

# **Forum for Linguistic Studies**

https://journals.bilpubgroup.com/index.php/fls

#### **ARTICLE**

# The Dynamics of Turkism Usage in the English Language: An Analysis Based on Google Ngram Data

Shaizat Khamitova <sup>1\*</sup>, Almagul Adilova <sup>1</sup> , Akmaral Bissengali <sup>2</sup> , Uldar Isabekova <sup>3</sup> , Shynarai Burkitbayeva <sup>4</sup> , Kalamkas Kalybekova <sup>5</sup>

#### **ABSTRACT**

This article explores the dynamics of Turkism usage in the English language, leveraging Google Ngram data to analyze historical and contemporary trends. It investigates the origins, dissemination, and impact of these borrowings, which arose from cultural exchanges, trade routes, and historical interactions between Turkic peoples and English-speaking communities. Turkisms are categorized into several domains: toponyms (e.g., Caspian Sea, Khiva), terms related to social structures and titles (e.g., khan, bey), culinary terms (e.g., kebab, yogurt), and others. The study examines their etymology, semantic transformations, and roles in enriching the English lexicon, reflecting the significance of linguistic and cultural connections over centuries. The research employs a multidisciplinary approach, combining statistical analysis using Google Ngram with historical and sociolinguistic perspectives. It identifies patterns in the integration of Turkisms, highlighting their persistence and adaptability within the English language. Key findings reveal how these borrowings have become deeply embedded in various aspects of English vocabulary, symbolizing cultural interaction and historical ties. Examples such as "kebab" and "yurt" illustrate the influence of Turkic traditions on global linguistic systems, particularly in areas

#### \*CORRESPONDING AUTHOR:

Shaizat Khamitova, Buketov Karaganda University, Department of Kazakh Linguistics, Karaganda, Kazakhstan; Email: shaizat@mail.ru

#### ARTICLE INFO

Received: 1 December 2024 | Revised: 24 December 2024 | Accepted: 26 December 2024 | Published Online: 2 January 2025 DOI: https://doi.org/10.30564/fls.v7i1.8030

#### CITATION

Khamitova, S., Adilova, A., Bissengali, A., et al., 2025. The Dynamics of Turkism Usage in the English Language: An Analysis Based on Google Ngram Data. Forum for Linguistic Studies. 7(1): 456–470. DOI: https://doi.org/10.30564/fls.v7i1.8030

#### COPYRIGHT

 $Copyright © 2025 \ by \ the \ author(s). \ Published \ by \ Bilingual \ Publishing \ Co. \ This \ is \ an open access \ article \ under \ the \ Creative \ Commons \ Attribution-NonCommercial \ 4.0 \ International \ (CC \ BY-NC \ 4.0) \ License \ (https://creativecommons.org/licenses/by-nc/4.0/).$ 

<sup>&</sup>lt;sup>1</sup>Buketov Karaganda University, Department of Kazakh Linguistics, Karaganda, Kazakhstan

<sup>&</sup>lt;sup>2</sup>A. Baitursynuly Institute of Linguistics, Terminology Center, Almaty, Kazakhstan

<sup>&</sup>lt;sup>3</sup>K.I. Satbayev Kazakh National Research University, Department of Kazakh and Russian Languages, Almaty, Kazakhstan

<sup>&</sup>lt;sup>4</sup>Al-Farabi Kazakh National University, Department of Turkic Studies and Theory of Language, Almaty, Kazakhstan

<sup>&</sup>lt;sup>5</sup>Karaganda Technical University Named after Abylkas Saginov, Department of Kazakh Language and Culture, Karaganda, Kazakhstan

such as cuisine, geography, and governance. The article emphasizes the importance of further studies on borrowings to better understand their contributions to the development of global languages. It concludes that Turkisms are not only markers of historical and cultural exchange but also play an ongoing role in shaping linguistic identity in the context of globalization.

Keywords: Turkisms; English Language; Borrowings; Google Ngram; Cultural Exchange; Toponyms; Cuisine; History

# 1. Introduction

Borrowings play a crucial role in the development of any language, enriching its vocabulary and expanding its expressive capabilities. While borrowings from widely studied languages such as French, Latin, and Greek have received significant attention in linguistic studies, the influence of Turkic languages on English remains underexplored. This research addresses this gap by analyzing the dynamics of Turkisms in English using Google Ngram data.

Turkisms, including words like "kebab", "yurt", and "khan", reflect the rich cultural and historical interactions between Turkic peoples and English-speaking communities. These borrowings stem from diverse factors, such as trade, migration, and cultural exchanges, and they significantly contribute to English in domains like cuisine, social structure, and geography. By investigating the integration of these terms into English, the study underscores their importance in understanding global linguistic interactions.

This article aims to provide a comprehensive analysis of the popularity and dissemination of Turkisms over time, utilizing a quantitative approach to identify patterns and trends. The findings offer insights into the linguistic and cultural bridges that have connected English with Turkic languages.

# 2. Literature Review

The study of Turkisms, lexical borrowings from Turkic languages, has garnered increasing attention in sociolinguistics due to their reflection on cultural and historical exchanges. These borrowings illuminate the dynamic relationships between Turkic and non-Turkic languages, highlighting globalization and migration processes that shape linguistic systems.

### 2.1. Cultural and Historical Context

Pioneering research by Baskakov<sup>[1]</sup> emphasized the cultural identity embedded in Turkisms such as "kebab" and

"yurt", which entered English through migration and cultural contact. Budagov<sup>[2]</sup> explored the mechanisms of adaptation, noting phonetic and morphological changes that facilitate the integration of Turkisms into recipient languages. More recent studies, such as those by Rosenthal<sup>[3]</sup>, traced historical borrowing pathways, focusing on periods of colonial expansion and cross-cultural exchanges.

# 2.2. Thematic Borrowing Categories

# 2.2.1. Culinary Terms

Smith<sup>[4]</sup> highlighted the influence of Turkish cuisine on English, analyzing borrowings like "kebab" and "baklava". Such terms serve as cultural bridges, fostering a mutual appreciation between Turkic and English-speaking societies. Similarly, Taylor<sup>[5]</sup> explored the adaptation of these culinary terms in contemporary English culture.

# 2.2.2. Geographical and Social Terms

Research by Baumer<sup>[6]</sup> and McChesney<sup>[7]</sup> examined toponyms like "Khiva" and "Caspian Sea", illustrating their historical significance in trade and exploration. Titles such as "khan" and "bey" reflect socio-political structures, as noted by Kornfilt<sup>[8]</sup> and Richards<sup>[9]</sup>.

