

DOI: <https://doi.org/10.36719/3005-3137/10/224-230>

Talgat Moldabay

L.N. Gumilyov Eurasian National University

Doctor of Philosophy in Philology

Astana, Kazakhstan

<https://orcid.org/0000-0001-7148-8945>

talgatmoldabay@mail.ru

The history of development of alphabet in the Turkic world

Abstract

The steppe nomads, who are primarily of Turkic descent, played a significant role in the political, historical, and cultural growth of various systems. The advancement of a culture can be best demonstrated through its writing system. An examination was conducted to evaluate the extent to which the descendants of steppe nomads embraced this cultural phenomenon and contributed to its progress. Hence, the growth of written culture among the Turkic people, including its various phases, geographical dissemination, and practical use, holds significant importance. In our study, we concentrated on the different stages of development of the Turkic writing culture. We provided a concise history of the written forms used their origin and intended purposes, and illustrated them with specific examples through various written artifacts. Our emphasis was on the works of researches who analyzed writing patterns, presented their perspectives on the history of writing, its rage, and the role of the writing system in language. Therefore, we attempted to arrange the writing systems employed by the Turks in chronological order and uncover the cross-culture associations among these writing systems.

Keywords: *writing, culture, Bitig, alphabet, history of writing, Turkic peoples, steppe nomads, ancient Uyghur writing*

Talgat Moldabay

L.N. Qumilyov adına Avrasiya Milli Universiteti

Filologiya üzrə fəlsəfə doktoru

Astana, Qazaxıstan

<https://orcid.org/0000-0001-7148-8945>

talgatmoldabay@mail.ru

Türk dünyasında əlifbanın inkişaf tarixi

Xülasə

Əsasən türk mənşəli olan çöl köçəriləri müxtəlif sistemlərin siyasi, tarixi və mədəni yüksəlişində mühüm rol oynamışdır. Mədəniyyətin tərəqqisini ən yaxşı şəkildə onun yazı sistemi ilə nümayiş etdirmək olar. Çöl köçəriləri nəslinin bu mədəni fenomeni nə dərəcədə mənimsəməsi və onun tərəqqisinə töhfə verməsini qiymətləndirmək üçün tədqiqatlar aparılıb. Deməli, türk xalqları arasında yazılı mədəniyyətin inkişafı, o cümlədən onun müxtəlif mərhələləri, coğrafi yayılması və praktik istifadəsi mühüm əhəmiyyət kəsb edir. Tədqiqatımızda türk yazı mədəniyyətinin müxtəlif inkişaf mərhələləri üzərində dayandırıq. İstifadə olunan yazılı formaların mənşəyi və təyinatının qısa tarixini təqdim etdik və müxtəlif yazılı artefaktlar vasitəsilə konkret nümunələrlə təsvir etdik. Diqqətimiz yazı nümunələrini təhlil edən və yazının tarixi, populyarlığı, yazı sistemlərinin dildə rolu ilə bağlı fikirlərini təqdim edən tədqiqatçıların işinə yönəltmək oldu. Ona görə də biz türklərin istifadə etdikləri yazı sistemlərini xronoloji ardıcılıqla sıralamağa və bu yazı sistemləri arasında mədəniyyətlərarası əlaqələri müəyyən etməyə çalışdıq. Tədqiqatımız türk xalqlarının müxtəlif mədəniyyət hadisələrini, o cümlədən çoxsaylı dini və yazı sistemlərini mənimsəmək istəyini, eləcə

də yeni ideya və inkişafə uyğunlaşma qabiliyyətini nümayiş etdirdi. Buna görə də biz türklərin işlətdiyi yazı sistemlərini xronoloji ardıcılıqla sıralamağa və bu yazı sistemləri arasında mədəniyyətlərarası əlaqəni üzə çıxarmağa çalışdıq.

Açar sözlər: yazı, mədəniyyət, Bitig, əlifba, yazı tarixi, türk xalqları, çöl köçəriləri, qədim uyğur yazısı

Introduction

The alphabet, which originated from the symbols “aleph” and “beta”, the first two letters of the Greek alphabet, has evolved over time and established itself as a writing system for modern alphabets, where each character represents a distinct sound. Pictography, a form of writing that uses pictures to convey meaning, is regarded as a significant achievement in human civilization and marks the beginning of the culture of writing. As pictorial writing evolved, it led to the development of ideographic writing, marking another important stage in the evolution of writing culture. Complex writing patterns that encompassed all stages of the development of human civilization in the history of writing were based on the writing systems of Egyptian, Cretan, and Hittite cultures, which were formed in the region between two rivers (the Amurdaria and Syrdaria rivers) during that time period. Some scholars suggest that these writing systems incorporated elements of pictorial writing (pictography), ideographic writing and primitive syllabic writing, which was a type of phonetic writing that emerged in a later period of writing culture (Hatice, 2006, p. 15).

