

# The Turkic Word *qımız* “Fermented Mare’s Milk”: Early Historical Textual Evidence and Origin

Türkçe *kımız* Sözcüğünün Tarihî Metinlerde Tanıkları  
ve Kökeni

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**Abstract:** This paper presents textual evidence for the Turkic word *qımız* "fermented mare's milk" in a broad historical and cultural context. It combines philological and linguistic analysis with cultural and historical examination, as well as supporting archaeological evidence. Original primary sources in Byzantine Greek, Turkic, Sogdian, Chinese, Arabic, Persian, and Mongolian, ranging from the 6th–13th centuries, have been analyzed and re-evaluated. The primary meaning "sour, acidic" for *qımız* is attested by Maḥmūd al-Kāšġarī (1077), and in various modern Turkic languages. I argue that the direct etymon of Turkic *qımız* is Middle Persian *hāmīz* "a pickled meat dish," with the basic meaning "sour, fermented." Furthermore, I propose that a Semitic word of the Proto-Semitic root \**hms* "to sour, ferment" (most probably Biblical Hebrew *hāmēs*, modern Hebrew *chametz* "leavened [food; forbidden on Passover]") is the ultimate origin of certain names of fermented, sour food and drink items in Semitic, Iranian, Armenian, and Turkic languages. Thus, I propose to call Hebrew *hāmēs* a sort of "Wanderwort," whose spread—via Syriac and other languages—was supported by the religious significance of the Hebrew term.

**Keywords:** Ancient equestrian nomadic culture, etymology, Old Turkic *qımız*, Mongolic *esüg* and *airag*, fermented dairy products, alcoholic beverages, Middle Persian *hāmīz*, Hebrew *hāmēs/chametz*.

**Özet:** Bu çalışma, Türkçe *kımız* "mayalanmış kısırak sütü" sözcüğünün metinsel tanıklarının geniş kapsamlı tarih ve kültürel bağlamı içinde ortaya koymaktadır. Bunu yaparken filolojik ve dilbilimsel analiz, tarihî ve kültürel incelemenin yanı sıra arkeolojik buluntular da kullanılmıştır. Altı ila on üçüncü yüzyıllara ait Bizans Yunancası, Türkçe, Sogdca, Çince, Arapça, Farsça ve Moğolca gibi dillerdeki birincil kaynaklar yeniden değerlendirilmiştir. Maḥmūd el-Kāšġarī'de (1077) ve bazı çağdaş Türk dillerinde *kımız* sözcüğünün esas anlamının "ekşi" olduğuna dair tanıklar bulunmaktadır. Çalışmada Türkçe *kımız* sözcüğünün doğrudan kaynak kelimesinin (etimon), esas anlamı "ekşi, mayalanmış" olan Orta Farsça *hāmīz* "et turşusu" kelimesi olduğunu öneriyorum. Ayrıca, Sami, İran, Ermeni ve Türk dillerinde bulunan ekşimiş ya da mayalanmış bazı yiyecek ve içecek adlarının nihai kaynağının, Proto-Sami \**hms* "ekşimek, mayalanmak" kökünden türemiş Samice bir kelime (büyük ihtimalle Eski Ahit İbranicesi *hāmēs*, modern İbranice *chametz* "[Pesah sırasında yasak olan] mayalanmış [gıdalar]") olduğunu iddia ediyorum. Bundan dolayı, İbranice *hāmēs*'in bir çeşit "Wanderwort" olarak kabul edilebileceğini ileri sürüyorum. İbranice terimin dinî önemi—Süryanice ve başka diller üzerinden—yayılmasında rol oynamış olmalıdır.

**Anahtar Kelimeler:** Eski atlı göçebe kültürü, etimoloji, Eski Türkçe *kımız*, Moğolca *esüg* ve *airag*, mayalanmış süt ürünleri, alkollü içecekler, Orta Farsça *hāmīz*, İbranice *hāmēs/chametz*.

In his original, if not widely acknowledged paper “What Did the Old Turks Call Fermented Mares’ Milk?” Marcel Erdal (2009) has cautiously proposed to (indirectly) link the Turkic word *qumuz* to Arabic *ḥāmīd* “sour,” with the potential Persian intermediary *qamīz*.<sup>1</sup> In this paper I want to elaborate and revise Erdal’s proposal and Sevan Nişanyan’s version thereof.<sup>2</sup> I will highlight early textual sources (6th to 13th centuries), in Turkic and other languages, which could be expected or are generally assumed to contain the word *qumuz*, but do not. After ruling out genuine Turkic etymologies that have been proposed, I will scrutinize Maḥmūd al-Kāšyārī’s crucial 11th century Karakhanid Turkic data on *qumuz* “kumis; sour” (and *qor* “ferment or starter culture for making *qumuz* and yogurt”) with their Arabic translations, and foreground the meaning “sour, acidic” for *qumuz*. I will complicate the overall picture by adding the medieval food terms *āmiṣ*/*āmīṣ* (i.e., Kāšyārī’s Arabic gloss for Turkic *qumuz*) and Middle Persian *ḥāmīz* into the equation. I argue that the immediate etymon of Turkic *qumuz* is Middle Persian *ḥāmīz*; and that the basic meaning of the food terms *qumuz*, *āmiṣ*/*āmīṣ*, *ḥāmīz*, et al. is “sour, acidic, fermented” and they all ultimately go back to a distant Semitic word from the Proto Semitic root \**ḥmṣ* “sour, acidic” (most probably, Biblical Hebrew *ḥāmēṣ* via a Syriac intermediary). Thus, I suggest that Biblical Hebrew *ḥāmēṣ* “leavened, soured, fermented (food)” can be called a “Wanderwort.”

In academic and popular writings on the history of the Turks, *qumuz* (English kumis or koumiss),<sup>3</sup> a sour tasting, mildly alcoholic drink from

1 Marcel Erdal, “What Did the Old Turks Call Fermented Mares’ Milk?” in *Tujue yu wen xue yan jiu: Geng Shimin jiao shou ba shi hua dan ji nian wen ji* = *Studies in Turkic Philology: Festschrift in Honour of the 80th Birthday of Professor Geng Shimin*, ed. Zhang Dingjing and Abdurishid Yakup (Beijing: China Minzu University Press, 2009), 293–297. — Many thanks to Darragh Winkelman for proofreading and valuable comments.

2 Sevan Nişanyan, *Nişanyan Sözlük: Çağdaş Türkçenin Etimolojisi* (8th revised edition, 2020), Online version, “kımız.”

3 All forms with the vowel sequence *kumis* in various European languages ultimately go back to Russian *kumys* (← Kipchak Turkic *qumuz*). Neither historical nor modern Turkic languages display the form \**qumuz* instead of *qumuz*. Old Russian dictionaries list the alleged early Turkic loan “КОУМЫЗЪ *kumyz*”, “КОМЪЗЪ *komuz*”, “КЪМЪЗЪ *kumuz*” from the epic poem “The Tale of Igor’s Campaign” which is generally believed to date from the late 12th century (R. I. Avanesov, *Slovar’ Drevnerusskogo Iazyka (XIXIV Vv.)* (Moskva: “Russkii iazyk,” 1991), 4:330; I. I.

fermented mare's milk,<sup>4</sup> is often called a "national beverage" of the Turks, specifically the Central Asian Turks. It is considered a staple food of ancient Turkic equestrian nomadic culture. In fact, the preparation and consumption of (some version of) fermented mare's milk is a shared characteristic of past and present (semi-)nomadic pastoralist peoples of the Eurasian steppes, a vast stretch of grassland extending from Eastern Europe over the top of Central Asia into Mongolia and China. Today, consumption of kumis is most popular among Central Asian Turkic speakers (Kazakh, Kyrgyz, et al.) and Mongol speakers (who call it *tsege*: ᠲᠡᠭᠡ, or *airag* айраг).

The Turkic word *qımız* first appears around the mid-11th century CE in one Persian and two Karakhanid Turkic Islamic sources from Central Asia. The earliest attestation of *qımız* relates to the Kimek, a pre-Islamic Turkic-speaking tribal union which ruled the steppe in Western Siberia during the 9th and 10th centuries, where they were succeeded by the Kipchaks. The Persian historian Gardīzī in his history *Zayn al-aḥbār* (around 1050) quotes about the Kimek: "Their food during the summer is horse milk (*šīr-i asb*) which they call *qımız*."<sup>5</sup> Around 20 years later, in the 1070s, Yūsuf Ḥāṣṣ Ḥājib and Maḥmūd al-Kāšgarī record *qımız* in their native Karakhanid Turkic, in the realm of the Islamic Karakhanid Empire with its capital city Balasagun (in modern-day Kyrgyzstan). This date for the first attestation of *qımız* in a Turkic variety is relatively late, considering that written sources in Old Turkic varieties have existed since the 8th century CE. Subsequently, in the 13th century *qımız* is the common word used for "fermented mare's milk" in European travelers' (Latin) accounts on Mongolia – although the contemporary Mongolian text of the *Secret History* does not use *qımız*, but only Middle Mongol *ešüg* (lit., fermented). From the

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Sreznevskii, *Slovar' Drevnerusskogo Iazyka* (Reprintnoe izd. Moskva: "Kniga," 1989), 1: part 2, 1266 and 1363). However, Edward L. Keenan has questioned the authenticity of the Igor Tale and argued that the text actually originates from the 18th century (Edward L. Keenan, "Turkic Lexical Elements in the 'Igor Tale' and the 'Zadonščina,'" *The Slavonic and East European Review* 80, no. 3 (2002), 479-482).

<sup>4</sup> Today, kumis has an average of 2% alcohol by volume (cf. beer 5% ABV; wine 13% ABV; *boza*, a Turkic fermented barley drink 1%).

<sup>5</sup> Gerhard Doerfer, *Türkische und Mongolische Elemente im Neupersischen* = TMEN (Wiesbaden: F. Steiner, 1963–1975), 3: 512–517, no. 1529. 300 years later Alisher Navoiy also cites *qımız* in his list of Turkic food and drink terms that are used by Persian speakers, see fn 28, below.

13th century onwards *qımız* is the dominant word for “fermented mare’s milk” in Persian, Arabic, and Turkic literature from Anatolia, Iran, Central Asia and the Eurasian steppes, except for Mongolia and China.