# 2.3. Globalization and Modern Relevance

Nikiforov<sup>[10]</sup> argued that the processes of globalization amplify the spread of Turkisms, particularly in popular culture and gastronomy. Fedorova<sup>[11]</sup> analyzed their stylistic use in literature, emphasizing their exotic and expressive qualities. Jones<sup>[12]</sup> discussed the growing prevalence of Turkisms in the context of linguistic identity and globalization, reinforcing their role as markers of cultural exchange.

Despite this substantial body of work, few studies adopt quantitative methods to analyze the historical and contemporary dynamics of Turkism usage in English. This research aims to address this gap by utilizing Google Ngram data to provide a statistical and historical perspective.

# 3. Methods

#### 3.1. Materials

The study utilized Google Ngram data, which encompasses a vast corpus of English-language texts from different historical periods. The analyzed borrowings include toponyms ("Caspian Sea", "Khiva"), social structure terms ("khan", "bey"), and culinary terms ("kebab", "yogurt"). In addition, historical and sociolinguistic literature provided context to support and interpret the findings.

# 3.2. Analytical Methods

The research employed an interdisciplinary approach:

- Statistical Analysis: Google Ngram was employed to identify trends in Turkism usage across centuries. The data was processed to reveal frequency patterns and temporal changes in the usage of specific terms.
- Etymological Analysis: Borrowed words were analyzed for their origins and transformations as they adapted to English. Special attention was paid to phonetic and morphological changes that occurred during integration.
- Semantic Analysis: Changes in meaning and usage within English-speaking contexts were examined, particularly in cultural and social domains.

# 3.3. The Rationale for Using Google Ngram

Google Ngram provides a robust quantitative basis for studying long-term linguistic trends. However, its reliance on written sources introduces a potential bias, as it may not fully represent oral traditions or contemporary slang. To address these limitations, findings were cross-referenced with historical and linguistic studies to validate the data [13].

#### 3.4. Research Limitations

This analysis is limited to borrowings documented in the Google Ngram corpus, excluding oral traditions and modern neologisms not widely represented in written texts. Future research could explore complementary methods, such as corpus analysis of spoken English or media content.

# 4. Results and Discussion

Turkisms in the English language are borrowed words and expressions originating from Turkic languages. These borrowings are linked to historical contacts, trade routes, cultural exchanges, and military conflicts between Turkic peoples and English-speaking countries. They highlight how linguistic and cultural exchanges have shaped the English lexicon over centuries.

Turkisms in English can be categorized as follows:

- (1) Toponyms: Some geographical names and personal names from Turkic regions have been adopted into English. For instance, terms like "Caspian Sea" and "Khiva" refer to areas historically associated with Turkic peoples.
- (2) Terms Related to Social Structures and Titles: Due to historical wars and Turkic invasions into Europe, words such as "khagan" (a title for monarchs) and "khan" (a ruler or leader) have entered the English lexicon.
- (3) Terms Related to Dwellings: Borrowed words connected to Turkic culture are also present in English. For example, "yurt" (a portable tent used by nomadic Turkic peoples) became widely known through cultural exchanges.
- (4) Culinary Terms: Turkic cuisine has influenced the English language through terms like "kebab" and "yogurt". These words reflect centuries of cultural interactions. They also highlight how Turkic traditions continue to shape global food culture.

This classification sets the foundation for a deeper exploration of how each category reflects the impact of Turkic cultures on the English-speaking world.

# 4.1. Toponyms

Turkisms, or words borrowed into English from Turkic languages, constitute a significant part of the lexical heritage, particularly in the context of geographical names and personal names. These borrowings occurred as a result of centuries of interactions between Turkic peoples and European civilizations through trade, military campaigns, and cultural exchanges. This section examines Turkisms related to toponyms and names, along with their etymology and historical significance [14].

Toponyms, or geographical names, are one of the most enduring manifestations of Turkisms in the English language. These names often have ancient origins. They are associated with locations that were crucial for trade, cultural routes, and military conflicts between Turkic and other peoples.

- Caspian Sea: The name of the largest enclosed inland body of water in the world derives from the ancient Turkic word kaspi, meaning "nomad" or "people living by the sea". This name is believed to be associated with Turkic tribes that inhabited the region or with maritime traders who conducted commerce across the Caspian. Over centuries, the Caspian Sea served as an important hub for trade and cultural exchange between Turkic peoples and their neighbors.

The term "Caspian Sea" entered the English lexicon in the mid-16th century (**Figure 1**), coinciding with the era when European geographers and explorers began documenting the geography of the East more systematically. This was facilitated by growing trade and diplomatic ties, travel, and scholarly pursuits [15, 16]. The spread of the term can be traced to several key factors:

- (1) Trade and Diplomatic Relations: During the 16th century, European exploration of regions surrounding the Caspian Sea -such as Persia, the Ottoman Empire, and the Caucasus intensified. Trade routes and cultural exchanges made the name Caspian Sea increasingly familiar. The region served as a vital intersection of commerce, linking Europe with Central and South Asia, enhancing the prominence of the term in English discourse.
- (2) Cartography: European cartographers like Gerardus Mercator included the Caspian Sea in their maps, such as the influential 1569 map of the world. These maps, circulated widely across Europe, labeled the body of water as Caspian Sea, cementing its usage in geographical and scholarly contexts.
- (3) Travel Guides and Research: English travelers and scholars, including Richard Hakluyt in his Principal Navigations, Voyages, and Discoveries of the English Nation, documented the geography and political landscapes of the Caspian region. Their works introduced the term to a broader audience, integrating it into English literature.

By the early 17th century, the term became more frequent in English texts, reflecting the growing interest in Central Asia and its trade routes. For instance, the Moscow Company (or Muscovy Company), an English trading enter-

prise, used the Caspian Sea as a vital link for commerce with Persia. English merchants like Anthony Jenkinson described key trade hubs on the Caspian's western coast, such as Derbent and Sumqayit, which facilitated trade between Europe, Persia, and India<sup>[17]</sup>.

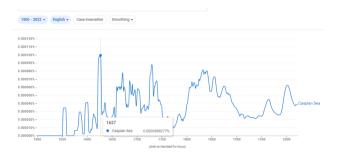


Figure 1. Caspian Sea.

Additionally, geographical studies and translated works further emphasized the Caspian region's importance. As a result, the Caspian Sea became firmly established in English by the 17th century, representing a gateway to Asia and a focal point for European exploration and trade [18].

**Khiva.** The name Khiva, referring to the city in modern-day Uzbekistan, also has Turkic origins. One theory suggests it derives from the ancient Turkic word khiva (or hiva), meaning "fortress" or "guardian", reflecting the city's strategic importance.