Cuneiform writing was employed by several ancient civilizations, including the Sumerians, Akkadians, Babylonians, Assyrians, Hittites, Elamites, Mitanni, Urartians, and Persians, and is considered to be the earliest known of phonetic writing. In cuneiform, there were symbols, ideograms, phonetic symbols, and determinatives that represented the action. During the 7th and 6th centuries BC, the Aramaic language became dominant in the region, which led to the displacement of cuneiform writing by Aramaic writing (Gelb, 1982).

The Egyptian hieroglyphic writing, which was considered sacred writing, is one of the most significant writing systems of ancient times, dating back to the period between 4000 and 400 BC. This writing system was called hieratic and demotic, depending on the specifics of writing. The hieratic type was a cursive form of hieroglyphic writing. It required specialized education to learn. Demotic writing was a simplified derived from the hieratic, which was used by ordinary people for everyday purposes (*demos* means *people* in ancient Greek). Jean-Francois Champollion, a French Orientalist and linguist, gained worldwide fame in 1822 for deciphering the inscription on the Rosetta Stone, which contained 14 lines of hieroglyphs.

In the Indus Valley Civilization of India, it is believed that a single writing system was used based on ideographic wedge, and syllabic symbols, which later gave rise to the Brahmi script in around 2500 BC (Coulmas, 2006, p. 73).

Another writing system that does not follow an alphabetical order is Chinese writing. The Oldest known forms of Chinese writing date back to the 18th to 12th centuries BC. It is evident that the ideograms used in the ancient versions of the scripts have transformed into modern logograms (Yogannes, 1979, p.112).

Additionally, non-alphabetic writing systems gradually gave way to alphabetical writing systems. The earliest known examples of the alphabet were discovered in Mesopotamia between 1700-1330 BC. As a result, the early investigations and hypotheses on the origins and progression of writing emerged, attempting to establish a link between the initial and final forms of writing. It was believed that the Egyptian hieroglyphic script came from the Sami script, and the Northern Same script came from the Egyptian hieroglyphic script. The initial Sami script was categorized into two main groups – the Southern and Northern Sami script. The Southern Sami script (Aramaic) gave rise to several scripts including Ibanı (Hebrew), Palmyra, Nestorian, Manichaean, Brahmi, Kharosthi, Sogdian, Armenian, Georgian, and Tibetan. On the other hand, the Northern Sami script (Phoenician) led to the development of scripts such as ancient Libyan, Iberian, Greek, Slavic, Etruscan, Lycia, Phrygian,

Lydian, Arabic and Latin (Loukotka, 1950, p. 61). Although there are some writing systems that remain to be explored, such as the Indian script and the Turkic bitig script, whose origins are not yet fully understood.

Materials and research methods. Although there are some writing systems that remain to be explored, such as the Indian script and the Turkic bitig script, whose origins are not yet fully understood. We utilized various methods such as systematization, classification, historical analysis, and general scientific approaches, from specific to general and vice versa, to achieve our research objectives. Our main focus was the culture of writing, and we analyzed various writing systems in their historical context by citing specific references to historical sources and materials. Our approach to analyzing the types of writing was based on chronological selection of written data and conducting a historical and comparative analysis of these writings.

Research

The types of writing that were utilized during the ancient Turkic period. Although writing culture among steppe nomads can be traced to the periods of the Saka and Huns, the writing culture of peoples with Turkic origins began with the use of the bitig script. Initially, this form of writing was called the Siberian rune or Yenisei rune, and later the Turkic rune due to its resemblance to the writing of ancient Scandinavian peoples. The writing system used in ancient Turkic monuments was named "bitig" after it was identified, and later referred to as "Turkic bitig inscription" (Amanzholov, 2010).

