example, the constellation visible in the sky and known in Uzbek as *Cho'mich* (she Dipper – the Great Bear) forms the shape of a dipper when observed from Earth, while the naming of the constellation *Tarozi* (the Scales – *Libra*) is also related to the shapes formed when the stars of the constellation are connected.

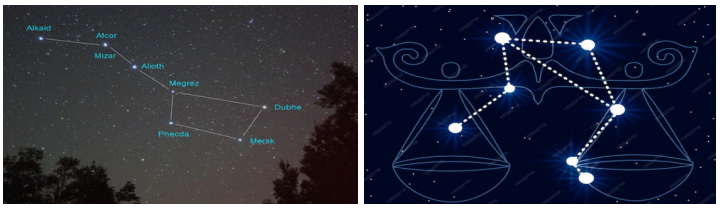

Figure 1. *The picture of the Dipper and Scales* (Libra) *constellations*

This shows that most celestial bodies have been named based on their similarity in shape.

Next in line is the issue of the role of various legends and myths that have emerged as a result of the people's imaginations in social life. For example, another name for the Dipper constellation is the "Seven Thieves." In naming this constellation, people imagined the seven brightest stars revolving around a single point and staying awake all night as resembling the life of thieves. As a result, various legends arose from this.

LITERATURE ANALYSIS

Comparative analyses of Russian linguistics and other languages related to astronomy and astronautics have been reflected in dissertations, monographs, and articles authored by scholars and researchers such as Y. Karpenko, S. M. Podvigina, Y. P. Panasova, G. Y. Gulyayeva, O. V. Chyokha, M. E. Rut, O. N. Bil, Ch. O. Vladimirovna, L. F. Fomina, M. A. Sidorenko, D. Chunyan, and A. A. Bakirova.

Research in this area became significantly noticeable mainly in the early 21st century.In our opinion, the reason for this is:

1. Firstly, due to the development of cognitive sciences, there is an increasing need to observe the anthropocentric nature in the surrounding world and to record similar features;
2. Secondly, as an effect of the anthropocentric approach in linguistics, there is an increasing need to study existing scientific problems from a linguistic and cultural (linguocultural) perspective.

Alongside Russian linguistics, several studies have also been conducted by English researchers such as Sarah at Adored Names, Marc Alecsandr, and Richard Allen. In most of these studies, attention has been focused on the names of celestial bodies and their meanings. For example, the research conducted by Richard Allen mainly discusses star constellations, zodiac signs, and their names [11: 563].

During the gradual development of Turkology, many scholars and researchers such as Kh. Abishev, Y. Nemet, V. A. Nikonov, V. N. Bogolyubov, N. Kh. Maksyutova, L. S. Levitskaya, Y. D. Karajayev, H. Dadaboyev, E. Kh. Kadirova, and Kh. Kh. Kuzmina have conducted numerous studies analyzing linguistic aspects related to celestial bodies.

Classifying astronyms is a very difficult task because the principles and methods of naming astronyms expressed in the same language are not uniform. First, we attempt to onomasiologically classify stars and constellations, but we do not claim this to be final or primary. For this classification, we analyzed several stars on the star map and divided them into the following naming groups:

1. *Names considered to be related to ancient Turkic mythology and formed as a result of transonomastication*[1] *from Turkic mythonyms and theonyms.*

Beneath each name lies historical legends well known to the Turkic peoples.

Celestial legends and beliefs related to stars and constellations such as *Oqbo'zot*, *Temirqoziq*, *Hulkar* (Alcyone), *Yetagan* (Polaris), *Qambar* (star), *Tarozi* (Libra), *Ko'kbo'zot*, as well as the *Somonyo'li* (Milky Way) and the planet *Cho'lpon* (Venus), were studied for the first time in a monographic work by M. Jo'rayev, tracing their gradual development [5].

Many legends have been told about the seven bright stars in the sky shaped like a dipper. In Uzbek, this group of stars is known by names such as *Yettiog'ayni* (Seven Brothers), *Yettiqaroqchi* (Seven Thieves), *Yetagan*, *Kattaayiq* (Great Bear), *Cho'mich* (the Dipper), and *Qoziqoti* (the Pole's Horse), while in Arabic it is called *Dubbi Akbar* (Al-Dubb al-Akbar). Although

more than a hundred stars have actually been identified in this constellation, it is famous for its seven main stars. In the *Qutadg'uBilig*, the astronomical name *Yetikän* is mentioned, and in various sources it appears in different forms such as *Yetigen/Yetagan/Jetagan/Yitigen.* The word is derived by adding the plural suffix "*-gen*", "*-gan*" to the Common Turkic root "*yete*," which carries the meaning of the number "seven" [6: 21].

In another study, it is explained that *Yetagan* is formed by adding the suffix *-gan* to the root *yetti* (seven), and that in dictionaries the element *-gan* (or *kan*) is given with meanings such as *khan* (king) or *god* [8: 166-169]. Linguist A. Primov notes that the cosmonyms *Yettiog'ayni* and *Yettiqaroqchi*, which are synonyms for the *Great Bear* constellation, are still in current use, while names like *Yetagan* and *Cho'mich* are considered archaic lexemes [9: 8].