Khiva, a key trading and cultural hub on the Silk Road, was known for its fortified walls and role in connecting Central Asia to neighboring regions. As a center of trade, it facilitated exchanges of goods, cultures, and ideas, making it a prominent feature in historical accounts.

European travelers and merchants, especially in the 16th and 17th centuries, brought the name Khiva into English through their writings. The city's reputation as a pivotal point on the Silk Road contributed to its recognition in English texts, highlighting its enduring historical and cultural significance.

The toponym "Khiva" (the name of the city in Uzbekistan) also became known in Europe in the 18th century, particularly in the context of trade, diplomacy, and scholarly research [6, 7, 19]. During this period, Khiva was an important center on the Silk Road and was under the rule of the Khivan Khanate, which played a significant role in the political and cultural life of the region.

In the 18th century, Khiva was recognized as a major

trade and cultural hub, and its position on routes connecting the East and West made it well-known in Europe. Several factors explain why the toponym "Khiva" gained prominence in the 18th century (**Figure 2**):

- (1) Trade and Diplomatic Contacts: Khiva was part of the trade routes connecting Central Asia with Russia and Persia. European diplomats, merchants, and travelers frequently mentioned the city, as it was a key point on the Silk Road, and contact with it was important for the exchange of goods and ideas.
- (2) Russian Expansion: In the 18th century, the Russian Empire was actively expanding its influence in Central Asia, including in Khiva. These events also contributed to the spread of the city's name in European and Russian geographical literature.
- (3) Travel Guides and Scholarly Research: During this time, the works of European travelers, such as Gerard de Visscher, who described the cities of Central Asia, including Khiva, were actively published. These works helped Western readers familiarize themselves with the geography and culture of the region.

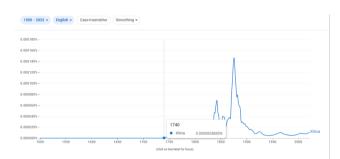


Figure 2. Khiva.

Thus, the toponym "Khiva" became more widely known in Europe in the 18th century due to trade and diplomatic contacts, as well as scholarly research. It is important to note that, at that time, the city was not as widely known as in later centuries, but its mentions in the literature of the period indicate a growing interest in Central Asia.

The frequent usage of the toponym "Khiva" in English texts at the end of the 19th century (**Figure 3**) is associated with several significant historical, political, and cultural factors, primarily political events taking place in Central Asia<sup>[20]</sup>.

(1) Annexation of the Khiva Khanate by the Russian Empire (1873)

After Russia annexed the Khiva Khanate in 1873, Khiva became an important political entity for European countries, especially Great Britain. This was part of the "Great Game," the geopolitical rivalry between the Russian Empire and the British Empire for control over Central Asia [21]. As a result, geographic and political studies of the region, including Khiva, were actively referenced in English sources.

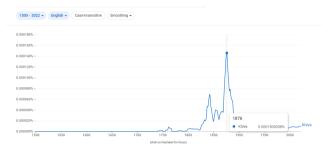


Figure 3. Khiva.

(2) Interest in Central Asia within the context of the "Great Game"

Due to Russian expansion in Central Asia, Britain actively explored and described regions within Russia's sphere of influence, including Khiva. This drew attention to cities and khanates like Khiva in diplomatic and military reports, travels, and articles of the time. Khiva, as part of the so-called "Great Game," became a symbol of the struggle for dominance in the region, which was also reflected in the increased frequency of its mention in English-language literature.

(3) Role in trade and cultural exchanges

Khiva was an important trade center on the route from Russia to Persia and India. This, in turn, attracted the attention of the British, especially merchants and researchers, to the region. Mentions of Khiva became common in travel descriptions, trade reports, and geographical works.

The integration of geographical names underscores the historical significance of Turkic regions as centers of trade and cultural exchange. This influence, however, extends beyond geography to include the social and political structures represented in English through terms of authority and leadership.

# 4.2. Terms Related to Social Structures and Titles

Words such as "khan," "khagan," and "bey" illustrate the sociopolitical influence of Turkic cultures. These terms entered the English lexicon through diplomatic, military, and historical narratives, often symbolizing leadership and authority.

**Khan:** This name and title, used to refer to rulers or leaders among Turkic and Mongolic peoples, is widely known in the English language. The word "khan" comes from the Turkic "khān", which originally meant "lord" or "ruler." In English, this term is often associated with historical figures such as Genghis Khan and Tamerlane, whose military conquests left an indelible mark on world history.

The word "khan" (from Turkic xān, meaning "lord" or "ruler") began to be used in the English language in the 16th century (**Figure 4**), primarily through contact with Turkic peoples, via trade routes and diplomatic relations. During this time, Europe actively interacted with the Ottoman Empire and other Turkic states, which led to the borrowing of words related to the political and cultural contexts of the East [22]. Additionally, "khan" may have entered English through Arabic, as Arabic was an important intermediary in the transmission of cultural and lexical borrowings between the East and the West.

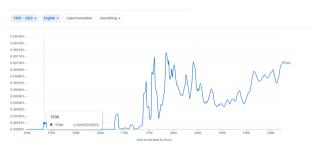


Figure 4. Khan.

In the 16th century, the British engaged with various Eastern cultures through trade, diplomacy, and travel, including contact with the Turks and Mongols. The term "khan" came to be used to refer to a ruler, particularly in the context of the Ottoman Empire and Mongolia, as references to these states became part of Europeans' geographical and cultural knowledge<sup>[23]</sup>.

**Khagan:** The title used to denote supreme rulers among some Turkic peoples, including those in Central Asia and the Mongols. "Khagan" comes from the Old Turkic word qaghan and means "great khan" or "emperor". This title also represents power and might, often associated with ruling vast territories and peoples. In English, the term retains its historical significance and appears in descriptions of ancient

rulers, such as the Khagan of Bulgaria or the Mongolian khagans.

In particular, in 1733 (**Figure 5**), the term "khagan" appeared in the context of discussions about Eastern states and their political structures, especially in connection with the Ottoman Empire and Mongol influence [24, 25].

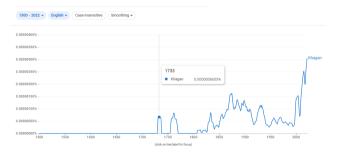


Figure 5. Khagan.