The origin of this ancient script remains unclear, despite some studies that have been conducted on it. Since no specific educational system has been identified based on the inscriptions found on a silver bowl in the Issyk mound dating back to the 4th and 5th centuries BC, the Turkic bitig writing is considered as proto-Turkic writing. The classical Turkic bitig writing period is believed to have been used from the choir script written in around 687-692 to the 7th – 10th centuries, according to the chronological indications. To categorize ancient Turkic bitig monuments, they are classified into two groups: "bitig ispetty" (runic-like scripts) and "Turkic bitig" (Turkic runic script).

The ancient Turkic bitig was not only used in the Orkhon region, which was regarded as the birthplace of the Turkic Khaganate, but also widely spread across many parts of the Eurasian continent. This includes areas such as eastern Mongolia, southern Siberia, East Turkestan (China), Central Asia, Mountain Altai, Eastern Europe, and Fergana (Zholdasbekov and others, 2005).

According to some scholars, the origin of the ancient Turkic bitig script can be traced back to the Scandinavian runic script, as proposed by the Finnish scientist Heikel. On the other hand, other scholars such as Otto Donner, Heinrich Julius von Klaproth, and Altai Amanzholov have suggested that the ancient Turkic bitig script may have originated from one of the oldest forms of Semitic script. Wilhelm Thomson and V. Radlov believed that the ancient Turkic bitig script may have been influenced by the Aramaic and Sogdian scripts, while Aristov and Melitsky were the first to suggest that the script could have originated from symbols used by the Turks themselves. Turkic scholar, including Ahmet Zafaroglu and Huseyn Namyk Orhun, later supported the idea that the ancient Turkic bitig script might have been originated from the Turks' own symbols. Later, scholars such as E.D. Polivanov and V.A. Livschits suggested that the script may have been created based on their own, with some influence from Aramaic and Sogdian script. Some scholars, including O. Pritsak and A. Rona Tash argue that the ancient Turkic bitig script is a syllabic writing system.

Regardless of the origin of the ancient Turkic bitig script, I believe that the main issue is that this writing has been rooted and developed in the Turkic language. To clarify, we can observe that the inclusion of consonants in the ancient Turkic bitig script demonstrates a clear adherence to the principles of consonance in the language. The process of modifying consonants according to the principle of consonance is not observed in any other writing system. In addition to this, we can identify specific and rigorous spelling rules that are unique to this law of vowel consonance. It is necessary to mention the spelling rules for the vowels produced by the lips and the glottis. Along with the alphabetic elements of the ancient Turkic bitig script, it also contains elements of logographic and syllabic writing (Moldabay, 2016, p.117).

The ancient Turkic bitig script is made up of 38 letter characters, which are used for solid body writing and consist of vertical and horizontal lines. Among these characters, four represent vowels and 31 represent consonants. Additionally, there are three ligatures used to denote double consonants and four characters representing bun sounds. Of the 20 consonant sound characters based on the law of consonance, one sound is represented by two characters, while 7 consonants are written without following any law of consonance, but instead depend on the harmony with the enemy and thin vowels (Shaimerdinova and others, 2017).

With the collapse of the Turkic Khaganate, the Uyghur Khaganate took over and initially continued to use the Turkic bitig script. However, they eventually transitioned to using the Manichaean and Uyghur script. Consequently, the Turkic bitig script gradually fell out of use and was eventually forgotten. During ancient times, one of the primary reasons for the emergence of writing was its usefulness in trade for matters of registration and valuation. As centralized state systems began to develop, writing was utilized for tax registration and religious missions. With the establishment of the Uyghur Khaganate, there was a shift towards settling in one location and developing a city-based culture. This led to the growth of crafts and trade. As trade became the main source of income, there was a significant increase in its economic importance, and a great deal of effort was put into its development. The influence of Sogdians, who controlled trade routes in Central Asia, grew in the Uyghur Khaganate. They also played a significant role in spreading the Manichaean religion. Manichaean missionaries spread their religion in the Uyghur Khaganate, and many Uyghur nobles converted to it. The Bagu Khagan, who came to the throne in 692, made Manichaeism the official religion of the Khaganate. As a result, many religious texts related to this religion were written in Turkic using the Manichaean script. The “Uyghur script” was developed with the involvement of scholars and gained wide support in the urban population. (Moldabay, 2021, p.46). During this period, texts were written in the Manichaean script, which included additional symbols above the main writing symbols. It is believed that these additional features represent the unique Uyghur pronunciation of the letters, and this was likely a feature of the period when the Manichaean script was being adapted as the Uyghur script.