**Archeological evidence for horse domestication and horse dairying, and textual evidence for (fermented) horse milk before the Common Era**

New archeological evidence points to the beginning of horse milk consumption—as a result of the domestication of the horse—by early Bronze Age pastoralists in the Pontic-Caspian (i.e. western Transeurasian) steppe, by the third millennium BCE.<sup>6</sup> Independently, the lower Volga-Don region (today partly Ukraine, Russia, and Kazakhstan) has in particular been pinpointed as the homeland of modern domestic horses.<sup>7</sup> Since Bronze Age Eurasians were generally lactose intolerant, horse milk was hardly consumed raw, but rather fermented (in the form of kumis, yogurt, buttermilk, etc.).<sup>8</sup>

The earliest known textual evidence—before the Common Era—for a (fermented) dairy beverage from mare’s milk comes from Old Iranian, Ancient Greek, and Old Chinese sources: 1) As shown by Erdal (2009), the text of the

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6 See S. Wilkin, et al., “Dairying Enabled Early Bronze Age Yamnaya Steppe Expansions,” *Nature* 598 (2021): 629-633; and W. T. T. Taylor, C. I. Barrón-Ortiz, “Rethinking the Evidence for Early Horse Domestication at Botai,” *Scientific Reports*, no. 11 (2021), 1-11. <https://doi.org/10.1038/s41598-021-86832-9>. Wilkin’s et al. results were drawn from the analysis of dental calculus of human remains from the Early Bronze Age; no evidence of dietary milk proteins was found in the pre-Bronze Age Eneolithic individuals from Botai. Thus, the earlier popular consensus (based on Outram, A. K. et al., “The Earliest Horse Harnessing and Milking,” *Science*, no. 323 [2009]: 1332-1335) which supported horse domestication and horse milk drinking at Botai, northern Kazakhstan, about 3500 BCE, is no longer valid.

7 P. Librado, N. Khan, A. Fages, et al., “The origins and spread of domestic horses from the Western Eurasian steppes,” *Nature*, no. 598 (2021): 634-640. Librado’s et al. and Wilkins’s et al. findings fit well with the estimate that “equestrian pastoralism might have first been introduced into Mongolia [...] via Tuva in southern Siberia and sometime during the Middle Bronze Age (ca. 1500 BCE)”—based on the fact that remains of domesticated horses are only regularly found at both ritual and habitation sites in Mongolia from 1300 BCE onward (Jean-Luc Houle, “Bronze Age Mongolia,” *The Oxford Handbook of Topics in Archaeology* (online edn, Oxford Academic, 2 Oct. 2014), <https://doi.org/10.1093/oxfordhb/9780199935413.013.20>, accessed September 9, 2023).

8 These fermented dairy products differ from each other in the types of microbes or starter cultures used, and details of preparation.

Avesta, the sacred book of Zoroastrians, records the native Old Iranian word *hurā* three times (the Avesta was first committed to writing probably late in the Sasanian period (224–651 CE), after nearly two millennia of oral transmission by priests).<sup>9</sup> Old Iranian (Avestan) *hurā* (which is a cognate of Sanskrit *surā*, an alcoholic fermented grain drink, sometimes also made with milk) is once glossed as “wine made from mare’s milk,” apparently a drink of the aristocratic elite. — It is important to note that a Middle Iranian reflex of the Old Iranian word *hurā* is the etymon for Karakhanid Old Turkic *qor* “ferment, starter culture (for making *qımız* and yogurt)” (to be discussed in more detail later). 2) Multiple Greek sources concern the (Scythian) nomads of the Pontic-Caspian steppe. In the fifth century BCE Herodotus gives a description of the process of milking mares, and shaking the milk in wooden buckets—presumably part of a fermentation process—among the Scythians, i.e. North Pontic nomads, presumably of Iranian origin.<sup>10</sup> 3) Old Chinese sources from the second century BCE onwards from the Han dynasty mention the word *lao* “fermented or sour mare’s (or cow’s) milk, etc.” Subsequently, *lao* has been continuously in use in historical Chinese sources (besides other Chinese words used later to designate “(variants of) fermented or sour mare’s (or camel’s) milk”). The Old Chinese sources indicate that the product and the word *lao* was borrowed from the Xiongnu who were the dominant confederacy of pastoral nomads of the eastern Eurasian steppes at that time. The Xiongnu are referred to (directly and indirectly) in Chinese sources between the second century BCE and second century CE. The Xiongnu were a multilingual union of pastoral nomads that probably included speakers of Turkic, Iranian, and Yeniseyan. Which language the known words of the Xiongnu represent is an unresolved matter.<sup>11</sup>

9 Elizabeth Tucker, “Indo-Iranian languages,” in *The Oxford Handbook of Etymology*, ed. Philip Durkin (Oxford University Press, forthcoming 2024).

10 See the passage in Greek and English translation in William P. Thayer (webmaster), “Herodotus: Book IV: chapter 2,” *LacusCurtius*, [https://penelope.uchicago.edu/Thayer/E/Roman/Texts/Herodotus/4a\\*.html](https://penelope.uchicago.edu/Thayer/E/Roman/Texts/Herodotus/4a*.html). See also Stephanie West, “Introducing the Scythians: Herodotus on Koumiss (4.2),” *Museum Helveticum* 56, no. 2 (1999): 76–86. For references to (nomadic / Scythian) “Mare Milkers” in Homer and Hesiod (both 8th–7th centuries BCE) see Erdal, “What Did the Old Turks Call Fermented Mares’ Milk?” 293–294.

11 See E. G. Pulleyblank, “The Consonantal System of Old Chinese: Part II,” *Asia Major* 9, no. 2 (1962): 248–256; and Lars Johanson, “Chapter 6: Historical Backgrounds,” in *Turkic* (Cambridge

**Byzantine Greek, Turkic, Sogdian, Chinese, Arabic, Persian,  
and Mongolian sources (6th–13th century) that do NOT mention  
the word *qımız***

Appropriate sources to find early attestations of *qımız* are obviously the Old Turkic literatures themselves, as well as texts in other languages that record diplomatic or other contacts and encounters with Turkic peoples, in territories ruled or inhabited by Turkic speaking groups. There are sporadic references to the consumption of wine (starting in the 6th century), and hard liquor (starting in the 9th century at the earliest) among various Turkic peoples: Greek “*gleukos*,” “sweet wine” (potentially referring to “honey wine”) among the Türk of the First Türk Empire (6th century); Ibn Faḍlān’s Turkic “*süçü*” = Arabic “*šarāb al-‘asal*,” i.e. “honey drink (or wine)” among the Bulghar Turks (10th century); Old Uyghur *bor* and *süçig* “wine,” and *arakı* “hard liquor” (9th–13th centuries). Indirect and/or uncertain references to, and non-Turkic words for “fermented mare’s milk” (or similar dairy products), with some connection to the Uyghurs, are: Sogdian *cšt-* (between 8th–11th centuries), and Chinese *donglao* (11th century, reporting an event of the 9th century); Ibn Faḍlān’s Arabic “*nabīd*,” lit. “(fruit) wine” is potentially referring to “kumis” (?) among the Oghuz (10th century); Persian “*šir*,” “milk” in the *Ḥudūd al-‘ālam* is most probably referring to “kumis” among the Kimek (10th century). However, the word *qımız* is not recorded before Gardīzi’s Persian history around 1050, and the major Karakhanid works *Qutadγu Bilig* (1069–70) and Kāšgarī’s *Dīwān Luğāt at-Türk* (1077). The following examples are sources that are generally assumed to contain the word *qımız* but do not; or sources that mention “fermented mare’s milk” but do not use Turkic *qımız* but instead Sogdian, Chinese, or Mongol words for it.

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University Press, 2021), 114–142. Sinologists have reconstructed the Old Chinese pronunciation of *lao* 酪 as \**rāk* < \**g-rak* (Pulleyblank, “The Consonantal System,” 253; Axel Schuessler, and Bernhard Karlgren, *Minimal Old Chinese and Later Han Chinese: A Companion to Grammata Serica Recensa* (Honolulu: University of Hawai’i Press, 2009), 66. Pulleyblank 1962 has (somewhat boldly) linked \**g-rak* to Middle Mongolic *ayiray* (which is first attested in 14th century Mongol-era Chinese, and not widely used in the modern Mongolic languages) and called Chinese *lao* and Mongol *ayiray* loanwords from the same (non-Mongolic) Xiongnu basis. – I owe a debt of gratitude to Christopher P. Atwood who so kindly and generously shared his expertise relating to Chinese and Mongolic questions and original sources with me.

In the 6th century—in response to a previous Türk embassy to Byzantium—the Byzantine envoy Zemarchos led a legation to the court of “Silzibul (Greek Σιλζίβουλος, with variants) of the Turks” in the region of Sogdiana in Central Asia. In modern scholarship, Silzibul is generally identified with İstemi (or İstemi) Qaghan, the ruler of the western regions of the first Türk Empire (552–630). Zemarchos’ report—as preserved in the fragments of Menandros’ historical work—mentions a luxurious reception where the Türk drank a native/foreign (“barbarous”) kind of *gleukos* (“γλεύκουσ”), i.e. “sweet wine,” explicitly not made of grapes. R. C. Blockley has already rejected Édouard Chavannes’ previous claim that the mentioned *gleukos*, “sweet new wine” (also “grape juice; sweetness”) was a reference to kumis since kumis is sour.<sup>12</sup> Mihály Dobrovits’s suggestion that it might be some Chinese type sweet rice wine<sup>13</sup> is plausible; an Old Uyghur term *tuturkan suvsuŝ*, lit., rice drink, is recorded for “rice wine” (at least) 300 years later. However, it is noteworthy that one of the Old Turkic words for “wine,” *süčüg* “sweet wine, grape juice, must; sweet” is a semantically (almost) exact equivalent to Greek *gleukos*.<sup>14</sup> So, Greek *gleukos* here

12 Édouard Chavannes, *Documents sur les Tou-Kiue (Turcs) occidentaux ...* (St.-Petersbourg: Commissionnaires de l’Académie impériale des sciences, 1903), 273; R. C. Blockley, *The History of Menander the Guardsman* (Liverpool, Great Britain: F. Cairns, 1985), 120-121, 264. Blockley (*The History of Menander the Guardsman*, 264) erroneously points to a reference to *qumız* in Priscus’ account of the Byzantine embassy he led to the court of Attila in the 5th century. But in his 1981 edition of Priscus’ account there is no mention of *qumız*: Priscus references the “local” word *medos* (apparently an Indo-European cognate of mead, honey wine), that the Barbarians drink instead of wine; and “a drink made from barley, which the barbarians call *kamon*” (R. C. Blockley, *The Fragmentary Classicising Historians of the Later Roman Empire: Eunapius, Olympiodorus, Priscus, and Malchus* (Liverpool, Great Britain: F. Cairns, 1981), 2: 261 and 384, endnote 44). *Kamon* a.k.a. *camum* is known from Greek and Latin sources as a term for a barley beer.

13 Mihály Dobrovits, “The Altaic World Through Byzantine Eyes: Some Remarks on the Historical Circumstances of Zemarchos’ Journey to the Turks (AD 569–570),” *Acta Orientalia Academiae Scientiarum Hungaricae* 64, no. 4 (2011): 373-409, here: 389.