The process of borrowing and spreading such terms in Europe during the 18th century is linked to several historical factors:

- (1) Diplomatic relations and wars with the Ottoman Empire: In the 18th century, European states actively engaged with the Ottoman Empire, as well as other Turkic and Mongol states. This period marked an intensification of contacts with the East, which facilitated the borrowing of terms.
- (2) Travel accounts and scholarly works: In the 18th century, travelers, diplomats, and scholars began more actively describing the East and interacting with its cultures. Numerous descriptions of ancient and contemporary Turkic rulers, including khagans, became part of geographical and historical literature, leading to the borrowing of such words in Western languages.
- (3) The Mongol and Turkic empires: During this time, the history of Mongolia and other nomadic peoples was relevant, and the word "khagan" may have been used to denote the highest rulers of these empires.

Thus, the borrowing of the word "khagan" into European languages in the 18th century reflects the growing interest in the East and its culture, as well as the increased interaction between Europe and Asia.

**Bey:** This title was used among Turkic peoples to denote local leaders, elders, or rulers. The word "bey" came from the Turkic bey and meant "chief" or "leader." In modern English, the term has retained its historical meaning and is used to refer to important social figures in Turkic soci-

eties. The title "bey" was also part of the Ottoman imperial hierarchy, where it referred to the ruler of a small territory or a regional official. Therefore, the word "bey" became a symbol of social structure and authority in Turkic cultures.

The word "bey" also became known in the English language in the 16th century (**Figure 6**), although its usage was primarily limited to descriptions of Eastern countries and their social structures. During this time, "bey" was commonly used in Turkic and Ottoman societies to denote local rulers, including aristocracy and military leaders.

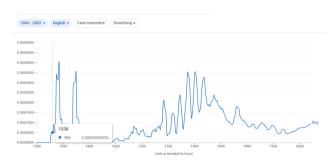


Figure 6. Bey.

The reasons for the appearance of the term "bey" in the English language in the 16th century are as follows:

- (1) Contacts with the Ottoman Empire and Turkic peoples: In the 16th century, English travelers and diplomats began to actively engage with the Ottoman Empire, which used titles like "bey" to designate governors and local rulers. This word became known in the West through diplomatic and trade relations with Turkey and other Turkic states.
- (2) Trade and culture: The Age of Exploration and the expansion of trade in the 16th century led to a growing European interest in the East. Turkic titles like "bey" were mentioned in the context of descriptions of Eastern countries and their political structures, which also contributed to the spread of this term in European languages.
- (3) Guidebooks and scholarly works: European scholars and travelers, such as Jean Chardin<sup>[26]</sup> and Gerard Mercator<sup>[15]</sup>, used terms related to Turkic and Ottoman cultures in their works. The word "bey" appeared in their descriptions, contributing to its spread in the English language.

Thus, the word "bey" became known in English in the 16th century as a result of interactions with Turkic peoples and the Ottoman Empire, as well as through maps and scholarly works of Europeans at the time.

Agha: This word also entered the English language

through Turkish and means "lord", "master", or "ruler". In the Ottoman Empire, aghas were important government or military officials. In some cases, aghas were also landowners or slave owners. The word "agha" became associated with power and high social status within the context of Ottoman society and other Turkic cultures.

The word "agha" (or "agi") has Turkic and Arabic origins, meaning "lord", "master", "chief", or "commander". In Turkish and other Turkic languages, as well as in Arabic, this word was used as a title for high-ranking individuals, military leaders, or wealthy landowners. In Arabic, it was often applied to noble or influential men.

Reasons for the appearance of "agha" in the English language in the 16th century (**Figure 7**):

- (1) Contacts with the Ottoman Empire: In the 16th century, when the Ottoman Empire was at its peak, the term "agha" was widely used to designate officers, high-ranking officials, and wealthy landowners. English diplomats and traders, interacting with the Ottoman Empire, borrowed this word to refer to local rulers or important figures. The title "agha" was used in the context of describing the social and political structure of the Ottoman Empire.
- (2) Trade and diplomacy: The Ottoman Empire had active relations with European countries, including England. The trade and diplomatic ties between these states contributed to the borrowing of Ottoman terms, including "agha." Words like "agha" were used to denote important state positions, reflecting the European interest in the Ottoman administrative system.
- (3) Cartography and literature: European travelers, such as Jean Shardin, and scholars describing the Ottoman Empire and other Turkic states, used the term "agha." These descriptions helped spread the word within European scholarly and cultural circles.

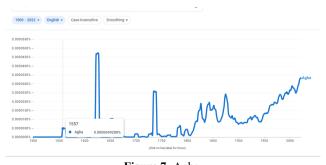


Figure 7. Agha.

Example of the use of "agha" in English:

In the 16th–17th centuries, the word "agha" appeared in written sources, such as travel reports, descriptions of diplomatic meetings, and trade agreements with the Ottoman Empire. This word might have been used to denote local chiefs or high-ranking individuals in regions where Ottoman influence was significant <sup>[25, 26]</sup>.

The significant influence of Turkic peoples on England and Europe occurred through trade, cultural exchanges, and military contacts. One of the most prominent examples is the Silk Road, which connected East and West. Many Turkic peoples played a key role in supporting and protecting these trade routes, and many of these countries became sources of borrowing, including toponyms and names.

For example, Turkic khanates, such as the Golden Horde, and the Ottoman Empire had a considerable impact on trade and politics in Europe, and these contacts were reflected in borrowings. Ottoman Turks, for instance, introduced several lexical elements into the English language, such as words related to political titles and administrative terms.

Turkic loanwords in English, especially in the context of toponyms and names, represent an important part of the lexical heritage that arose from long-standing contacts between Turkic peoples and English-speaking cultures. These borrowings not only illustrate the influence of Turkic peoples on the world language but also reflect significant historical events connected with cultural, political, and trade links between East and West.

While these terms highlight the influence of Turkic governance, Turkisms also reflect more practical aspects of life, particularly in the context of traditional housing.

#### 4.3. Terms Related to Housing

Turkic loanwords in English related to culture and daily life represent a significant element of mutual influence between Turkic peoples and English-speaking countries. These borrowings are connected to various aspects of the life of Turkic peoples. As a result of centuries of contacts such as trade, military campaigns, and cultural exchange, many terms entered the English language that remain relevant today.

**Yurt:** This traditional dwelling of the nomadic peoples of Central Asia, particularly the Kazakhs, Kyrgyz, Mon-

gols, and other Turkic peoples, is known as a "yurt" in English. The word "yurt" originates from the Old Turkic "jurt," meaning "dwelling" or "home." A yurt is typically a circular structure with a wooden frame covered by fabric or felt. In English, the word "yurt" has become synonymous with the traditional nomadic dwelling and symbolizes the nomadic culture of these peoples. The yurt is also associated with practical aspects of nomadic life, such as mobility and convenience.