The use of the Sogdian script dates back to the establishment of the Turkic Khaganate and was influenced by Sogdian merchants who traveled along the Silk Road. Examples of this script can be seen in the Sogdian inscriptions in the Bugut text, which was created for Mukan Khagan, as well as in Chinese, Sogdian, and Uyghur inscriptions in the Karabalsagun text from the 9th century during the Uyghur Khaganate period. Additionally, a Sogdian inscription was found on one page of the Servey inscription in the Southern Gobi region. It is important to note that the richest texts in ancient Turkic literature were written in the Uyghur script. A. von Gaben suggested that the period of 750-827 marked the beginning of the use of the Uyghur script, while Turkic scholar S. Chagatai noted that it is difficult to pinpoint an exact date, but the script was likely in use from the first half of the 8th century to the middle of the 9th century. G. Clauson, on the other hand, believed that the Uyghur script was used even before the 8th century (Clauson, 1986, p. 146). Considering these varying opinions and the discovery of later Uyghur texts, it can be confidently stated that the ancient Uyghur script used from the beginning of the 8th century until the 18th century in various regions such as southern Siberia, along the Yenisei River, Mongolia, East Turkestan (China), the Volga River Basin, Transcaucasia, Azerbaijan, Georgia, and parts of the Ottoman Empire. The Uyghur script, which was created by adapting the Sogdian script with consideration for national phonological features, made a significant contribution to Turkic culture during the Middle Ages. After the fall of the Uyghur state, the Naiman state, the Karakitai state, and the Mongol empire used this script as their official writing system. It is evident that the creators of the Manju, Kalmyk, and Buriyat alphabets were influenced by this Uyghur script during the spread of their respective religions. The Uyghur alphabet consists of 18 letter characters written from right to left, with 3 of them representing vowels and the other 15 representing consonants. The spelling of the letter characters is different at the beginning, middle, and end of a word.

Some experts suggest that the Brahmi script may have originated from a variant of the Sami script, which was an Aramaic writing system, rather than from the Phoenician script. However, in more recent research, scholars have been leaning towards the idea that the Brahmi script was based on the dravide culture, which was a native Indian culture, and that the early Indian religion was created using images (Lundysheva and others, 2021). The Brahmi script was used from the 8th century BC until the 6th century BC and was primarily used for religious purposes, hence its name. During the Uyghur Khaganate period, the Turks were introduced to the script and used it mainly for Buddhist texts. Opinions about the origin and date of the script vary among scholars. A. von Gaben believed it was used by the Turks in the 10th century, while G. Clauson argued it dates back to around the 2nd century BC, predating the Turks. Considering that the one of the faces of the deer monument, erected in the era of the I Turkic Khaganate, is written in Brahmi inscription, we can agree with the opinion of G. Clauson. This writing system is read from the left to right and is considered to be syllabic in nature. The Turks adopted the Brahmi script during the Uyghur Khaganate and added 7 characters to the original 28-letter script, as evidenced by texts from that period. There are over a hundred texts that were written in the Brahmi, and its modern symbol dates to the same era.

The adoption of Tibetan writing by Turkic peoples was not solely due to the spread of Buddhism, but also had political motives, as the Tibetans aimed to conquer East Turkestan. In the 8th and 9th centuries, Uyghurs and Tibetans lived in close proximity in the Gansu region, where Buddhism became popular among the Turks. The rise in popularity of Buddhism among the Turks living in the Gansu region led to the spread of Tibetan writing among them. However, it should be noted that the use of Tibetan writing among Turks was confined to this region only. Tibetan writing is characterized by its right-to-left direction and includes characters that represent both syllables and alphabets. The writing system consists of 30 consonants characters, 5 vowel characters, and 4 additional characters that serve a different purpose. Several texts written in the Tibetan script were found among the inscriptions discovered in the Dunhuang region's Thousand Buddhas Cave. These texts are currently preserved in the National Library of Paris (Bibliothèque National) (Turanskaya, 2020).

In the 2nd century AD, Christian missionaries began spreading the religion among Turkic peoples, and the Nestorian sect, which originated from Syria, gained popularity among them. During this time, Uyghur translations of Nestorian religious texts were produced. Estrangelo inscriptions, one of the oldest forms of Syrian writing, were discovered in the Nestorian church in the Turfan region of China. Because of the phonological features of the Turkic language, some letter characters were modified with additional markings to better suit Turkic pronunciation.