14 Old Uyghur *süčüg* “sweet” and *süčüg* “sweet wine, grape juice, must” (Jens Wilkens, *Handwörterbuch des Altuigurischen: Altuigurisch-Deutsch-Türkisch* = HWAU (Göttingen: Universitätsverlag Göttingen, 2021)); Karakhanid Turkic *süčüg* “wine; sweet” < *süči-* “to be sweet” (Robert Dankoff and James Kelly, eds., Maḥmūd al-Kāšgarī: *Compendium of the Turkic Dialects (Dīwān luḡāt al-Turk)* = DLT (Harvard University Printing Office, 1982), 3: 170). Note that new wine at an early stage of fermentation (at least 4% alcohol by volume) is called *Suser*, *Sauser*, *Neuer Süßer*



might refer to Turkic *süçüg*. Note that *süçü*, in its Bulghar/Oghuz Turkic form *süçü*, is mentioned in Ibn Faḍlān's 10th century Arabic travel account where it explicitly refers to “honey wine” (see below).

The earliest representative of Old Turkic literature, the Runiform inscriptions from the 8th to 10th centuries—mostly from Western Mongolia and Southern Siberia—do not contain the word *qımız*.<sup>15</sup> In fact—being biographical or autobiographical narratives of the warfare conducted by the leadership of the Second Türk Empire against neighboring regimes, especially Tang China—the Old Turkic inscriptions do not contain any sort of food or drink vocabulary. The three attested references to food concern the scarcity of food and provisions, using the words *aş* “food” (no. 1); and *azuq* “food for a journey,” (no. 2):

(1) So that the name and fame of the Türk people [*türk bodun*] would not disappear, the Teñri who had raised my father as kağan and my mother as katun, the Teñri who had bestowed on us a realm, so that the name and fame of the Türk people would not disappear, made me kağan. I did not ascend to the throne over a prosperous people. The people over whom I ascended to the throne were *without food in their bellies* (lit., inside) [*içre aşsız*] and *without clothes on their bodies* (lit., outside) [*taşra tonsuz*] .... (Bilge Qaghan Inscription).<sup>16</sup>

(2) In order to organize the Sogdian people [*soğdaq bodun*], we crossed the Yinçü River and campaigned as far as the Iron Gate. Later, the Black Türgiş people there turned hostile and went to Keñeres. The horses of our army were emaciated and provisions had run out [*biziñ sü atı turuq azuqı yoq erti*]. ... (Kül Tëgin Inscription).<sup>17</sup>

The only references to feasts, ceremonies or celebrations in the Old Turkic Runiform inscriptions are to (multiple) funeral feasts (*yoğ*), with one reference to two weddings celebrated “with an extremely grand ceremony” (*ertiñü uluğ*

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(“sweet” or “new sweet”) in South West Germany and Switzerland (“Federweisser” in Germany, and “Sturm” in Austria).

<sup>15</sup> See the most recent edition of the Old Turkic inscriptions with a glossary in Hao Chen, *A History of the Second Türk Empire (ca. 682–745 AD)* (Leiden; Boston: Brill, 2021), 231–255; and the glossary in Talât Tekin, *Orhon Türkçesi Grameri* (Ankara, 2000), 237–260.

<sup>16</sup> Chen, *A History of the Second Türk Empire*, 210 (Orkhon Turkic text) and 220 (English translation). The same passage is also in the Kül Tëgin Inscription (Chen, *A History of the Second Türk Empire*, 201).

<sup>17</sup> Chen, *A History of the Second Türk Empire*, 188 (Orkhon Turkic text) and 202 (English translation).

*törün*; *törü* means "traditional customary, unwritten law").<sup>18</sup> None of these give any details on food or drinks offered or consumed during these celebrations. Thomas Allsen has pointed out that "ceremonial drinking" actually was part of the representational culture of the First Türk Empire (552–744), as graphically conveyed by the depiction of individuals "holding bowls or cups against their stomachs" on a large number of stone statues (*balbal*) from the Altai of this era.<sup>19</sup> Nevertheless the ritual function was not deemed noteworthy in the Runiform inscriptions.

Bearing in mind that this is a different text type and a different cultural domain, it is still worth pointing out the contrast with elaborate Turkic narrative texts from at least 700 years later from Anatolia, Central Asia, and Mughal India where *qımız* plays a role in the description of certain Oghuz and imperial Mongol customs and ritual ceremonies. Very few Old Anatolian Turkish texts (14th and 15th centuries) mention *qımız*—a romantic *mesnevi*, translated from Persian (*Süheyl ü Nevbahār*); and historical-epic texts (i.e. Yazıcioğlu 'Alı's *Tevāriḥ-i Āl-i Selçuk*, and the *Book of Dede Qorqud*)—generally dealing with the bygone days of the great Oghuz (or Seljuk) past.<sup>20</sup> Ibn Baṭṭūṭa's 14th century Arabic account of *qımız* consumption in the realm of the Golden Horde in

18 Chen, *A History of the Second Türk Empire*, Bilge Kagan Inscription, 217 (Orkhon Turkic text) and 225 (English translation).

19 Thomas T. Allsen, *Notes on Alcohol in Pre-Russian Siberia* (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2018), 2.

20 See two Old Anatolian Turkish verses from *Süheyl ü Nevbahār* (translated from Persian in 1350 by Hoca Mes'ūd) mentioning *qımız* in the description of a drinking feast: 2120 *Oturdılar içküye quruldı bezm | Durup gitmege etmedi kimse cezme. 2120 Döküldi süci vü qımız u boza | Ki her biri biy 'aql evini boza. 2121 Eger at qaçaydı çilbur üzüp | Süciden qımızdan geçeydi yüzüp. 2122 İçildi qamusu açıldı gönjül | Çoğ ayır baş esridi oldı yeñül.* "2120 They sat down to drink, and a party was set up | No one was inclined to get up and leave. 2120 Wine (*süci*), *qımız*, and *boza* was poured | Each of (the drinks) could rob a thousand men of their senses. 2120 If a horse would tear its bridle strap and run away / It would have to swim through the (floods of) wine (*süci*) and *qımız*. 2122 All drinks were finished, the hearts opened up / Many solemn (lit., heavy-headed) men got drunk and light-headed." (Özkan Cığa, "Süheyl ü Nevbahār: Metin-Aktarma, Art Zamanlı Anlam Değişmeleri, Dizin," Unpublished Graduate (Yüksek lisans) thesis, Diyarbakır, 2013; the English translation is mine). After the 15th century, in Ottoman, *qımız* is only attested in historical dictionaries, and in Evliya Çelebi's *Seyahatname* where it is attributed to the "Tatars" (see Ömer Asım Aksoy and Dehri Dilçin, *Tarama Sözlüğü* (Ankara: Türk Tarih Kurumu Basımevi, 1963–1977), "kımız."

the Crimea and the Pontic-Caspian Steppe is well-known,<sup>21</sup> but Ibn Baṭṭūṭa does not mention *qımız* consumption in Anatolia. See the following examples for ceremonial consumption or usage of *qımız*: (no. 3) Consumption of *qımız* during an imperial Seljuk wedding ceremony, namely the wedding of Sultan ‘Izzeddīn Keykāvus to the daughter of the Mengücek ruler of Erzincan in the early 13th century, from Yazıcıoğlu ‘Alī’s Old Anatolian Turkish history of the Anatolian Seljuks, *Tevārīḥ-i Āl-i Selçuk* a.k.a. *Oğuznâme* a.k.a. *Selçuknâme* (completed 1424 or 1436–37); and (no. 4) a ritual ceremony related to the arrangement of the Moghul army near Tashkent in 1502, from Bābūr’s 16th century Chagatai Turkic (*Turkī*) autobiographical work *Vaqā’i*’, “Events (of his life),” known as the *Bābūrnâme*.

(3) When the marriage contract was concluded a sum of 100.000 Florin was assigned as *mahr* (to be paid to the bride). The bond, union, and relationship were thereby confirmed. The shouts of the heralds and proclaimers saying “May [the union] be felicitous and blessed!” rose all the way from the center of the earth to the highest heavens. Gold and silver coins and jewels were scattered around, so that the royal tent and the open area in front of it became decorated like a court strewn with flowers. A special dinner spread was set up and everyone was invited to eat. Everyone reached out to the food and ate. Various sorts of grains (?) (*dāne*), saffron rice, broth, a dish prepared with buttermilk (*dūy bā*), a dish prepared with yogurt (*māstāba*), skewered and roasted meats, helvas and sambosa pastries were eaten. Everyone ate as much as they liked, so that no one—neither the ones sitting nor the ones on their feet (i.e. of high and low status)—was left without enough food. Aromatic musky sharbats, *qımız*, and *qimran* was drunk according to Oghuz custom (*qımız ve qimran Oğuz resmince içildi*). (Yazıcıoğlu ‘Alī, *Tevārīḥ-i Āl-i Selçuk*)<sup>22</sup>

21 See A. Sait Aykut, transl., *İbn Battūta Seyahatnamesi: Çeviri, İnceleme ve Notlar*, 2nd ed. (İstanbul: Yapı Kredi, 2004), 1: 466, 472, 476, 478–479, 482, 498. E. g. p. 478: Özbek Khan’s first wife, “the Great Khatun (*al-ḥātūn al-kubrā*), ... ordered that *qımız* be served; they brought *qımız* in delicate light wooden cups (*aqdāḥ ḥaṣab liṭāf ḥiṣāf*); she took the cup in her hand and handed it to me. ... I tasted it, and it was no good“ (Arabic text in: Muḥammad al-Muntaṣir Kattānī, *Rihlat Ibn Baṭṭūṭah*, ([Bayrūt]: Mu’assasat al-Risālah, 1975), 1: 370–371).

22 My English translation is based on Abdullah Bakır’s valuable edition of the Old Anatolian Turkish text which can be improved with some editing and correcting (Abdullah Bakır, ed., *Tevārīḥ-i Āl-i Selçuk: (Oğuznâme-Selçuklu Tārīhi): Giriş, Metin, Dizin* (İstanbul: Çamlıca, 2009), 299). More text passages on *qımız* from Yazıcıoğlu ‘Alī’s history of the Anatolian Seljuks can be found in Semih Tezcan, “Kimran, Alkolsüz Bir İçki,” in *De Dunhuang à Istanbul: Hommage à James*

(4) ... Nine standards were set up before [the Khan]. A Moghul tied a long piece of white cloth to a cow's shank and held the other end of the cloth in his hand. Another three long pieces of cloth were tied [to the standards] below the yak tails and wrapped down to the bottom of the standard poles. The end of one piece of cloth was brought for the Khan to stand on. I stood on the end of another, and Sultan Muhammad Khanika stood on the third. The Moghul took hold of the cow's shank to which the cloth was tied, said something in Mongolian and, facing the standards, made a gesture. The khan and all those standing by *sprinkled their qımız onto the standards (tuş sarıya qımızlar saçadurlar)*. All at once the hautbois and drums were sounded, and the army standing in ranks let out whoops and shouts. Three times they did this. After that the army mounted their horses, shouted, and galloped around. Among the Moghuls the arrangement of the army is exactly as Genghis Khan left it. (*Bābürnāme*)<sup>23</sup>

Returning to pre-13th century sources that do not contain the word *qımız*, it is notable that no reference to the word *qımız*, or fermented mare's milk has (yet) been found in the best attested part of the Old Turkic text corpus, the rather extensive pre-Islamic Old Uyghur literature from the Turfan Oasis (in present-day Xinjiang) and the ancient city of Dunhuang (in present-day Gansu), all in today's western China. This literature is made up of manuscripts and inscriptions dating from the 9th to 13th centuries, largely translated from Tocharian, Chinese, Sanskrit, or Sogdian originals. The fact that *qımız* is not attested may stem from the subject matter of the source texts—mostly (but not exclusively) religious in content (Manichaean, Buddhist, Christian), as well as the lifestyle they primarily reflect, namely that of a mixed population of Uyghur, Tocharian, and Iranian (Sogdian and Khotanese) urban and semi-sedentary

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Russell Hamilton, ed. Louis Bazin and Peter Zieme (Turnhout: Brepols, 2001), 349-358; e.g. on the benefits of pastoral nomadism: "They should always migrate, and not settle. They should roam in the spring pasture (*yazla*) in spring, in summer pastures (*yaylaq*) in the summer, in the autumn pasture (*güzle*) in autumn, and in the winter pasture (*qışlaq*) or the coastal region in winter. So they will have no food shortage, their livestock (*davar*) will not be thin, and there will be *no shortage of qımız, qımran, milk and yogurt*. They will have abundant livelihood and a pleasant life." (Tezcan, "Kımrān," 350; the English translation is mine).