The word "yurt" was already known in European languages by the end of the 16th century (**Figure 8**), especially in the context of describing the nomadic peoples of Central Asia, such as the Mongols, Kazakhs, Kyrgyz, and other Turkic peoples. A yurt was a traditional dwelling for these peoples - a round tent-like structure with a wooden frame covered with felt or leather, used for the nomadic lifestyle. Reasons for the appearance of "yurt" in European languages in the 16th century:

- (1) Diplomatic and trade relations with the East: By the end of the 16th century, Russia and other European states, such as the Ottoman Empire and Persia, were actively engaging with Central Asia. In this context, the word "yurt" likely entered European languages through diplomatic and trade missions, as well as through the travels of European explorers and merchants to Turkic and Mongol lands. Europeans, including Russian and Polish travelers, described the daily life and culture of nomadic peoples, mentioning their dwellings.
- (2) Travel guides and research: During this time, travelers such as Gerard Mercator and Adam Olearius became more interested in the geography and culture of the East, including the nomadic peoples. Their research included descriptions of yurts as characteristic elements of the daily life of nomadic tribes. In their works, including maps, they might have mentioned the word "yurt" as part of the traditional dwelling of Central Asian peoples.
- (3) The Ottoman Empire and Mongolia: Interactions with the Ottoman Empire, as well as with Mongol and Turkic states, also contributed to the spread of the term "yurt." In the context of describing military conflicts, trade, and diplomatic relations with these regions, the word "yurt" may have been borrowed to refer to the traditional dwelling of nomadic peoples.

By the 16th century, the word "yurt" was used in de-

scriptions of the daily life of Central Asian nomads. It appeared in European sources, both in travel guides and geographical works. For example, in Adam Olearius' work <sup>[18]</sup>, which described his travels to Asia, there are mentions of yurts as dwellings typical for Mongols and Kazakhs.

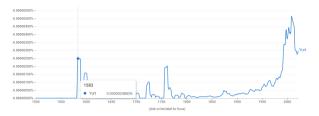


Figure 8. Yurt.

Thus, borrowings related to housing emphasize the adaptability and ingenuity of Turkic cultures. The term "yurt," describing a portable dwelling used by nomadic peoples of Central Asia, entered the English language in the 16th century through travel accounts. It reflects the practical lifestyle of nomadic Turkic peoples, highlighting their resourcefulness and cultural identity.

As housing-related terms reflect the practical and cultural lives of Turkic peoples, culinary borrowings further demonstrate their enduring influence on global traditions.

# 4.4. Culinary Terms

Culinary terms borrowed into English represent an important part of the culinary lexicon, particularly in the context of Eastern cuisine, where Turkic peoples have had a significant influence. These borrowings are tied to historical contacts, trade routes, and cultural exchanges. The Ottoman Empire and other Turkic states, as well as the East in general, played a key role in spreading culinary terms. This section explores several key culinary terms that entered the English language due to Turkic influence.

Culinary Terms Related to Dishes

Shashlik: The word "shashlik" entered the English language through Russian, but it has Turkic origins. In Turkic languages, "shashlyk" or "shishlik" refers to meat cut into pieces and grilled on a skewer. This dish was widely popular among Turkic peoples and later became common in the Russian Empire and other parts of Eastern Europe. The original Turkic term "şiş" (pronounced "shish") meant "spit" or "skewer," which became an essential part of preparing shashlik. In English, "shashlik" refers to a traditional meat

dish made by threading meat onto a skewer and grilling it over an open flame<sup>[27]</sup>.

The word "shashlik" began to be used in the English-speaking world in the late 19th and early 20th centuries, but its widespread popularity became noticeable in the 1950s (**Figure 9**). This can be attributed to several cultural and historical factors, including the influence of Caucasian cuisine, migration, and changing social tastes.

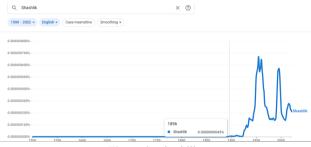


Figure 9. Shashlik

Reasons for the appearance of "shashlik" in the late 19th - early 20th centuries in English-speaking countries:

- (1) Tourism and cultural exchange: By the late 19th century, travelers and explorers, especially those visiting the Caucasus and Central Asia, began to describe the culinary traditions of these regions, including the preparation of meat on a skewer—shashlik. The English language borrowed the word "shashlik" as a result of cultural exchanges and growing interest in the East, especially in the context of literature and gastronomic guides <sup>[28]</sup>.
- (2) Migration: In the late 19th and early 20th centuries, immigrants from the Caucasus, Central Asia, and Turkey began to arrive in English-speaking countries, particularly in the UK and the US. As a result, dishes such as shashlik began appearing in restaurants and cafes catering to these diasporas. Shashlik became known as part of the traditional cuisine of these peoples and gradually came to be seen as an exotic and delicious dish.

Why "shashlik" became popular in the 1950s in English-speaking countries:

(1) Post-war popularization of Caucasian and Middle Eastern cuisines: After World War II, there was a rise in interest in international cuisines in Western countries. The culinary traditions of the East, including Caucasian, Arab, and Turkish cuisines, became popular among Western gastronomes and restaurant critics. This period also saw an increase in the number of restaurants and cafes offering ex-

otic dishes like shashlik.

- (2) Globalization and changing tastes: The 1950s and 1960s marked the beginning of active globalization, which was associated with improved transportation accessibility and cultural exchange. This period also saw the rise of culinary shows, restaurants, and books on world cuisine. In such conditions, shashlik, as a relatively simple and tasty dish, gained widespread popularity in English-speaking countries.
- (3) The search for "exotic" culture: In the mid-20th century, English-speaking countries became more open to exotic cuisines. Dishes associated with exotic cultures, particularly those from the Middle East and the Caucasus, began appearing in restaurants. Shashlik became popular due to its accessibility, simplicity in preparation, and association with hot summer days, picnics, and open fires.

**Kebab.** Kebab is one of the most well-known culinary terms that entered the English language from Turkic languages. The Turkic word "kebap" refers to various types of roasted meat, which can be cooked on a grill or a skewer. The term became popular during the Ottoman Empire, where kebab was an important part of the cuisine.

In English, the term "kebab" encompasses a variety of meat dishes, including types like "doner kebab" and "shish kebab." Studies such as those by Gibb and Kramers <sup>[29]</sup> show that kebab gained international popularity through Turkish and Middle Eastern cuisines.

The word "kebab" began to be widely used in English-speaking countries in the mid-17th century, but it became especially active and frequent in the 2010s (**Figure 10**).

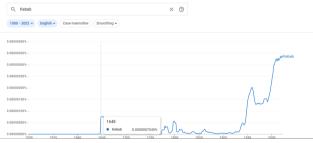


Figure 10. Kebab.