Writing systems used by the Turks in the new era (after the 10th century). The Karaman Oghuzs, who followed the Orthodox sect of Christianity, used the Greek alphabet for their writing system. They used this writing system for literary works, religious texts, educational materials, and textbooks to teach this writing system. The Greek script has its origins in the northern Sami variants of the lesser Asian Sami script, which is believed to have come from the Phoenician script. However, since the Greek script did not fully represent the phonology of the Turkic language, additional diacritical marks were added to some characters to compensate for this deficiency.

The Turks established close ties with the Arab world during the time of the Umayyad Caliphate and this connection continued to develop during the Abbasid era when large numbers of Turks with strong military capabilities were employed as mercenaries. The Samanid period was fully established, further strengthening this connection. As a result, during this period, the use of the Arabic script began to emerge among the Turks, alongside the already established Uyghur script.

It is claimed that the Arabic script has its origins in the Estrangelo script of the Syriac language, although there are also claims that it originated from the Nebati wheel script of the Semitic languages. The Arabic script was widely used among various peoples during this period. It is worth nothing that the Arabic script was adapted by the Turks at different times by adding new characters to accommodate the phonological characteristics of their language. For example, the Arabic script was adopted by the Kazakhs in China, the Azeris in Iran, and the Uighurs in East Turkestan. For many

centuries, the Turks have been using Arabic writing, which is based on consonants, and they have developed it over time by adding vowel characters. During this time, there was no mention of the inadequacy of this writing in terms of Turkic phonology. In the history of Kazakhstan, Arabic writing holds a significant place in the culture of Kazakh writing. It was used in various forms such as Chagatai writing, Kote writing, and other names, and was used to record the literary works of Steppe courts and writers.

Turkic scholars and educators have attempted to replace the Arabic writing system since the mid-19th century. The reasons for this include the inadequacy of the Arabic script in fully representing the phonology of the Turkic language, regional differences in teaching the script, its prevalence among the population, and difficulty in learning. Akhmet Baitursynov insisted on keep using the Arabic writing with systemizing according to the language and traditions, while prominent figures advocating for the change include such scientists as Sait Khalif, Mirza Kazim Bek, Ibyrai Altynsarın, and Russian scientists P.M. Melioransky. The issue of replacing the Arabic script was among the main topics discussed at the Baku Turkology Congress held from February 26 to March 6, 1926. Alimzhan Ibrahim, Akhmet Baitursynov and some Muslim clergy members supported the improvement of the Arabic script. However, the majority voted to adopt a new writing system based on the Latin alphabet. This decision was made at the Baku Turkology Congress in 1926. Despite its adoption, the Latin script was not for long. In 1938, a decision by the Supreme Soviet of the Soviet Union led to the adoption of the Cyrillic script, in 1939 Azerbaijanis, Tatars, Yakuts, Khakas, in 1940 Kazakhs, Kyrgyz, Bashkirs, Karakalpaks, Uzbeks, in 1943 Tuvas, and Gagauz in 1957 passed to the Cyrillic script. The Latin script dates back to the 7th-6th centuries BC, and it is believed to have been derived from the Greek script. The Latin script has its roots in the Kipchak language, where it can be traced back to the Codecus Cumanicus at the beginning of the 14th century, used by the Turks (Shaimerdinova and others, 2014). In the diary of Hungarian Johann Schildtberger, who was captured by Amir Temur during the war in Ankara and later released, he wrote down the prayers of the Christian Tatars in the Tatar language. The writings of Europeans related to the Ottoman Empire and works on teaching the Turkic language were also written in large numbers. After the Baku Turkology Congress, the use of the Latin alphabet by people of Turkic origin became more widespread and led to the publication of numerous literary works, textbooks, newspapers, and magazines in their respective countries, resulting in a significant increase in works written in the Latin script.

The question of switching to the Latin script is a pressing issue for many Turkic peoples, particularly after Turkey gained sovereignty in 1991. Azerbaijan, Turkmenistan, and Uzbekistan have already adopted the Latin alphabet, and Kazakhstan is currently working on a gradual transition to this script.