23 Chagatai text and English translation in Wheeler M. Thackston, ed., *The Baburnama: Memoirs of Babur, Prince and Emperor* (Washington, D.C.: Freer Gallery of Art: Arthur M. Sackler Gallery, Smithsonian Institution, 1995), 201. Thackston's English translation has been minimally modified by me. I am grateful to Kutay Serova for this reference.

peoples of the Uyghur Kingdom in the Tarim Basin.<sup>24</sup> We can assume that the Uyghur elite and the nomadic Turkic tribes of these borderlands between China and the steppe were familiar with and consumed fermented mare's milk. However, vocabulary specific to their horse dairying culture seems little reflected in Old Uyghur literature.

To give an impression of the kind and amount of lexical data relating to milk, dairy products, and alcoholic beverages attested in the Old Uyghur sources, here is a list compiled from Jens Wilkens's *Handwörterbuch des Altuigurischen* (2021):<sup>25</sup> mare (*bi* ~ *bè* or *qırsraq*); white mare (*aq bi*); camel cow (*ingen*); camel cow, or dromedary cow (imported from the West) (*ditir*); milk (*süt*); pure, undefiled milk (*say süt*); (for milk after boiling) to produce a layer of fat, i.e. milk skin, on the top (*qayaqlan-*);<sup>26</sup> cooked hot milk (*bısrıy isig süt*); butter and milk (*yay süt*); honey and milk (*mir süt*); to milk (*say-*); dairy sheep (*saylıq qoyn*); dairy goat (*saylıq ečkü*); cow's milk (*ingek süti*); sheep's milk (*qoyn süti*); goat milk (used as a medicine) (*ečkü süti*); donkeys milk (*eşgek süti*); mother's milk (*kişi süti*, lit. human milk); dog's milk (*ıt süti*); a milk dish (*süt aş*, lit., milk food); milk pudding, flour and rice (*aq aş*, lit., white food); milk gruel (*süt ökre*); yogurt, soured milk (or sour buttermilk?) (German "Joghurt, Dickmilch") (*yoğrut*); dried curd (*qurut*); wine, alcohol (*bor*);<sup>27</sup> wine vinegar (*bor serkesi*); alcoholism (*bor ig*, lit.,

24 See Michael Brose, "The Medieval Uyghurs of the 8th through 14th Centuries," in *The Oxford Research Encyclopedia of Asian History*, ed. David Ludden (New York: Oxford University Press, 2017, online): <http://asianhistory.oxfordre.com/view/10.1093/acrefore/9780190277727.001.0001/acrefore-9780190277727-e-232>.

25 Wilkens, HWAU. The transcription has been adapted to the system used here (q = k, e = ä, é = e, ʏ = g, ş = š, ç = č).

26 *Qayaqlan-* and its nominal base *qayaq* "milk skin" are also attested in the 11th century Karakhanid Turkic as *qayaq* (قَيَاقُ، قَيَاقُ), and *qanaq* (قَنَاقُ) "in the dialects of the Arghu and the Bulghar," today represented by Khalaj and Chuvash, respectively (DLT, 1: fol. 193: 294; DLT, 2: fol. 458: 163; fol. 518: 235; fol. 531: 252). Dankoff and Kelly gloss Arabic *duwāya* "skin of milk (or broth)," the equivalent of Turkic *qayaq* ~ *qanaq*, with "pellicle." The variant forms *qayaq* ~ *qanaq* point to an early Old Turkic form \**qañaq* (reconstructed approximate pronunciation: \*[qanʷaq]). Modern Turkish *kaymak* "(clotted) cream" is an (irregular) reflex of OT *qayaq/qanaq* (the regular Old Anatolian Turkish reflex should be \**qaynaq* < \**qaynaq* < OT \**qañaq*; cf. OT (runiform) *qoñ* "sheep" ~ Old Uyghur *qoyn* > OAT *qoyun*, Kazakh *qoy*).

27 The word *bor* occurs in the phrase *otča borča* in the Old Turkic Runiform inscriptions, and cannot mean "wine" there. Chen tentatively translated it as "The Türgiř kağan's army came like

wine illness); wine (*bor sorma*), and wheat beer (*sorma*);<sup>28</sup> sweet wine, grape juice, must (*süçüg*); hard liquor (*araqı*, ultimately from Arabic ‘araq “sweat”); beer (*begni*);<sup>29</sup> rice wine (*tuturkan suvsuś*, lit. rice drink); to get drunk (*äsür-*). Considering this fairly detailed list—including cow’s milk, sheep’s milk, goat milk, donkey’s milk, and even mother’s milk and dog’s milk—the absence of *at süti*, horse milk; *qımız*, fermented mare’s milk; and *qor*, ferment, starter culture (as well as lesser expected *ayray* or *ayran*) is nevertheless remarkable.

Although *qımız* is not attested in Old Uyghur sources, fermented mare’s milk is mentioned in Chinese and (Middle Iranian) Sogdian texts of the same time period that are more or less directly connected to the Uyghurs, using Sogdian and Chinese terms for it: The *Xin Tang shu*, New History of the Tang (completed in 1060), provides indirect evidence for the consumption of fermented mare’s milk among the heterogeneous population of the Uyghur Steppe Empire (744–840) which was centered around the Orkhon river in the central Mongolian steppe and had preserved a nomadic lifestyle. The New Tang history—retrospectively—gives an account of a Uyghur embassy to the Tang court in 807. The embassy is coming from the capital city Qara Balghasun (a.k.a. Ordu Balıq), asking the Tang court for permission to build Manichaeian

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*fire and storm [otča borča]*” (Chen, *A History of the Second Türk Empire*, 188 (Orkhon Turkic text) and 221 (English translation)). Ünal has convincingly argued for the meaning “like fire and clouds of dust” (“ateş ve toz bulutu gibi”) (Orçun Ünal, “Kül Tegin ve Bilge Kağan Yazıtları’nda Geçen *otča burča* İfadesi Üzerine,” *Gazi Türkiyat* no. 26 (Bahar 2020): 127-143).

<sup>28</sup> Wilkens, HWAU, glosses *bor sorma* as “wine,” but *sorma* as “wheat beer.” Apparently, *sorma* can mean “wine” or “beer,” although the sources are often not explicit (see Gerard Clauson, *An Etymological Dictionary of Pre-thirteenth-century Turkish* (Oxford: Clarendon Press, 1972), 852). In Alisher Navoiy’s *Chagatai Judgment of Two Languages* (c. 1500), and in the Middle Kipchak pre-Islamic *Oghuzname* (probably 15th century), *sorma* and *qımız* are used together in one passage, albeit both with no definition: “The Persians ... use Turkic [words] for such beverages as *qımız*, *sorma*, ...” (Robert Devereux, “Judgment of Two Languages: *Muḥākamat al-lughatain* by Mīr ‘Alī Shīr Nawā’ī: Introduction, Translation and Notes (First Installment),” *The Muslim World*, 54, no. 4 (Hartford, 1964): 270-287, here: 286; Tūrkhān Ganja’ī, and Ruqayya Nūrī, transl., *Muḥākama al-Lughatayn / Amīr ‘Alīshīr Nawāyī (Tīhrān: Intishārāt-i Andīsha-i Naw, 2008), 41*); “They ate and drank various foods and various (kinds of) *sorma*, *čbīyan* (jube fruit?), and *qımız*. After the feast, ... (Oghuz Qaghan ...)” (Balázs Danko, *The ‘Pağan’ Oğuz-nāmā: A Philological and Linguistic Analysis* (Wiesbaden: Harrassowitz Verlag, 2019), 73).

<sup>29</sup> Wilkens, HAUW, “bāgni”: beer, also the equivalent of Sanskrit *surā*.

temples in China. In this context we learn about the habits of the Manichaean clergy among the Uyghurs: “Their laws prescribe that they should eat only in the evening, drink water, eat strong vegetables and abstain from ‘fermented mare’s milk’ [the word used in the Chinese text is *donglao*].”<sup>30</sup> A similar reference to kumis—with a Christian religious background<sup>31</sup>—is attested in a Sogdian source from the Turfan Oasis in Xinjiang: Nicholas Sims-Williams, in his work on Christian Sogdian texts (8th to the 11th century) from the Turfan collection, has recorded the Sogdian word *cšt-* and glossed it with “kumis,” since it had earlier been shown to be an equivalent of Chinese *lao* “fermented milk, koumiss, yogurt, etc.”<sup>32</sup> The Sogdian text fragment deals with the manner in which the Christian fast should be conducted: *zwty (n') xwr' y'ty ZY n' qpy n' y'wrwɣn n' cšt' n' xšybyty n' pyn n' rxpyn ms qd'c(p)r* “... [do not drink] alcoholic liquor, do not eat meat, nor fish, nor butter, nor koumiss (*cšt-*), nor milk, nor cream, nor yogurt. Moreover, never undertake the fast with slaughtered meat and intoxicating drink, nor break (the fast) with these things, because the fast is a heavenly festival and (an occasion for) purity of obeisance.”<sup>33</sup> In sum, these

30 See Colin Mackerras, “Chapter 12: The Uighurs,” in *The Cambridge History of Early Inner Asia*, ed. Denis Sinor (Cambridge: Cambridge University Press, 1990), 317–342, esp. 333–334; Gunner B. Mikkelsen, *Dictionary of Manichaean Texts*, III: *Texts from Central Asia and China*, Part 4: *Dictionary of Manichaean Texts in Chinese* (Turnhout: Brepols, 2007), 16 (entry on *donglao*).