Reasons for the emergence of the word "kebab" in English-speaking countries in the mid-17th century:

(1) Influence of the Ottoman Empire: In the 16th and 17th centuries, the Ottoman Empire, which spanned from the Middle East to the Balkans, had active interactions with European countries through trade, diplomacy, and military

contacts. Culinary traditions from the Ottoman Empire, including the preparation of meat on a spit (kebab), became known to Europeans. For example, the word "kebab" is mentioned in works about the East, including books and travel guides written by European diplomats and travelers [30].

(2) Popularization of Eastern cuisine: In the 17th century, Europe began to show more interest in Eastern culinary traditions, particularly after contact with the Ottoman Empire. Restaurants offering dishes borrowed from Turkish and Arab cuisines began to appear in countries such as Britain and France, which contributed to the introduction of dishes like kebab.

Why kebab became popular in the 2010s:

- (1) Globalization and migration: Since the beginning of the 21st century, globalization and mass migration have contributed to the spread of Eastern culinary traditions around the world, including kebab. People from countries in the Middle East, Central Asia, and Turkey began to migrate to Europe and North America, opening restaurants serving traditional dishes such as kebab. This led to the widespread dissemination and popularization of kebab in English-speaking countries.
- (2) Growth of interest in street food and fast food: In recent decades, especially in the late 20th and early 21st centuries, street food and fast food have gained popularity. Kebab, as one of the most convenient and delicious street foods, quickly became in demand in European and American cities. The rise in popularity of shawarma and doner (spit-roasted kebabs) among youth further increased kebab's popularity.
- (3) Media and cultural trends: In the 2010s, kebab became part of culinary trends in popular media, including television, social media, and cooking shows. Restaurants and food trucks specializing in kebabs became popular in cities around the world. As a result, kebab became not only a traditional dish but also a symbol of modern street food.
- (4) Recipes and adaptations: In response to the growing popularity of kebab, various adaptations of the dish emerged, including vegetarian versions and variations with different meats, which contributed to expanding its audience and the more frequent use of the term.

Thus, kebab became known in English-speaking countries in the mid-17th century, and its active and frequent use in the 2010s is linked to globalization, migration, the growth

of street food popularity, and mass cultural trends.

**Beshbarmak.** Beshbarmak, one of the most iconic and popular dishes of Kazakhstan, has an interesting origin and history. This traditional recipe, consisting of meat, noodles, and broth, bears a name that reflects its cultural significance and the way the dish is consumed. The article traces the etymology of the word "beshbarmak," its cultural significance, and the dish's journey into English-speaking countries. The word "beshbarmak" consists of two parts: "besh" (five) and "barmak" (finger). This name is linked to the tradition of eating the dish with one's hands, a practice that was characteristic of the nomadic peoples of Central Asia, including the Kazakhs. This gives the dish not only gastronomic but also cultural value<sup>[31]</sup>. Beshbarmak is not only a common dish but also a symbol of hospitality and festive food in Kazakhstan. It is traditionally served at weddings, celebrations, and other significant events. The recipe is based on meat (usually horse, lamb, or beef), noodles, and broth, making it hearty and delicious. Beshbarmak also has various regional and familial variations.

Reasons for the use of the term "beshbarmak" in the 19th century (**Figure 11**):

- (1) Nomadic lifestyle and dissemination through trade routes: In the 19th century, Kazakh and other nomadic peoples of Central Asia actively exchanged goods and cultural traditions. Beshbarmak, as one of the staple dishes, was often prepared in large quantities for nomadic tribes, and it was during this period that it began to spread among different peoples of the region. Through trade and cultural exchanges, the term "beshbarmak" and its recipe began to be known outside of Kazakhstan and other Central Asian countries.
- (2) Social significance of the dish: Traditionally, beshbarmak was considered a dish for welcoming guests, and it became a symbol of hospitality. In the 19th century, this dish was frequently mentioned in the context of the cultural and social traditions of the Kazakh people, and its popularity grew among neighboring peoples.
- (3) Spread through letters and travels: In the 19th century, travelers, including Russian researchers and diplomats, began to describe the everyday life and cuisine of Central Asian peoples. These descriptions in literary and scientific sources contributed to the dissemination of the term "beshbarmak" in other parts of the world.

Beshbarmak became popular in the 1950s:

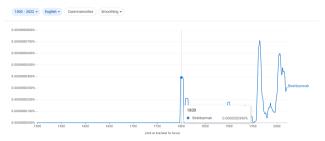


Figure 11. Beshbarmak.

- (1) Mass integration of Kazakhstan into the Soviet Union: After World War II, in the 1950s, when Kazakhstan became part of the Soviet Union, traditional Kazakh dishes, including beshbarmak, became more widely known. This occurred through gastronomic exhibitions, cookbooks, and restaurants. Within the USSR, such dishes became popular as cultural and gastronomic exchanges between the republics became part of the ideology of Soviet integration.
- (2) Restaurants and street cuisine: In the 1950s, there was an increasing interest in exotic and national cuisines of the peoples of the USSR. Beshbarmak became one of the popular dishes in restaurants and cafes specializing in Central Asian cuisine, leading to its broader recognition and increased popularity among Soviet citizens.
- (3) Mass migration and spread of Kazakh culture: During this time, there was active migration of Kazakhs and other Central Asian peoples to different parts of the Soviet Union, and they brought with them their culinary traditions, including beshbarmak. This facilitated the wider spread of the dish across the USSR.

Why beshbarmak became popular in the 2000s:

- (1). Globalization and interest in national cuisine: In the 2000s, with the intensification of globalization and the growing interest in national cuisines, beshbarmak became popular not only in Kazakhstan but also beyond its borders. With the increase in the number of Kazakh diasporas in various countries, traditional dishes began to gain popularity in other countries, including Russia, European countries, and the USA.
- (2) Preservation of traditions through media: In the 2000s, with the rise of popular cooking shows and social media, beshbarmak gained additional popularity. Television programs, culinary blogs, and videos about national dishes began to introduce viewers to this traditional Kazakh dish.
- (3) Preservation of cultural identity: In the 2000s, Kazakhstan experienced an increased interest in its national cul-

ture and traditions, including through gastronomy. Beshbarmak became a symbol of Kazakh hospitality and cultural identity, and its popularization became part of a broader movement to preserve and promote traditions.

Thus, beshbarmak began to be used in the 19th century, its popularity significantly increased in the 1950s within the context of the integration of Kazakh cuisine into Soviet gastronomic tradition, and it further strengthened in the 2000s due to globalization and cultural awareness.