Conclusion

Through this study we were able to organize and categorize the various types of writing systems used by steppe nomads in Eurasia, and to analyze their historical origins and cross-cultural connections to the Turkic peoples. Also it examined how these writing systems were adapted and modified based on the linguistic and phonological features of the Turkic languages. Additionally, the study considered writing as a cultural phenomenon and scrutinized the role of these writing systems in the development of Turkic writing culture. Our studies of writing included not just its function as a tool for language, but also its role as a cultural phenomenon. Despite the fact the art of writing has been part of Turkic culture since the Stone Age, the history of systematic writing can be traced back to ancient Turkic bitig writing, which is considered the original work of these peoples. Over time, the Turkic culture has developed cross-cultural connections with various societies and employed various writing systems. This was a result of the Turkic culture's inclination towards innovation and preservation of its own traditions. The Manichean script and religion as well as the Buddhist religion, found refuge among the Turks and spread worldwide. Examining the history of writing, it is evident that the Turkic people, who were known for their nomadic lifestyle, played a significant role in

preserving and advancing human cultural achievements, and spreading them to various other cultures. Their contribution to the culture of writing in various forms and at different periods of time is extensive and complex. The ancient Turkic bitig writing, works in the ancient Uyghur script, religious texts, scientific, literary, historical works written in Arabic, and legal manuscripts spread in Eurasia are examples of the rich heritage that has earned the ancient Turkic writing culture a significant place in world culture.

References

1. Amanzholov A.S. (2010). Istoriya i teoriya drevnetyurkskogo pis'ma [History and theory of ancient Turkic writing]. Almaty: Mektep. 368 p. [in Russian].
2. Gel'b I. E. (1982). Opyt izucheniya pis'ma (Osnovy grammatologii) [Experience in writing]/ per. s angl. L. S. Gorbovickoj, I. M. Dunaevskoj; red. i predisl. I. M. D'yakonova. Moskva: Raduga. 366 p. [in Russian].
3. Zholdasbekov M., Sartqozhauy Q. (2005). Orhon eskertkishterinin tolyq atlası [Complete atlas of Orkhon monuments]. Astana: Kulagin. 359 p. [in Kazakh].
4. Iogannes F. (1979). Istoriya pis'ma [History of writing]. Moskva: GRVL. 464 p. [in Russian].
5. Coulmas F. (2006). Encyclopedia of Writing Systems by Florian Coulmas. Wiley-Blackwell. 603 p.
6. Clauson G. (1986). Proiskhozhdenie tyurkskogo runicheskogo alfavita [Origin of the Turkic runic alphabet]. Zarubezhnaya tyurkologiya. P. 136-157. [in Russian].
7. Loukotka CH. (1950). Razvitie pis'ma [Development of writing]. Moskva: Inostrannoj literatury. 319 p. [in Russian].
8. Lundysheva O., Maue D., Wille K. (2021). Miscellanea in the Brāhmī Script from the Berezovsky and Krotkov Collections (IOM, RAS) with an Appendix: BΦ-4190. Written Monuments of the Orient. 7. 1(13). P. 3-70.
9. Moldabay T. (2016). Kone turik tanbalar men ideogrammalardyn semantikalyq turlenui zhane turik bitig zhazuynyn damuy [Semantic transformation of Old Turkic symbols and ideograms and development of Turkic script]. Habarshy. L.N.Gumilev atyndagy EUU-nin gylymi zhurnaly. 3. P. 114-120. [in Kazakh].
10. Moldabay T. (2021). ZHazba matinder negizinde kone uygur alipbiinin qoldanylyndagy erkeshelikter [Peculiarities in the use of the ancient Uighur alphabet based on written texts]. Turkic Studies Journal. 4. P. 44-52. [in Kazakh].
11. Turanskaya A. (2020). Newly Discovered Dunhuang Fragments of "Śatasāhasrikā Prajnāpāramitā" in the Collection of the IOM, RAS. Written Monuments of the Orient. 1(11). 88-102.
12. Hatice Ş.U. (2006). Başlangıcından günümüze türk yazı sistemleri [Turkic writing systems from the beginning to the present]. Ankara: Akçay Yay. 408 p. [in Turkish].
13. Shaimerdinova N.G., Moldabaj T. (2017). Proiskhozhdenie i funkcionirovanie runicheskoy pis'mennosti [Origin and functioning of runic writing]. Astana: Alau Group & Co. 145 p. (Kajrzhanov A., Yarygin S.A.). [in Kazakh].
14. Shaimerdinova, N.G., Moldabay T. (2014). Qypshaqtar: tarih pen til (armyan-qypshaq eskertkishteri negizinde) [Kipchaks: history and language (based on Armenian-Kipchak monuments)]. Astana: Saryarqa. 228 p. (zhəne basqalar). [in Kazakh].

Received: 17.06.25

Accepted: 19.09.25