

ASTRONOMICAL TERMS PROVIDED IN “KUTADGU BILIG”

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ABSTRACT

This article addresses the necessity of improving the lexicographic interpretation of terms related to astronomy, which has arisen as a result of the development of intercultural, social, economic, and political relations, alongside the increased demand for scientific research in this field. It emphasizes the need to systematically interpret the genealogical, structural, and semantic aspects of these terms, regulate and nationalize them to a standard level, and include them in explanatory dictionaries. This issue has been elucidated through descriptive, classificatory, and comparative methods of linguistics.

Keywords: illustration, lexicographic classification, genealogical description, secant, astronomy, kayvan (This is an old or poetic term for a celestial body, sometimes used for "planet" or "star" (context-specific), planet.

INTRODUCTION

In response to the current development requirements of Uzbekistan, extensive reforms are being implemented in areas such as state and public administration, international relations, science, education, healthcare, culture, and the arts¹. These reforms have undoubtedly had a significant impact on our language, particularly on the development of its vocabulary. They have led to the emergence of numerous new terms in the Uzbek language. Among these new terms, the terminology related to astronomy holds a distinctive place. Therefore, at the current stage of scientific and technological development, it is important to study astronomical terms from a linguistic perspective. After all, the development and advancement of any field are closely linked to how well its terminology has evolved and how systematically it has been organized². If the terms or expressions used in a specific field are not clear and precise, confusion and ambiguity are bound to persist. Since an explanatory dictionary dedicated to astronomical terms in the Uzbek language has not yet been created, developing such a dictionary for this field could serve as an invaluable resource. For instance, explanatory dictionaries have already been developed for fields like linguistics, history, and medicine. These dictionaries not only contribute to the development of the respective fields but also serve as key resources in training potential specialists and in assessing the progress and

¹The speech delivered by the President of the Republic of Uzbekistan, Shavkat Mirziyoyev, at the ceremonial event held in honor of the 30th anniversary of the Uzbek language being granted the status of a state language. / Xalq so‘zi, No 218, 22.10.2019.

²Nurmonov A. and others. Hozirgi O‘zbek adabiy tili. -T.: Sharq, 2002. – pp. 62-63

shortcomings of the scientific community. It has been emphasized in the guidelines for creating an explanatory dictionary in Uzbek that, unlike general words, it is essential to provide accurate interpretations of terms within a specific field.³ This requires collaboration with experts in the relevant field to ensure precise explanations. From this perspective, it is extremely important to expedite the creation of an explanatory dictionary of astronomical terms to assist the development of the Uzbek scientific language, monitor changes in terminology, and identify factors that promote the enrichment of the Uzbek language's vocabulary.

METHODOLOGY

It is well known that the study of celestial bodies and phenomena in the field of astronomy has fascinated humanity for centuries. As this field continues to develop, the need for clear and precise explanations of astronomical terms is becoming increasingly important. As V.P. Danilenko emphasized, the measure of progress in any science or field is also determined by the extent to which it possesses a "rigorous scientific terminology"⁴. The scholar acknowledges that the concept of "rigorous scientific terminology" encompasses the alignment of a specific field's terminology with the development of that science, the consistency of the terminology in expressing concepts related to that field, and the correspondence of the terminology in use with the language of a particular science. Overall, the clarity and precision of terms indicate the level of a nation's science, education, and culture. In the context of the study of astronomical terms in Uzbek linguistics, we can cite the dissertation by linguist A.I. Primov⁵, which focuses on the linguistic characteristics of cosmonyms. In his work, the scholar investigates the names of celestial bodies, which are considered a branch of the field of astronomy, both in artistic literature and among the people. In Uzbek literary studies, it is worth mentioning Saidbahrom Azizov's book titled "Alisher Navoiy asarlarida falakiyot sirlari" (The Secrets of Astronomy in the Works of Alisher Navoi) The book discusses the role of Ulugbek Astronomical School in the formation of Alisher Navoi's cosmogonic worldview and provides information about astronomical knowledge in Navoi's works (astronomical instruments, models of the universe, celestial bodies, celestial phenomena) as well as the sources of astronomical information in the poet's works⁶.