**Yogurt.** The word "yogurt" has Turkic origins and is widely spread in English-speaking countries. In Turkic languages, the word yoğurt refers to a fermented dairy product. This product has been known since ancient times, and its production is part of Turkic culinary traditions. According to ethnographic studies <sup>[25]</sup>, Turkic peoples used yogurt not only as food but also as a medicinal product. The word "yogurt" entered the English language through Turkish and Arabic contexts, becoming one of the most popular products in Western cuisine.

Although yogurt itself is likely much older, its mentions can be traced back to the 10th century. Historical sources describe its consumption among Turkic and Uighur peoples. Yogurt was often considered sacred or beneficial food [32]. In these early references, yogurt was made using milk and beneficial bacteria, such as Lactobacillus.

In the 16th century, yogurt began to attract attention in Europe (**Figure 12**). A famous case involves Ottoman Sultan Suleiman the Magnificent, who sent yogurt to French King Francis I, who was suffering from a serious illness. According to legend, the king's health improved significantly after consuming yogurt, which was referred to as "the milk of eternal life" [33].

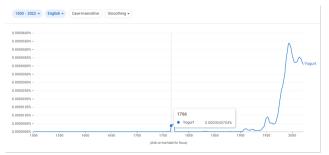


Figure 12. Yogurt.

The word "yogurt" (from Turkish yoğurt) indeed began to be used in English in the mid-18th century, but its widespread popularity and dissemination began much later,

in the 1930s–50s, with particular prominence in the 1990s. Let us explore the reasons for these changes in more detail.

Use of the term "yogurt" in the English language from the 18th century:

- (1) Early mentions: In the 18th century, when Europeans began to study Eastern culinary traditions, the word "yogurt" started to be mentioned in the context of Turkish and Balkan cuisines, where this product had been known for a long time. At that time, yogurt was not widely known outside of Turkey, the Balkans, and some other Eastern European countries, but its use in scientific texts and travel accounts attracted attention.
- (2) Translation and adaptation: During this time, yogurt was often mentioned in travel books and studies as an exotic product consumed in Turkey and the Balkans. Initially, it was used in limited circles, known only to those who visited these regions or were in contact with Ottoman cuisine.

Popularity of yogurt in the 1930s-50s:

- (1) Growing interest in healthy eating: In the 1930s–50s, there was an increasing interest in healthy eating and new products in English-speaking countries. Yogurt, with its probiotic properties and potential digestive health benefits, became popular among people striving for a health-ier lifestyle. During this period, the first mass marketing campaigns for yogurt emerged, such as those by brands like Dannon.
- (2) Mass production: During and after World War II, the mass production and commercialization of yogurt began. Manufacturers started producing yogurt in large volumes, which helped spread its availability and consumption across various countries, including the United States and the United Kingdom.
- (3) Research and medical discoveries: During this time, research was also published confirming the health benefits of yogurt, particularly for gut health. This increased interest in the product, and it began to be used not only as an exotic dish but also as a health food.

Mass popularity of yogurt in the 1990s:

(1) Focus on healthy living and diets: In the 1990s, with the rise in interest in fitness and healthy living, yogurt became an essential part of dietary nutrition. It became a key ingredient in many diet programs aimed at weight control and improving digestion. Low-fat yogurt and those with added probiotics became particularly popular.

- (2) Expansion of variety: In the 1990s, yogurt manufacturers began to produce a variety of yogurt types, including flavored, low-calorie, and lactose-free versions, significantly increasing the consumption of the product. This period also saw a growth in interest in exotic ingredients and foods from other cultures, further promoting yogurt's spread.
- (3) Marketing campaigns and media: In the 1990s, yogurt was actively advertised in television campaigns and through other media, which greatly influenced its popularity among a wide audience. During this time, there was also increased interest in healthy eating within mass culture, and yogurt became associated with a modern, healthy lifestyle.

Reasons for the increased popularity:

- Probiotic properties: In recent decades, yogurt has gained widespread recognition for its probiotic benefits, making it an important product for maintaining gut health. Since the 1990s, research on the benefits of probiotics has become more common.
- Increased variety of products: Manufacturers began producing various types of yogurt from fat-free and sugarfree to those with added ingredients, which helped increase its consumption.
- Globalization and accessibility: With the globalization of the food market, yogurt became available in different countries, including the USA, Europe, and Asia, where its consumption significantly grew.

The word "yogurt" began to be used in the English language in the 18th century but became popular in the 1930s–50s with the rise of interest in healthy eating and mass production. Its widespread distribution occurred particularly in the 1990s, when yogurt became associated with a modern and healthy lifestyle.

Thus, culinary borrowings, such as "kebab", yogurt", and "shashlik", demonstrate how Turkic cuisine has become a part of global culinary traditions. For example:

- Kebab: A term referring to roasted meat, which gained popularity through the Ottoman Empire and is now synonymous with modern street food.
- Yogurt: Derived from the Turkish "yoğurt", this term reflects ancient food preservation techniques and has become a staple of healthy diets worldwide.

Through culinary terms, Turkisms highlight the depth of cultural exchanges that continue to influence English and other global languages. Turkisms in the English language reflect historical and cultural exchanges that arose through trade, migration, and diplomatic contact. These borrowings enriched the English lexicon across diverse domains, from geography and governance to housing and cuisine. Their continued relevance underscores their importance as markers of linguistic and cultural integration in a globalized world.

# 5. Conclusions

The findings of this study shed light on the significant role of Turkisms as markers of cultural exchange and historical interaction between Turkic peoples and English-speaking communities. By analyzing their origins, semantic evolution, and patterns of integration, this research provides a framework for understanding how linguistic borrowings reflect broader sociocultural dynamics.

# 5.1. Inspiration for Further Research

The study opens avenues for future investigations in sociolinguistics and cultural studies. Researchers could delve deeper into the sociocultural factors that facilitate the adoption of specific borrowings, such as the influence of media, migration, and international trade. Additionally, comparative studies could explore the integration of Turkisms in other languages, providing a more global perspective on linguistic exchange. This approach could uncover parallels and distinctions in how different societies adapt and incorporate foreign lexicons.

# 5.2. Practical Implications

The findings have practical relevance for modern linguistics, particularly in understanding the impact of globalization on language. Turkisms, as examples of linguistic adaptation, illustrate how global interactions shape linguistic identity and cultural expression. This knowledge can inform language education, lexicography, and cross-cultural communication strategies. Furthermore, the integration of these borrowings into English demonstrates the evolving nature of linguistic identity, highlighting how languages continuously adapt to cultural and societal changes.

In conclusion, Turkisms offer a rich field for exploring the interplay between language, culture, and history, emphasizing their importance not only as historical markers but also as contributors to the ongoing development of global linguistic systems.