31 William Rubruck among the Mongols in the 13th century quotes the same information on the significance of *qumız* for Eastern Christians: “... the Russian, Greek and Alan Christians who live among them and who wish to observe their religion do not drink it (i.e. “*comos*”), and in fact once they have drunk it, they do not regard themselves as Christians, their clergy reconciling them as if they had abjured the Christian faith.” (Peter Jackson and David Morgan, *The Mission of Friar William of Rubruck: His Journey to the Court of the Great Khan Möngke, 1253–1255* (London: The Hakluyt Society, 1990), 101, also 104).

32 Dieter Weber, “Die Stellung der sog. Inchoativa im Mitteliranischen” (PhD diss., Göttingen: 1970), 54; W. B. Henning, “The Sogdian Texts of Paris,” *Bulletin of the School of Oriental and African Studies* 11, no. 4 (1946): 724.

33 Nicholas Sims-Williams, et al., *Biblical and Other Christian Sogdian Texts from the Turfan Collection* (Turnhout: Brepols Publishers, 2014), 84–85, 102; Nicholas Sims-Williams, *A Dictionary: Christian Sogdian, Syriac, and English* (Wiesbaden: Reichert Verlag, 2016), 63. Durkin-Meisterernst has recorded Manichaean Persian *cšt*, and linked it to the verbal stem *chš-* /*čahš-* “to drink, taste” (Desmond Durkin-Meisterernst, *Dictionary of Manichaean Texts*, III, 1: *Texts from Central Asia and China (Texts in Middle Persian and Parthian)* (Turnhout, Belgium: Brepols, 2004), 128).

Chinese and Sogdian texts from before 1100 indirectly attest to the consumption of kumis among the Uyghurs but they do not use the word *qumuz* as the universal name for the product but have names of their own.

An especially important Arabic travel account from the late 10th century of the western Transeurasian steppes is Ibn Faḍlān's account (*Risāla*) of his embassy to the king of the Volga Bulgars who were vassals of the Khazars and had just converted to Islam. His mission included religious instruction for the new Bulgar Muslims, as well as diplomatic negotiations. Setting out from Abbasid Baghdad, Ibn Faḍlān arrived at the court of the Bulgar king near the confluence of the Volga and Kama Rivers in 922. On his way, he traversed the lands of various Turkic peoples, and subsequently provided highly original information on these peoples, among them the not yet converted nomadic Oghuz and the newly converted Volga Bulgars. Ibn Faḍlān makes note of (genuine and non-genuine) Turkic words such as *qilawus* قلوس (MS erroneously فلوس) "guide (corresponding to Arabic *dalil*)"; *bir* بىر "one"; *tengri* تنگرى "God"; *ḥadmg* خذنگ (Old Uyghur *qadıy*, Turkish *kayın*) "birch"; *yabyu* يابغو here: "title of the ruler of the Oghuz"; *ḥaqan* خاقان here: "title of the king of the Khazars,"<sup>34</sup> and *sūcū* سجو "wine" (see below), but—rather surprisingly—does not mention (fermented) horse milk at all. When describing Oghuz burial customs, which involve horse sacrifice and eating the flesh of the sacrificed horses, Ibn Faḍlān mentions an alcoholic beverage as part of the ritual (using the generic Arabic word *nabīd*), which is kept in a wooden container and drunk from a wooden cup (no. 5).

(5) The Turks dig a large ditch, in the shape of a chamber for their dead. They fetch the deceased, clothe him in his tunic and girdle, and give him his bow. *They put a wooden cup filled with alcohol [qadah min ḥaṣab fihī nabīd] in his hand and place a wooden vessel of alcohol [inā' min ḥaṣab fihī nabīd] in front of him.* They bring all his wealth and lay it beside him, in the chamber. They put him in a sitting position and then build the roof. On top (of the chamber) they construct what looks like a yurt made of clay. [Note this description of the raising of a tumulus or kurgan!]. Horses are fetched, depending on how many he owned. They can slaughter any number of horses, from a single horse up to

34 James E. Montgomery, transl., *Mission to the Volga / Ibn Faḍlān* (New York: New York University Press, 2017): for *qilawus* see *Falūs*, 9 and 86; *bir* and *tengri*, 10; *yabyu*, 15; for *ḥaqan* see *Khāqān*, 39 and 92; for *ḥadmg* see *Khadhank*, 92; Zeki Velidi Togan, ed., *Ibn Faḍlān's Reisebericht* (Leipzig: Deutsche Morgenländische Gesellschaft, 1939), 19: §17 (*qilawus*) (Arabic text).



a hundred or two hundred. They eat the horse meat, except for the head, legs, hide, and tail, which they nail to pieces of wood, saying, “(These are) his horses that he rides to the Garden [*al-janna*, the otherworld].” If he has shown great bravery and killed someone, they carve wooden images, as many as the men he has killed, place them on top of his grave, and say, “(These are) his retainers who serve him in the Garden.” Sometimes they do not kill the horses for a day or two. Then an elder will exhort them: .... (Ibn Faḍlān, *Risāla*)<sup>35</sup>

Renata Holod and Yuriy Rassamakin (2012) have reported on the grave goods found in the burial mound (tumulus or kurgan) of a (Kipchak) Turkic prince, in the Black Sea Steppe, datable to the early 13th century (300 years after Ibn Faḍlān). The grave goods include five sacrificial horses and reused amphorae. Since it was determined that the sediment normally found in wine amphorae was absent, the authors have proposed—but not yet confirmed—that the amphorae may have held a different liquid, possibly kumis.<sup>36</sup> So, Ibn Faḍlān’s *nabīd* here may refer to fermented mare’s milk as earlier translators—but not James Montgomery in 2017—have suggested. Still, one would have expected Ibn Faḍlān to elaborate on this presumably interesting detail.

Ibn Faḍlān is more explicit in his description of the alcoholic beverage he is served after a roasted meat (*lahm mašwi*) dinner in the tent of the king of the Bulgars (usually referred to as “king of the Ṣaqāliba”), further north of the Oghuz—even providing a Turkic name for it: The Bulghar king drinks a cupful (*qadah*) of “honey drink” (*ṣarāb al-‘asal*) which “they (i.e. the Bulgars) call *sūcū*” (*hum yusammūnahū al-sujū*).<sup>37</sup> This is a very early—maybe the earliest—reference for the widespread historical Turkic word for “(sweet) wine” (*sūcū* is the Bulghar and Oghuz cognate of Old Uyghur *sūcūg*, see the Old Uyghur word list above). It was commonly used in 14th–15th century Old Anatolian

35 Montgomery, *Mission to the Volga*, 14; Togan, *Ibn Faḍlān’s Reisebericht*, 14 (Arabic text).

36 Renata Holod and Yuriy Rassamakin, “Imported and Native Remedies for a Wounded “Prince”: Grave Goods from the Chungul Kurgan in the Black Sea Steppe of the Thirteenth Century,” *Medieval Encounters* 18 (2012): 339–381, esp. 358–360.

37 For some questions concerning this passage see Montgomery, *Mission to the Volga*, 71–72 (Note 36), and 100 (Glossary). The geographer and lexicographer Yāqūt (d. 1229), who has quoted long passages from Ibn Faḍlān’s (until then apparently unknown) text, added a verb here expressing that Ibn Faḍlān also drank from the (alcoholic) honey wine. However the original text does not say that. Togan, *Ibn Faḍlān’s Reisebericht*, 44 (German translation and footnotes 2–3), 21 (Arabic text).

Turkish texts as *süci* and *sücü* "wine"; both variants *süci/sücü* "wine" were still recorded in 20th century Anatolian dialects from the Aegean region.<sup>38</sup>

Thomas T. Allsen, in his excellent study *Notes on Alcohol in Pre-Russian Siberia* (2018), mentions two Central Asian historical sources from the late 10th and early 12th centuries, in Persian and Arabic, as evidence for the consumption of kumis as an essential component of the nomadic Kimek's subsistence strategy.<sup>39</sup> However, the word *qımız* is not used in either account; the earlier one, i.e., the late 10th century Persian geography work *Hudūd al-‘ālam*, does not even mention horses or horse milk. *Hudūd al-‘ālam* originates from what is today northern Afghanistan. It was apparently based on earlier travel reports and geographical works rather than personal observation. The author quotes the information below on Kimek Country (*nāhiyat-i Kīmāk*) in the western Siberian steppe (no. 6). Only when read together with the corresponding passages in Gardizī's Persian history (around 1050), which has the earliest recorded instance of the word *qımız* (no. 7), and Ṭāhir Marvazī's later Arabic work (no. 8), can we assume that *šīr* "milk" in *Hudūd al-‘ālam* refers to "(fermented) horse milk." Ṭāhir Marvazī, in the part devoted to China, Turks, and India of his early 12th century Arabic work *Kitāb ṭabā‘i‘ al-ḥayawān*, "The Nature of Animals," certainly refers to fermented mare's milk when he says Arabic *laban ar-rimāk*, "mare's milk," although the word *qımız* is not mentioned.

(6) Kimek Country (*nāhiyat-i Kīmāk*) ... Its people live in felt yurts [*hargāh*] and both in summer and winter wander along the grazing-grounds, waters and meadows (*marḡzār*). Their commodities are sable (*samūr*) and sheep. Their food in summer is milk [*šīr*], and in winter meat jerky (*gušt-i qadīd*) (*Hudūd al-‘ālam*, Persian, late 10th century)<sup>40</sup>

(7) ... the river Irtysh passes by there. It flows down into the tents (*ḥayma*) of the Kimek (*Kīmyākiyān*) ... They live in the woods (*bīša*), in the valleys (*dara*), and in the forests (*ṣaḥrā*). They all possess cattle (*gāw*) and sheep. They don't have mules (*astar*). If

38 Aksoy and Dilçin, *Tarama Sözlüğü*, "süci, (sücü)"; *Türkiye'de Halk Ağzından Derleme Sözlüğü = Derleme Sözlüğü* (Ankara: Türk Tarih Kurumu Basımevi, 1963–1982), "süci" and "sücü."