DISCUSSION AND RESULTS

Uzbek terminology during the independence era has experienced significant development, particularly in the 21st century, with the advent of the internet. The rapid development of contemporary Uzbek terminology has enriched and refined the language's lexicon. During this period, the role of purely Uzbek lexical units, alongside Russian and international terms, has been prominent in the formation of the system of specialized terminology. This is particularly evident in the terminology of the natural sciences, especially in astronomical terms. Alongside its substantial native contributions, the presence of borrowings has also maintained a notable

³ Hojiyev A. Termin tanlash mezonlari. – Tashkent: Fan, 1996. – p. 46

⁴ Даниленко В.П. Русская терминология: Опыт лингвистического описания. -М.:Наука, 1977. P. 57

⁵ Primov A. I. O'zbek tili kosmonimlarining lisoniy xususiyatlari. PhD Dissertation Abstract. – Tashkent: Academy of Sciences of the Republic of Uzbekistan, 2009. – p. 24.

⁶ Azizov S. Alisher Navoiy asarlarida falakiyot sirlari. – Tashkent: Uzbekistan NMIU, 2018 p.136

position. During this period of development, we can observe that Uzbek terminology is evolving by utilizing its internal resources and the wealth of unrelated languages. The efforts of researchers to systematically study the system of terms in light of the linguistic and extralinguistic factors influencing language development have created opportunities to obtain valuable information that can further enhance general terminology theory. The inclusion of astronomical terms and information related to the genesis of terms in the explanatory dictionary allows for various reflections on the influence and correlation of different languages in shaping the current lexical state of the language. It can be said in response to emerging opinions that in explanatory dictionaries intended for a broad readership, variants of terminological units that are closer to the spoken language are actively featured. This, in turn, reflects a respect for our national language. The recommendation to include terms related to this field not only from specialized literature but also from Uzbek classical literature expresses a profound respect for our national language.

Yusuf Khass Hajib, who held the position of vizier during the Qarakhanid dynasty, composed a poetic work in the Turkish language to glorify Turkic peoples. His work, “Qutadg‘u Bilig” (The Knowledge That Leads to Happiness), is a treatise encouraging individuals toward perfection. In this work, issues such as humanity and faith, individuals and society, and individuals and duty are articulated in a very simple and beautiful poetic style through symbols and metaphors. Without undermining the value of rare works such as “Kalila and Dimna,” “Mahabharata,” “A Song About Ayvengo,” and “Qobusnoma” it should be emphasized that “Kutadgu Bilig” is highly esteemed in terms of artistic thought, research scope, and poetic value⁷. The fifth chapter of the work, titled “Yetti sayyora va o‘n ikki burj bayoni” (The Description of the Seven Planets and Twelve Zodiac Signs) presents the Turkic names of celestial bodies from the 10th century. One of the effective means of enhancing understanding is the use of illustrative examples in expressing terminology⁸. Including illustrative examples in explanatory dictionaries allows users to become familiar with scientific concepts and better assess scientific style. Through exposure to these examples, readers learn to engage in critical thinking, analyze information, and analyze/synthesize relationships between various astronomical phenomena⁹.

These examples not only clarify the definitions but also help the user gain a deeper understanding of the wonders of space. Below, we will examine the presentation of astronomical terms with illustrative examples from “Kutadgu Bilig” (translated from Old Turkic by Emin Usmon):

...Baridan yuksakda **Sekantir** turar,

Ikki yil sakkiz oy bir burjda turar.

(Above all **Saturn** stands,

For two years and eight months, it holds its lands.)

Sekantir refers to the planet Saturn. In the Explanatory Dictionary of Uzbek Language (O‘TIL), the following information is provided about this planet: **SATURN** [Latin Saturnus —

⁷ <https://kh-davron.uz/kutubxona/jahon/turk/yusuf-xos-hojib-qutadgu-bilik-emin-usmon-tarjimasi.html>

⁸ Mengliyev B. Lug‘oviy ko‘p ma‘nolilik lison va nutq bo‘linishida//O‘zbek tili va adabiyoti. – 2000., №5. – pp. 51-54.

⁹ F.Bakhtiyarova. O‘zbek tilshunosligining terminologiyasi, xususan, astronomiya sohasining terminografiyasi masalalari//Chet til ta‘limida zamonaviy yondashuv tamoyillari va ilmiy-amaliy tarjima. Republic Scientific-Practical Conference. –Tashkent, May 23, 2023. – pp. 164-168

in Ancient Roman mythology: the god of agriculture and the patron of farming] (**S** — uppercase) **astr.** The sixth planet in the Solar System in terms of distance from the Sun and the second largest, known for its rings; also called Zuhal or Kayvon. Saturn was first observed by Galileo in 1610. (Uzbek National Encyclopedia)¹⁰.