# **Author Contributions**

Conceptualization, S.K. and A.A.; methodology, S.K.; software, A.B., U.I. and S.B.; validation, S.K., A.A.; formal analysis, S.K.; investigation, S.K.; resources, S.K.; data curation, S.K., A.A., A.B., U.I.; writing-original draft preparation, S.K., A.A., S.B.; writing—review and editing, S.K. and A.A.; visualization, K.K.; supervision, S.K.; project administration, S.K. and A.A.; funding acquisition, S.K. All authors have read and agreed to the published version of the manuscript.

# **Funding**

This work received no external funding,

# **Institutional Review Board Statement**

Not applicable.

# **Informed Consent Statement**

Not applicable.

# **Data Availability Statement**

Access to the research materials can be accessed through the following link: https://books.google.com/ngrams/.

# Acknowledgments

The authors would like to express their special gratitude to the reviewers for their honest feedback to improve the article.

# **Conflict of Interest**

The authors stated that there are no conflicts of interest.

# References

[1] Baskakov, N.A., 1989. Turkisms in the Languages of [20] Bartold, V., 1898. Istoriya tyurkskikh gosudarstv v Europe. Nauka: Moscow, Russia. pp. 17–31.

- [2] Budagov, A.I., 1976. Borrowings in the Russian Language. Leningrad State University Press: Moscow, Russia. pp. 45-55.
- [3] Rosenthal, J.S., 2003. Turkic Borrowings in English: A Historical Perspective. Nauka: Moscow, Russia. pp. 102-104.
- [4] Smith, A.K., 2010. The Influence of Turkish on English Cuisine. Culinary Studies. 12(2), 34-50.
- [5] Taylor, K.M., 2018. Turkic Influences on Modern English. Cultural Studies Review. 22(1), 14-29.
- [6] Baumer, C., 2014. The History of Central Asia. I.B. Tauris: London, UK. pp. 47-55.
- [7] McChesney, R.D., 1991. Central Asia: Foundations of the History of the Mongols. Princeton University Press: Princeton, NJ. pp. 12–18.
- [8] Kornfilt, J., 1997. Turkish: A Linguistic Introduction. Routledge: London, UK. pp. 54-59.
- [9] Richards, M., 2006. The Oxford History of the English Language. Oxford University Press: Oxford, UK. pp. 6-14.
- [10] Nikiforov, M.A., 2019. Kul'tura i yazyk v usloviyakh globalizatsii [Culture and Language in the Context of Globalization]. Nauka: Moscow, Russia. pp. 18–27.
- [11] Fedorova, A.S., 2020. Tyurkizmy v khudozhestvennoy literature: stilisticheskiye aspekty [Turkisms in Fiction: Stylistic Aspects]. Literary Review. 45(1), 34–48.
- [12] Jones, L.R., 2021. Cultural Exchanges and Lexical Borrowing: The Case of Turkisms. Journal of Global Linguistics. 7(2), 89–103.
- [13] Agabekova, Z., Amirbekova, A., Kalybekova, K., et al., 2024. Activation of «COVID» Words in the Kazakh Language: Statistical Analysis. Forum for Linguistic Studies. 6(4), 194-202. DOI: https://doi.org/10.30564/fls.v6i4.6753
- [14] Khassenov, B., Adilova, A., Rapisheva, Z., 2022. Colour Symbolism in Turkic Culture: A New Look in the Reconstruction of Colour Designation. Pertanika Journal of Social Sciences & Humanities. 30(4), 1753-1766.
- [15] Mercator, G., 1569. Atlas. Gerardus Mercator Publisher: Antwerp, Belgium. pp. 64–70.
- [16] Hakluyt, R., 1589. The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation. George Bishop and Ralph Newberie: London, England. pp. 115-119.
- [17] Stafford, R., 2015. Trade Routes and the Muscovy Company's Role in Central Asia. Clarendon Press: Oxford, England. pp. 9–15.
- [18] Olearius, A., 1669. Voyage to Persia. Peter Müller Publisher: Hamburg, Germany. pp. 66–74.
- [19] Gibb, H., 1949. The Ottoman Empire and Its Successors. Oxford University Press: Oxford, England. pp. 35-54.
- Sredney Azii [The History of Turkic States in Central

- Asia]. Imperial Academy of Sciences: Saint Petersburg, Russia. pp. 305–312.
- [21] Baltabayeva, A., Bakenova, A., Amirbekova, A., et al., 2024. Semantic Features of the Word Qonyr (Brown): Conceptual Analysis of Two Separate Works. Theory & Practice in Language Studies (TPLS). 14(11), 3347–3354.
- [22] Richards, M., 2006. The Oxford History of the English Language. Oxford University Press: Oxford, England. pp. 14–26.
- [23] Harris, R., 2002. The Linguistics of History. Cambridge University Press: Cambridge, England. pp. 47–57.
- [24] Cowan, C.D., 1973. The Ottoman Empire: A Short History. Macmillan: London, UK. pp. 55–63.
- [25] Gibb, H.A.R., 1957. Islamic Society and the West. Oxford University Press: Oxford, UK. pp. 71–87.
- [26] Chardin, J., 1686. The Travels of Sir John Chardin. Humphrey and Bonwicke: London, UK. pp. 401–457.
- [27] Khodarkovsky, M., 2004. Russia's Steppe Frontier:

- The Making of a Colonial Empire, 1500–1800. Indiana University Press: Bloomington, IN. pp. 300–309.
- [28] Miklashevsky, Y., 2000. Caucasian Cuisine: A History of Cooking in the Caucasus. Nauka: Moscow, Russia. pp. 17–31.
- [29] Gibb, H.A.R., Kramers, J.H., 1970. Shorter Encyclopedia of Islam. Brill: Leiden, Netherlands. pp. 43–67.
- [30] Baudelaire, C., 2010. Street Food Culture in the Modern World. Culinary Press: Paris, France. pp. 97–112.
- [31] Pevzner, M., 1969. Kulinarniye traditsii Tsentral'noy Azii [Culinary Traditions of Central Asia]. Nauka: Moscow, Russia. pp. 57–65.
- [32] Babadzhanova, L., 2001. Kazakhskaya kukhnya: traditsionnyye blyuda i ikh znacheniye [Kazakh Cuisine: Traditional Dishes and Their Significance]. Almaty Publishing House: Almaty, Kazakhstan. pp. 44–57.
- [33] Ekinci, E.B., 2015. The Historic Journey of Yogurt: From Turkic Peoples to the World. Daily Sabah: Istanbul, Turkey. pp. 15–27.