39 Allsen, *Notes on Alcohol in Pre-Russian Siberia*, 14.

40 Persian text: Manūčihr Sutūdāh, ed., *Hudūd al-‘ālam min al-mashriq ilā al-maghrib, kih bi-sāl 372 hijrī qamarī ta'lif shudāh ast* (Tih-rān: Kitābkhānah-i Ṭuhūrī, 1983), 85; English translation, minimally edited by me: Vladimir Minorsky and V. V. Bartold, *Hudūd-al'Alam: 'The Regions of the World'* (Oxford: Printed at the University Press for the Trustees of the "E. J. Gibb memorial": London, Luzac & co., 1937), 99-100.

a merchant brings a mule there, it does not last for a year, because the mule will die from the herbs it eats. They also don't have salt, of course, and if someone gives them a maund (*man*) of salt, he gets sable fur (*pūst-i samūr*) (in return). Their food in summer is horse milk (*šīr-i asb*). They call it *qumız* (قمز). In winter they make meat jerky (*qadīd*); each of them, as much as he has, from sheep meat, horse meat, and beef. (Gardīzī, *Zayn al-aḥbār*, Persian, around 1050)<sup>41</sup>

(8) ... the Kimek (*Kīmāk*) ... a people without villages or houses, who possess forests, woods, water, and pastures [*kalā'*]; they have cattle [*baqar*] and sheep in plenty, but no camels, ... They also have no salt, sometimes a merchant brings salt to them, then they buy a maund [*manā*] of salt from him (in exchange) for furs [*farw*] and sables [*samūr*]. Their food in summer is mare's milk [*laban ar-rimāk*], and in winter jerked meat [*al-luḥūm al-muqaddada*]. (Ṭāhir Marvazī, *Kitāb ṭabā'i' al-hayawān*, Arabic, early 12th century)<sup>42</sup>

Another major source that is often assumed to contain the word *qumız*—but does not—is the *The Secret History of the Mongols* (13th century), the earliest and most important literary monument of the Mongol-speaking people, written in Middle Mongol with Chinese characters. This notion might have been reinforced by the fact that some modern translations—including Igor de Rachlewitz's authoritative English translation—use the word “kumis” in the passages that refer to fermented mare's milk. I have checked all instances of kumis, comparing Igor de Rachewiltz's English translation (2015) with Ernst Haenisch's text edition (1937), glossary (1939), and German translation (1948). The word that is exclusively used for “fermented mare's milk” in the text (about five times) is Middle Mongol *esüg*.<sup>43</sup> Haenisch (1937) has translated *esüg*

41 Persian text: Kuun Géza, “Gurdēzi a Törököröl II: Khaladsok és Kimakok,” *Keleti szemle: közlemények az ural-altaji nép- és nyelvtudomány köréből* (Budapest, 1901), 2:168-181, here: 174. The translation is mine.

42 Vladimir Minorsky, ed. and tr., *Sharaf Al Zamān Ṭāhir Marvazī on China, the Turks and India* (London: The Royal Asiatic Society, 1942), 19-20, no. 7 (Arabic text), 32, no. 7. (English translation). I edited Minorsky's inexact translation “... no salt, except what maybe imported by merchants, who for a maund of it obtain a fox and a sable skin” for *wa-rubbamā ḥamala at-tājir ilayhim al-milḥ fa-yuštārā minhu manā milḥin bi-farwin wa-samūrin*.

43 Igor de Rachewiltz, *The Secret History of the Mongols: A Mongolian Epic Chronicle of the Thirteenth Century*, Shorter version ed. John C. Street (University of Wisconsin–Madison, 2015; Books and Monographs, Book 4). <http://cedar.wvu.edu/cedarbooks/4>; chapter 1, §28 and §31; chapter 2, §85; chapter 4, §145. Erich Haenisch, *Manghol un niuca tobca'an (Yüan-ch'ao pi-shi): Die Geheime*

as “Pferdemilch, Stutenmilch” (horse milk, mare’s milk) which is in a way less misleading than the translation “kumis” but does not take into account that *esüg* literally means “fermented, soured.” Francis Woodman Cleaves (1982) has translated *esüg* as “mare’s milch (!)” and “sour milch (!).”<sup>44</sup> Middle Mongol *esüg* is a regularly derived form from the Common Mongolic verbal base \**es-* “to ferment (intr.), turn sour,” attested in Written (Literary) Mongol *is-* *idem* (Lessing also quotes *isügsen sün* “milk which has turned sour”), Khalkha *is-*/*es-*, and other modern Mongol languages. A Khalkha dictionary lists the following historical and modern forms for “fermented horse milk” as synonyms: *ösög* (obsolete) ~ *eseg* (obsolete; also used as an adjective: *eseg undaa* “a soured or fermented drink”) ~ *airag*.<sup>45</sup>

However, the impression that the medieval Mongols used the word *qumız* for “fermented mare’s milk” is certainly mostly owed to William of Rubruck’s invaluable Latin travel account. Willem van Ruysbroeck (d. around 1270), a Flemish Franciscan monk, undertook a personal mission to the Mongol capital of Karakorum on the Orkhon River to promote the Mongol’s conversion to Christianity. In the early 1250s he passed through the Kipchak Steppes—the northwestern part of the Mongol Empire a.k.a. the state of the Golden Horde—starting out in the grasslands of southern Ukraine. That is probably where Rubruck was first acquainted with the product and the name *qumız*—through Kipchak Turkic speakers. He also uses Turkic names for two other

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*Geschichte der Mongolen* [Text edition] (Leipzig: O. Harrassowitz, 1937); Erich Haenisch, *Wörterbuch zu Manghol un Niuca Tobca'an* (Yüan-ch'ao pi-shi): *Geheime Geschichte der Mongolen* [Glossary] (Leipzig: Harrassowitz, 1939), 46 (*esuk*); Erich Haenisch, *Die Geheime Geschichte der Mongolen* [German translation] (2. verb. Aufl., Leipzig: O. Harrassowitz, 1948).

<sup>44</sup> Francis Woodman Cleaves, *The Secret History of the Mongols* (Cambridge, Mass.; London, England: published for the Harvard-Yenching Institute by Harvard University Press, 1982), p. 7, §31 (mare’s milch); p. 28, §85 (“sour [mare’s] milch” with footnote “kumis”).

<sup>45</sup> Hans Nugteren, “Mongolic Phonology in the Gansu-Qinghai Languages” (PhD diss., Universiteit Leiden, 2011), 376, [https://www.lotpublications.nl/Documents/289\\_fulltext.pdf](https://www.lotpublications.nl/Documents/289_fulltext.pdf). Nugteren, who missed the *Secret History* data *esüg*, has reconstructed Common Mongolic \**is-*. Ferdinand D. Lessing, *Mongolian-English Dictionary*, Corrected Re-Printing (Bloomington, Indiana: The Mongolia Society, Inc., 1982), 335, 416. *Mongol tol'* (Mongol ulsyn Shinjlekh ukhaany Akademi, 2016), [www.mongololi.mn](http://www.mongololi.mn). Many thanks go to Mongolist-linguist Benjamin Brosig who generously and patiently helped me with my Mongolic questions.

dairy products: “*grut*” (*qurut*), “dried curd,”<sup>46</sup> said to be made “from cow’s milk” and consumed in the winter “when they are short of milk”; and “*airam*” (*ayran*), also made “from cow’s milk” and tasting “extremely sour.” Rubruck gives a detailed description of the preparation, fermentation process and taste of “*comos*—namely, mare’s milk” (*qumuz*) which “stings the tongue like *râpé* wine,” and the superior “*caracomos*—that is, black *comos*” (*qara qumuz*).<sup>47</sup> On the other hand, Mongolist Christopher P. Atwood confirmed (personal communication, September 13, 2023) that he has never encountered the word *qumuz* used in a historical Mongolian text. In addition to Middle Mongolian *esüg*, the Mongol words *čege*, modern *tsege*: (in classical Mongolian and most modern Mongolic dialects), and *ayray*, modern *airag* (in Khalkha dialect) are used for fermented mare’s milk.<sup>48</sup>

Similarly, Chinese sources<sup>49</sup> never give phonetic transcriptions of the Turkic word *qumuz*, but they use various Chinese words—some of them going back to the 2nd century BCE. Paul D. Buell and E. N. Anderson have stated that “[Kumis] was extremely popular in North, especially North-west China from Wei through Tang [around 400 BCE to 900 CE]. Countless poems refer to it,

46 Jackson and Morgan, *The Mission of Friar William of Rubruck*, 82–83. See Doerfer, TMEN 3, no. 1472, p. 458–460: *qurut* “säuerlicher Käse aus getrockneter und kondensierter Milch;” also in the Old Uyghur word list above.

47 Jackson and Morgan, *The Mission of Friar William of Rubruck*, 79, 81–83 (“*comos*” stinging the tongue), 96, 99, 101, 104–105, 132–133, 135, 178–179 (“*caracomos*”, clear or refined mare’s milk; and “*bal*,” honey mead), 191, 209, 222 and 242 (the ritual of sprinkling “*comos*” on “their felt idols” etc.), 254, 264. Jackson and Morgan have clarified that the best manuscripts of Rubruck’s text have correct “*comos*” and not “*cosmos*,” which is apparently a later copyist’s error. The corrupted form “*cosmos*” has gone around the world based on the first Latin edition (Van den Wyngaert 1929) and subsequent English translations. Marco Polo, in the second half of the 13th century, records “*kemis*” for *qumuz* (Jackson and Morgan, *The Mission of Friar William of Rubruck*, 76–77).

48 For (Western Mongolic) Kalmyk cf. G. J. Ramstedt, *Kalmückisches Wörterbuch* (Helsinki: Suomalais-Ugrilainen Seura, 1935), p. 26: *airag* “kumis from cow’s milk”; p. 231: *kimr* “kumis diluted with water,” and *kimra:n* “boiled cow’s milk diluted with water”; p. 244: *kö:rtseg* “old kumis with fresh cow’s milk, milk mixed with kumis”; p. 438: *čige:n* “kumis”; p. 443: *čidmeg* ~ *tsidmeg* “kumis with water.”

49 This whole paragraph on fermented mare’s milk (and related dairy products) in Chinese sources is almost completely based on information generously shared with me by Christopher P. Atwood (personal communication, September 13 and 17, 2023). Again, many thanks.

and Chinese from the Yangtse valley were fond of teasing Northerners about this 'barbarian' custom."<sup>50</sup> Chinese words that were used for fermented mare's (or cow's) milk are: 潼酪 *donglao* "fermented mare's milk," lit. milk-kumis (see above); 酪 *lao* "sour milk, curds, kumis (from mare's or cow's milk)" (see above); 醍醐 *tihu* "clear kumis; clarified butter"; 馬孌子 *ma naizi*, or just 馬孌 *ma nai*, both lit. horse milk, 黑馬孌 *hei manai*, "black horse milk"; or 馬乳 *ma ru* lit. horse milk—the first three have been described as borrowed Xiongnu words by Pulleyblank 1962 (see fn 11, above).<sup>51</sup> In contrast, the Middle Mongol word *ayiray* (modern *airag*) "fermented mare's milk" is actually first attested in phonetic transcriptions in two Mongol-era Chinese sources from the 14th century, in both cases glossed and explained as "camel's milk." Hu Sihui, a court nutritionist of the Chinese Mongol Empire and supposedly of Turkic linguistic background, mentions in his illustrated dietary manual and cookbook *Yinshan zhengyao* among the foods in the "camel" category: "Camel's Milk 駝乳 *tuoru*, (Commonly called 愛刺 *aila* [i.e. *ayirag*])<sup>52</sup> is warming by nature and sweetish in flavor. It supplements the center and augments *qi*. It strengthens joint and bone. It renders a person free from hunger."<sup>53</sup> The same dietetic source says, "Mare's Milk 馬乳 *ma ru* is chilling by nature and sweetish in flavor. It controls thirst and regulates heat. There are three grades: (one kind is called *Chige'en*

50 Paul D. Buell, E. N. Anderson, and Charles Perry, *A Soup for the Qan: Chinese Dietary Medicine of the Mongol Era as Seen in Hu Sihui's Yinshan Zhengyao*, 2nd rev. and expanded ed. (Leiden: Brill, 2010), 503, fn 50.