The Turkic peoples of Central Asia tried to depict their wakefulness during the night of the *Yetagan* (Seven Stars) by comparing it to the life of pirates. As a result, many celestial legends emerged about *Yetagan – the Seven Pirates*. One of these legends says that "the Great Bear was actually seven wolves chasing travelers on Earth, and the day the wolves caught the travelers would be the Day of Judgment" [5: 29].

Depicting stars as people who originally lived on Earth and later ascended to the sky is one of the most important features of astral myths across world cultures [6: 26]. There are legends about "a king in the "Kyzylkum" Desert who had seven sons and a daughter; after the daughter was killed by enemies, the gods, moved by the cries of the sons, transformed them into stars" [6: 27].

In his information about the Seven Pirate stars, A. Primov emphasizes that the brightest star, the "Pole Star," is known by several names such as *TemirQoziq* and *OltinQoziq,* and that ancient peoples regarded it as the center of the world [8: 168].

Since the *TemirQoziq* star is very close to the pole, the stars seem to revolve around it while it appears stationary. For this reason, it was named *TemirQoziq* (Golden Stake, Pole Star)."[2]

In the celestial mythology of the Turkic people, the *TemirQoziq* (the Pole star) was imagined as the very center not

only of the sky but of the entire universe. Mahmud al-Kashgari explains this as *Qozunuq-qoziq*. That is why the "Pole Star" is also called *TemirQozunuq*. With us, it is called *"TemirQoziq",* meaning *"Iron Stake",* because the sky is believed to revolve around it. This star, called *ПолярнаяЗвезда* [12: 161] in Russian and *Тимеркаҙык* or *Алтынбаҕана* [2: 298] in Bashkir, is referred to by the Yakuts as resembling an "Iron Tree."

> According to legend, when the Earth and the Sky were created and began to slowly drift apart, an iron tree grew from the ground, and the point where its top touched the sky became the "TemirQoziq" star. [5: 32]

The onomastic scholar Y. A. Karpenko states that mythology, rather than helping to study the meanings of ancient astronomical names, actually hinders it to some extent.It is argued that the socio-historical processes occurring around us have given more meaning to the naming of the sky and its celestial bodies than the legends [7: 5]. We also believe that, as a result of scientific and technological progress, mythological views have simultaneously begun to lose their influence.

Somonyo'li in English is "the Milky Way." On a clear night, it is a cluster of stars that appears to the naked eye as a bright pathway.

The etymology of the Milky Way constellation is interesting. In the studies of linguist G. R. Abdullina, it is mentioned that the "Milky Way" is also referred to as the "Path of Jesus, the Path of the Virgin Mary, the Path of Saint Peter, the Road to Jerusalem, the Path of Saint James, and the Road to Paradise." However, among most Turkic peoples, this constellation is associated with birds and is named accordingly – among the Kazakhs as *Torna yule*, in Bashkir as *Qo'shyo'li* (Path of bird), among the Kyrgyz as *Qyrkazzary yule*, and in Tatar as *Kiekkaz yule* (Path of the Wild Goose). In the Central Asian countries, however, it is simply called the *Somonyo'li.* The peoples of Bukovina, Hungary, and Moldova refer to this constellation as the *Gypsies' Road* and in some places, it is also described as a river: Among the peoples of Chukotka, it is known as the "Silver River, the

Dusty River, or the Heavenly River"; In the countries of East Africa, it is called the "Starry Sea." The information about how this constellation is associated with the animal world among the peoples of the Caucasus – being called the "Herd's Path," and similarly among the Chechens, "the Bear's Path" – serves as valuable material for our research [1].

In Uzbek legends, *Somonyo'li* (the Milky Way) is described as a streak formed when the head of an imaginary hero touched the sky, or as the trail left by straw spilling from a cart [1: 35-41]. Many peoples of the East have viewed and named the *Milky Way* as a river. The Arabs call it "Nahr River", the Indians "Ganges River", the Chinese "Heavenly River," the Vietnamese "Starry River," and similar names [7: 7].

When talking about the names of the "Milky Way," we did not mention the word *Galaktika* at all. The name *Galaktika* comes from the Greek word for "Milky Way" (meaning "milky circle") and has been used by astronomers for centuries as a synonym for the "Milky Way."

2. *Astronyms formed by astronomical of lexemes representing animals, birds, and insects*

Most astronomical names are based on the resemblance of objects. These names are mainly formed through metaphorizations and represent an important direction in the process of nomination. Another famous Arab astronomer of the 10th century, as-Ṣufi, noted that each constellation was given the name of something it resembled" [7: 9].

The process of nomination is also conditional; the concept of objectivity can only correspond to nominative meaning within a certain space and time.Stars do not always stay in the same position; they can change their arrangement over a certain period of time.