Ikkinchi o'rinda turadi **O'ngoy**,

Bir burjda qolar rosa o'n ikki oy.

(In second place stands **Jupiter** bright,

It stays in one sign for a full twelve months' flight.)

O'ngoy refers to the planet Mushtariy (Jupiter). In the Explanatory Dictionary of Uzbek Language (O'TIL), the following definition is provided: **JUPITER I** [Latin Jupiter — in Ancient Roman mythology: the supreme deity, the chief god] (**J** — uppercase) **astr.** The largest planet in the Solar System and the fifth planet in terms of distance from the Sun; also known as Mushtariy.

There are several folk tales related to this planet. According to one, the meeting of the planets Mushtariy (Jupiter) and Zuxro (Venus) leads to the birth of a great person on Earth.

Uchinchi **Ko'ruddir** g'azabnok yurar,

Qayon boqsa jam'i yashnagan qurar.

(The third is **Mars**, it moves with wrath,

Wherever it gazes, all blooms meet their path.)

Ko'rud refers to the planet Mirrix (Mars). In the Explanatory Dictionary of Uzbek Language (O'TIL), the following definition is provided: **MARS** [Latin Mars — in Roman mythology: the name of the god of war] (**M** — uppercase) **astr.** One of the nine major planets in the Solar System, the fourth planet from the Sun; also known as Mirrix

The ancient Egyptians believed that Mars (referred to as Mirrix or Bahrom in literary texts) was the god of war, conflict, and destruction. This association with war and violence highlights Mars' long-standing cultural significance as a symbol of aggression and hostility.

To'rtinchi **Quyoshdir** yoritar jahon,

Uzog'u yaqinni, duch kelgan tomon.

Xushchiroyin ko'rsatsa beshinchi **Savit**,

Va mehr-la boqsa, sen o'zing ovut.

(The fourth is the **Sun**, lighting the earth,

It brightens all, in distance or girth.

The fifth is **Venus**, with beauty it gleams,

Its warmth soothes the soul, like soft, gentle beams.)

Savit — Zuhra. Chulpon (Morning Star). In the explanatory dictionary: Zuhra [Arabic, noun] (3rd degree — large) **1 acrp.** The Arabic name for one of the major planets in the solar system — Venus. **2** Zuhra (a female name).

Then rises the Star of **Dreams** so bright,

Bringing wishes close, within reach of light.

Orzu — the star of Otorud (Mercury). In the Explanatory Dictionary of the Uzbek Language (O'TIL): **MERCURY** [Latin Mercurius — in Roman mythology, the god of commerce and

¹⁰The Explanatory Dictionary of the Uzbek Language. Volume 3. – Tashkent: Uzbekistan National Encyclopedia, 2006. – p 688.

livestock, as well as the patron of travelers] (M — uppercase) **astr.** One of the nine major planets in the Solar System, the closest to the Sun.

Bulardan quyida **Yolchiq** turadi,

Quyoshga ro'baro' bo'lsa to'ladi.

(Below them, the **Moon** stands high,

When it faces the Sun, it fills the sky.)

Yolchiq — the Moon. In the Explanatory Dictionary of the Uzbek Language (O'TIL): MOON (M — uppercase) **astr.** A celestial body that reflects light from the Sun, the natural satellite of Earth. The fourteen-day moon. Full moon. Moonlight. The moon has risen. The moon has set. Spots on the surface of the moon. The moon's orbit around the Earth. Oyni etak bilan yopib bo'lmaydi (One cannot cover the moon with an apron. Proverb). Kechki gullar ochilib turibdi. Ko'kda tanho oy kezmoqda. (The evening flowers are in bloom. The lone moon is wandering in the sky.) I. Rahim, Chin muhabbat (I. Rahim, True Love)

CONCLUSION

It can be observed that of the celestial bodies mentioned by the writer above, only one (the Sun) is relevant to both ancient and modern languages, while the names of the remaining six celestial bodies are unique to the ancient Turkic language. The inclusion of such ancient Turkic celestial body names, along with illustrative examples, in explanatory dictionaries reflects an appreciation for our national language. Examining the semantic-structural aspects of these terms with consistent detail provides practical benefits, especially in creating specialized descriptions for astronomical terms in dictionaries, refining their definitions as technical terms, and selecting relevant terms within specific fields for inclusion in such dictionaries.¹¹ In this regard, it is important to consider the significance of presenting astronomy-related terms with illustrative examples in explanatory dictionaries and how this contributes to a broader understanding of astronomical concepts.

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