51 E. G. Pulleyblank, "The Consonantal System," 250-252 (*tung*, i.e. *dong*, "milk of cows and mares," and *tung-lao*, i.e. *donglao*), 253-254 (*lao*), 255 (*t'i-hu*, i.e. *tihu*); Christopher P. Atwood, with Lynn Struve, trans., *The Rise of the Mongols: Five Chinese Sources* (Indianapolis: Hackett Publishing Company, 2021), 119: "A Sketch of the Black Tatars," by Peng Daya and Xu Ting of the Southern Song" [13th century]: "mare's milk" and "black horse's milk"—the words in the Chinese original (*ma nai(zi)* and *hei manai*) were supplied by the translator Christopher P. Atwood.

52 Chinese *aila* 愛刺 can only transcribe Mong. *ayirag* and not (potential) Turkic *ayran*. In early Mandarin, a syllable-final *-q* was dropped, whereas a syllable-final *-n* in a foreign word would be expressed in the transcription using a different character. I want to thank Sinologist Laura Skosey for providing a more literal translation (than the one in Buell's edition) of this (and a later) passage, and adding the Chinese characters from the facsimile.

53 Buell et al., *A Soup for the Qan*, 435 (Chinese text) and 504 (English translation); Herbert Franke, "Additional Notes on Non-Chinese Terms in the Yüan Imperial Dietary Compendium Yin-Shan Cheng-Yao," *Zentralasiatische Studien* 4 (1970): 8.

(Atwood corrected Buell’s Mongolian reconstruction to: *śinggen*, i.e. smooth liquid), one is called *Qongqor* (Atwood: *qongyor*, i.e. yellow-bay colored), and one is called \**Caqa’an* (Atwood: *čong’ur*, i.e., lumpy). *Chige’en* (recte: *Śinggen*) is considered the best.”<sup>54</sup> A different, technical Chinese transcription for Mongol *ayıraq* is found in the *Huayi yiyu*, the “Sino-Barbarian Glossaries”: 愛亦丕刺黑 *ayıraq*, again with the gloss “camel’s milk.”<sup>55</sup> Apparently, over the centuries and across the Transeurasian steppes including Mongolia and China, there was neither a clearly defined product “fermented horse milk,” nor just one name for it. Instead there were many terms or ad hoc nomenclature for “(fermented) dairy drinks,” in Chinese, Mongolic, Sogdian, and Turkic. Semantic fluidity and overlap between fermented dairy drinks like “fermented horse or camel’s milk; sour milk, buttermilk, yogurt (from a cow, sheep, or horse)” is commonly observed.<sup>56</sup> The Turkic word *qımız* is explicitly defined as “fermented horse milk” by Maḥmūd al-Kāšyarī in the second half of the 11th century, when it starts to appear in written sources. Similar to Mong. *eśüg* “(something) fermented, a fermented (drink), fermented (horse milk),” Turkic might have had another descriptive designation prior to the usage of *qımız*, like lit. “sour

54 Buell et al., *A Soup for the Qan*, 434 (Chinese text) and 503 (English translation).

55 Antoine Mostaert, Igor de Rachewiltz, and Anthony Schönbaum, *Le matériel Mongol du Houa i i in de Houng-ou (1389)* (Bruxelles, parc du Cinquanteenaire 10: Institut belge des hautes études chinoises, 1977), 38.

56 Compare the historical cognates of Turkish *ayran* “salted yogurt drink diluted with water” and Khalkha *airag* “fermented mare’s milk”: Karakhanid Turkic *ayran* (11th century) = Arabic *maḥīd* “buttermilk” (DLT, 1: fol. 73); Rubruck (13th century) *airam* “extremely sour dairy beverage from cow’s milk” (see f. 47); “Mongolian” (*Rasulid Hexaglot*, 14th century) *ayran qımız* = Arabic *laban ar-rimāk* “(fermented) mare’s milk” (Tibor Halasi-Kun and Peter B. Golden, *The King’s Dictionary: the Rasūlid Hexaglot--Fourteenth Century Vocabularies in Arabic, Persian, Turkic, Greek, Armenian, and Mongol* (Brill, 2000), 81, fol. 187); Middle Mongol *ayıraq* (14th century) “camel’s milk” (see fn 52 and 55, above). The etymology of and relationship between Turkic *ayran* and Mongolic *airag* is contested. Róna-Tas has derived Hungarian *író* “buttermilk” from hypothetical West Old Turkic \**ıray* < \**ayray* (WOT was spoken between the 6th century and the 13th century west of the Ural range and the Ural river), and considers WOT \**ayray* the equivalent of East Old Turkic *ayran* (András Róna-Tas, Árpád Berta, and László Károly, *West Old Turkic: Turkic Loanwords in Hungarian* (Wiesbaden: Harrassowitz, 2011), 464–470; András Róna-Tas, “Old Turkic, West,” in *Encyclopedia of Turkic Languages and Linguistics Online*, general editor: Lars Johanson, first published online: 2023, [http://dx.doi.org.proxy.uchicago.edu/10.1163/2667-3029\\_ETLO\\_SIM\\_032214](http://dx.doi.org.proxy.uchicago.edu/10.1163/2667-3029_ETLO_SIM_032214)).

milk" or "(sour) horse milk," or just "horse milk."

### Hitherto proposed Turkic etymologies for the word *qımız*

Earlier attempts at explaining *qımız* as an inherited Turkic word have traditionally split it up into a hypothetical verbal stem *\*qım-* and a suffix *-ız*. A deverbal nominal suffix *-(X)z* does exist in Old Turkic. It is "added to both transitive and, more commonly intransitive bases and denotes the object of the verb in the first case but its subject in the second."<sup>57</sup> However, a verbal stem *\*qım-* is not attested in any historical or modern Turkic language.<sup>58</sup> In the absence of an attested verbal stem *\*qım-*, the Turkic verbal form *qımilda-* has been proposed as potentially sharing a verbal base with *qımız*. Turkish *kımıl-da-* means "to move (restlessly) (intr.), fidget," and is etymologically not related to *qımız*. It is derived from the nominal expressive (or onomatopoeic) element *kımıl* which describes a "slight, restless movement" and is an extension of the nominal expressive element *\*kım*. Turkish has numerous word groups of this formation: a basic monosyllabic sound element that is rarely used by itself, describing a sound or a movement (*güm* ~ *\*güp* "bang"; *pat* "boom"; *\*gür* "rumble") is turned into an adverb a) by reduplicating it (*güm güm*; *pat pat*; *gür gür*), or b) by extending it through the addition of the syllable /ıl/ ~ /ır/ before reduplicating it (*gümbür gümbür* ~ *güpür güpür*; *patır patır*; *gürül gürül*). The simple (*gür*), or more often the extended sound element (*gümbür*), can be turned into a verb by adding the regular denominal verbal suffixes {+dA-}, {+IA-}, or {+A-} (*gümbürde-*; *patla-*, *patırda-*; *gürle-*). The extended sound element can be turned into a noun by adding the deverbal nominal suffix {-DI} which is an irregular development of Old Turkic {-IndI}<sup>59</sup> (*gümbürtü*; *patırtı*; *gürültü*). Turkish *kımıl-da-* belongs to the same paradigm and has many cognates (with the phonetic *m* ~ *p/b* and *r* ~ *l* variation) in historical and modern Turkic languages, based on the extension *\*qımır* ~ *\*qıpr* ~ *qımıl* of the expressive nomi-

57 Marcel Erdal, *Old Turkic Word Formation: A Functional Approach to the Lexicon* (Wiesbaden: O. Harrassowitz, 1991), 1:323-327.

58 Vámbéry 1878 was the first to link Turkic *qımız* to the Turkic ghost word *\*qım-* "leicht bewegen, rühren [to move slightly (tr.), to stir]" (Ármin Vámbéry, *Etymologisches Wörterbuch der turko-tatarischen Sprachen* (Leipzig: F. A. Brockhaus, 1878), 91-92, no. 96, followed by Ramstedt 1935, "*qym-* umrühren [to stir]," and others (Ramstedt, *Kalmückisches Wörterbuch*, 231, "kimr").

59 Erdal, *Old Turkic Word Formation*, 1:339-340.



nal element *\*qim* ~ *\*qip*, all pertaining to “a sort of continuous (often slow or slight) movement”: Old Uyghur *qimra-* (< *\*qimir+a-*) “to move slowly” and *kimurašur* “moving, exciting”; Anatolian dialects *gimra-/gimraš-/kimraš-* and *kimran-*; OAT *qimurtı* > Turkish *kimultı* ~ *kıprıtı*, Azeri *qimultı*; Turkish *kimil kimil*; Turkish *kimulda(n)-* ~ *kıprılda(n)-* (< *kimil/\*kıpır+da-*); Azeri *qimıldan-*; Türkmén *gymylda-*; Bashkir *qimulda-* ~ *qıbırla-* (< *\*qıpır+la-*); Kyrgyz *kıymıldatkič* (< *qimil+da-t-*) “engine, motor (what sets sth. in motion).”<sup>60</sup> As for *qımız*, apart from the vague semantic connection between *kumis* and “moving restlessly (intrans.),” a deverbal nominal suffix such as {-Iz} cannot be added to an expressive nominal base *\*qim*.

Unable to establish an internal Turkic etymology for *qımız*, and disregarding the possibility that *qımız* might be a loanword into Turkic, scholars have linked it to potential “cognates” in the Altaic or Transeurasian languages.<sup>61</sup> The *Etymological Dictionary of the Altaic Languages* = EDAL (2003) has even provided Turkic *qımız* with a reconstructed “Proto Turkic” form *\*qumır*, apparently based on (Western Mongolic) Kalmyk *kimr* (see below).<sup>62</sup> *Qımız* (with minor regular phonological variations) is attested in all groups of the modern Turkic languages. Some of these may be inner-Turkic loans, which is definitely the case for the non-common Turkic Chuvash form. The meanings “fermented mare’s (sometimes camel’s) milk (or other fermented or non-fermented dairy drinks),” as well as “sour” (in Azerbaijani and Tatar dialects), and “sorrel (*Rumex acetosa*)” (in Tatar dialects) have been attested in the 20th century. (Oghur Turkic) Chuvash *qimus* (Қӓмӓс) is not a regular cognate of common Turkic *qımız*, that is, it is not an inherited word, but apparently a loan from a (Kipchak) Turkic contact language. Since Chuvash is a *r*-language—as opposed

60 For the Turkish forms, the expressive formation and the nominal suffix {-DI} see Andreas Tietze, *Tarihî ve Etimolojik Türkiye Türkçesi Lugati* (Ankara: Türkiye Bilimler Akademisi, 2016–2020), esp. the entries “ağartı,” “akıntı,” “anırtı,” and “çat;” for OAT *qimurtı* see, İsmail Hakkı Aksoyak, *Tebdiz: Tarih ve Edebiyat Metinleri Bağlımlı Dizin ve İşlevsel Sözlüğü* (2007–), <http://www.tebdiz.com/>.