Ancient Eastern peoples, when using celestial lights as guides for directions, grouped bright stars in the sky into certain clusters called "constellations" and gave them various names. In naming them, they relied on factors such as brightness, the resemblance of the shapes formed by the clusters, and the time of their appearance in the sky.

The Zodiac constellations (from "zoo" meaning "animal") – there are twelve of them.

Table 1. *A comparative table of the names of constellations (zodiacs) in modern Uzbek, historical (Old Turkic), Arabic, Russian, Persian-Tajik, and English*

№	Its connection with the calendar months	Names in the modern Uzbek literary language	Historical (Old Turkic) names (based on the sources *DiwanLughat al-Turk* and *QutadguBilig*)	Arabic names	Russian names	Persian-Tajik names	English names
1.	Mart	Qo‘chqor	Qo‘zi	حمل (Hamal) // Kabsh	Овец	Barre	Aries
2.	April	Taros (Buqa, buzoq)	Ud, Uy	ثور (Savr)	Телец	Gov	Taurus
3.	May	Egizaklar	Tav’amon, Erandiz	جوز (Javzo)	Близнецы	Dupaykar	Gemini
4.	June	Qisqichbaqa	Qo‘chiq, chazan	سرطان (Saraton)	Рак	Xarcheng	Cancer
5.	July	Arslon	Arslon	اسد (Asad)	Лев	Sher	Leo
6.	August	Boshoq	Bug‘doybosh og‘i	سنبلة (Sunbula)	Дева	Xosha	Virgo
7.	September	Tarozi	Ülgü, erandiz	میزان (Mezon)	Весы	Tarozu	Libra
8.	Oktober	Chayon	Chazan	عقرب Aqrab)	Скорпион	Gajdum	Scorpion
9.	November	Yoy (o‘qotar)	Yo	قوس (Qavs),Romiy	Стрелец	Kamon	Sagittarius
10.	Decaber	Tog‘ echkisi	O‘g‘laq	جدی (Jadiy)	Козерог	Buzg‘ola	Capricorn
11.	January	Qovg‘a	Könək	دلو (Dalv)	Водолей	Do‘l	Aquarius
12.	Februay	Baliq	Baliq	حوت (Hut)	Рыбы	Mohiy	Pisces

If we examine the onomastic terms used in astronomy separately, their semantic models can be categorized somewhat differently from the above into the following groups. However, this classification is primarily determined and defined by dialectal materials:

1. Names formed based on household items and weapons used by people in their daily life: Arrow, Iron Stake, Bucket, Elak (the star cluster known as Pleiades is now called Elak Star among the people). In earlier written literature, it was referred to as Hulkar), Ladle, Shield, Sword, Milky Way, Coffin, Bucket, Bowl;
2. Names formed through the eponymic process or those that have transitioned into eponyms: *Hulkar* – (Arabic: *Surayya*); *Banot* (Girls) – the stars of the Little Bear; Jupiter (*Mushtariy*); *Hydra; Spica, Venus star* [3: 92]. In Kazakh, it is *Sholpan*, in Kyrgyz, it is *Cholpan.* In Russian, *Венера* (Venus) is regarded as the goddess of love [1: 1141-1145]; *Persey, Persion* (Weeping Sirius)*, Ulugbek's* Star;
3. Names related to the concept of time: Morning Star (Venus, *Zuhra*);
4. Names related to the meaning of color: Golden Stake, Red Star, Mars (the Red Planet), and others;
5. Names based on positions in the sky: Northern Crown, Northern Donkey, Pole Star;
6. Names formed based on numbers: Seven Robbers (*Yetegan*, *Jedegan*);
7. Names derived from professions and kinship terms: Bow (Archer), Charioteer Gemini (Twins), Orion (Hunter);
8) Astronomical names based on letters and shapes: Such names are the result of nominations obtained through the process of calquing from later European astronomy. Triangle (*Triangulum*), Alpha, Beta, Delta, Gamma of the Big Dipper, and others.

> The Arab peoples referred to a star as 'najm,' and the plural of najm is 'nujum.. The science that deals with the nature of stars was historically known as 'Ilm al-Nujum,' meaning the science of stars. Currently, the term 'astrology' is used in science. [13: 158-159]

As a result of the active use of linguistic units from Persian and Arabic in our lexicon, borrowed terms related to stars have become part of the synonymic series in our language: *yulduz* (Uzbek), *sitara* (Persian), *anjum* (Arabic), *nujum* (Arabic), *axtar* (Persian), *kavokib* (Persian), *kavkab* (Persian), etc.

NOTES

1. This phenomenon is described in Russian linguistics as “трансонимизация – the transfer of a name from one category to another.” Cf. N. V. Podolskaya, *Dictionary of Russian Onomastic Terminology*, Moscow, 1978, pp. 152-153. Transonomastication is a special method of forming nouns from nouns in a language.
2. https://uz.wikipedia.org/wiki/Temir_qoziq

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