61 *Étimologičeskii slovar’ tiurkskikh iazykov* = EstJa, ed. L. S. Levitskaia, A.V. Dybo, V.I. Rassadin (Moskva: Nauka 2000), [vol. 6] “Қ,” 215–216, [https://altaica.ru/LIBRARY/e\\_edtl.php](https://altaica.ru/LIBRARY/e_edtl.php).

62 Sergei Starostin, Anna Dybo, and Oleg Mudrak, *Etymological Dictionary of the Altaic Languages* = EDAL (Leiden; Boston: Brill, 2003), part 1: 641, see entry “[Proto-Altaic] *\*kâmo* boiled substance, alcohol” – *\*kâmo* is a speculatively reconstructed form based on genetically unrelated, reconstructed Proto Tungusic, Proto Mongolic, Proto Turkic, and Proto Japanese forms.

to Common Turkic, i.e. the rest of the Turkic languages, which are *z*-languages—the regular Chuvash cognate would have been \**qımur*. In early 20th century Western Mongolic Kalmyk, *kimr* “kumis diluted with water” and *kimra:n* “boiled cow’s milk diluted with water” are attested (both with *ki*- and not *qi*-) among five Kalmyk words for “kumis” or other “dairy beverages (fermented or not).”<sup>63</sup> The Kalmyk word *kimr* has apparently served as the basis for EDAL’s “Proto Turkic” reconstruction (\**qımur*), suggesting an often observed Common Turkic ~ Oghur Turkic ~ Mongolic sound correspondence *z* ~ *r* ~ *r*, as in (assumed) *qımız* ~ \**qımur* ~ *kimr*. *Kimr* is only attested in modern Kalmyk, but Written Mongolian *kirma* and *kiram* (Khalkha *hyaram* *хярәм*) “boiled milk diluted with water” are apparently metathetic variants of this word.<sup>64</sup> Parallels of Kalmyk *kimra:n* are attested as *qımran/qımuran* in mid-15th century Old Anatolian Turkish, in modern Kazakh, Kyrgyz, and Tuvan. Semih Tezcan (2001) has shown that Yazıcıoğlu ‘Alī’s *History of the Anatolian Seljuks* is the only known historical source in Old Anatolian Turkish/Ottoman in which *qımran* is attested. From the Old Anatolian Turkish passages it can only be deduced that *qımran* is a sort of dairy beverage, though the exact meaning is unclear.<sup>65</sup> In modern dictionaries, Kazakh *qımran* ~ *qımuran* is glossed as “boiled cow’s milk diluted with water” and “fermented camel’s milk”; Kyrgyz *qımran* ~ *qımuran* “boiled yogurt or milk diluted with water”; Tuvan *hımura:n* “thin or watery milk tea (brewed with tea leaves of lower quality, pressed in a block).”<sup>66</sup> The basic meaning of *qımran* ~ *qımuran* in the modern languages is apparently “a dairy beverage (milk, yogurt, kumis), diluted with water.” Its base and formation is obscure. Mongolist Christopher Atwood pointed out that Kalmyk *kimr* is a highly reduced form, and that it cannot be the base of Turkic *qımran*. Instead, Kalmyk *kimr* most likely goes back to Turkic *qımran*: Turkic *qımran* → Mong. *kimran* (attested in Kalmyk; in Mongolian analyzed with an unstable *n* stem as *kimra(n)*) > Mong. \**kimra* (indirectly attested in the metathetic variant Written Mongolian

63 Ramstedt, *Kalmückisches Wörterbuch*, 231. See fn 48, above.

64 Lessing, *Mongolian-English Dictionary*, 470.

65 Tezcan, “Kimran, alkolsüz bir içki,” 349-358, for an example of *qımran* in Yazıcıoğlu ‘Alī’s Old Anatolian Turkish text see fn 22, above.

66 Tezcan, “Kimran, alkolsüz bir içki,” 354-355; see also EstJa, 215-216, “qımız.”

*kirma*)<sup>67</sup> > Kalmyk *kimr* (reduced from \**kimra*). I agree with Doerfer, Tezcan and Atwood in that Kalmyk *kimr/kimran* and Turkic *qumran* are not related to *qımız*.<sup>68</sup>

### 11th century Karakhanid Turkic data on *qımız* and *qor* (*Qutad̡u Bilig* and Maḥmūd al-Kāšyārī)

After Gardīzī's Persian history, 1050, the first inner-Turkic attestation of the word *qımız* comes from the *Qutad̡u Bilig* (lit. Wisdom that provides royal glory or fortune), written in 1069–70 by Yūsuf Ḥāšṣ Ḥājib from Balasagun. The *Qutad̡u Bilig* is a rhymed mirror for princes, that combines Turkic Inner Asian and Arabo-Persian Islamic wisdom traditions. Robert Dankoff has suggested that it might be based on a direct Persian model due to the large number of Persian calques.<sup>69</sup> *Qımız* is mentioned next to *süt*, “milk,” in an enumeration of beneficial products that cattle breeders (*igdiščiler*), “the masters of all livestock (*yılqı*),” provide for the people (no. 9). Naturally, there is no definition of *qımız*, or any indication what animal the milk (*süt*) or the “dried curd” (*qurut*) came from—Kāšyārī mentions *qurut* from sheep milk,<sup>70</sup> Rubruck from cow's milk (see above). Neither does it indicate if the milk was consumed raw (which is not likely) or rather in a processed form. (Note that the MS. Fergana of *Qutad̡u Bilig*, copied no earlier than the 13th century, clearly shows the spelling قميميز QYMYZ *qımız*. Kāšyārī's *Dīwān Luḡāt at-Türk*, copied in 1266, spells it with vowel marks قَمِيز QMIZ *qımız*. Later sources usually spell قَمِيز QMYZ *qımız*). *Qutad̡u Bilig* also records the word *qor*, “ferment, leaven,” i.e. the starter cultures of kumis and yogurt (see Kāšyārī below), although in a metaphorical sense, in a passage that introduces a Turkish proverb (*türkçe meşel*) (no. 10).

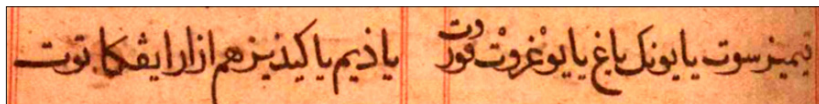
67 For the potential *-mr- ~ -rm-* methatesis cf. many cases of *-pr- ~ -rp-* methatesis in Turkic, e.g. Turkish *kirpik* ~ Anatolian dialects *kiprik* “eye lash(es).” For methatesis in Mongolic see Nugteren, “Mongolic Phonology,” 257–260.

68 Doerfer, TMEN, 3:515–516; Tezcan, “Kimran, alkolsüz bir içki,” 356; Christopher Atwood (personal communication, November 6, 2023). An often cited Mong. verbal stem \**kimu-* (Ramstedt, *Kalmückisches Wörterbuch*, 231, “kimr”) or \**kimura-* (Talāt Tekin, “Zetacism and Sigmatism in Proto-Turkic,” *Acta Orientalia Academiae Scientiarum Hungaricae* 22, no. 1 (1969): 51–80, here: 61; EstJa, 215–216) does not exist.

69 Robert Dankoff, ed., *Wisdom of Royal Glory (Kutad̡u Bilig): A Turko-Islamic Mirror for Princes / Yūsuf Khāšṣ Ḥājib* (Chicago: University of Chicago Press, 1983), 9–10.

70 DLT, 1: fol. 271, “suḡ-.”

(9) (Turkic text): *qumız sūt yā yüng yağ yā yoğrut qurut* || *yađım yā kidiz hem azar evge tut*  
 (English translation): “*Qumız*, milk (*sūt*), wool, and butter (*yağ*), yogurt (*yoğrut*) and dried curd (*qurut*) || also carpets and felts—take a little of each for your home.”  
 (*Qutađyu Bilig*, Chapter 59; MS. Fergana, fol. 161a)<sup>71</sup>



(10) (Turkic text): *nēgü tēr ešitgil sinamiş qarı* || *sinamiş qarılar sözi söz qorı*  
 (English translation): “Listen (to what) the experienced ancients say || The sayings (*söz*) of the experienced ancients are the leaven of words (*söz qorı*),” i.e., when sayings (proverbs) are added to speech (like the starter culture, *qor*, to milk), they make words superior (just as *qor* turns milk into kumis) (*Qutađyu Bilig*, Chapter 16)<sup>72</sup>

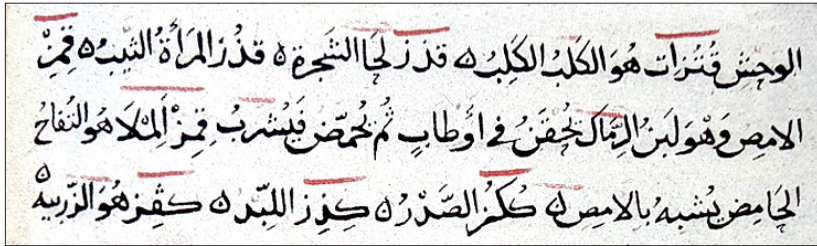
As is often the case, we owe the most comprehensive inner-Turkic information on *qumız* to Maḥmūd al-Kāšğarī. In his indispensable *Compendium of the Turkic Dialects* (*Dīwān Luğāt at-Türk*, completed in 469/1077) Kāšğarī refers to “kumis” (using the Turkic words *qumız*, *sūt*, and the Arabic gloss *āmiş*), and its fermentation process in four separate entries (no. 11, no. 12, no. 13, no. 14). I am referencing the complete Arabic entries here to demonstrate what Arabic vocabulary Kāšğarī employed to gloss *qumız* (i.e. Arabic *āmiş*) and describe the fermentation process for his Arabic speaking readers. Since *qumız* would have been a foreign cultural item for Arabic speakers, it is improbable that Arabic *āmiş* was an exact equivalent for *qumız*, but rather shared some characteristics with it. Kāšğarī had probably studied Arabic within the framework of a classical medieval Islamic education, including Koranic studies, hadith studies, theology, Arabic grammar, etc. However, since the territory of the Karakhanid state had been part of the Persianate cultural world for centuries, Kāšğarī had

71 Dankoff, *Wisdom of Royal Glory*, 184 (chapter 59, line 4442); Dankoff has translated *qurut* as “cheese.” *Qutađyu Bilig* Facsimile: Yusuf Has Hacib, *Kutađgu Bilig*, [vol.] B: *Fergana Nüşası, Taşkent Davlat Şarkşünaslık İnstitutı Huzuridegi Abu Rayhan Beruniy Namli Şark Kolyazmaları Merkezi 1809. nr.* (Ankara: Türk Dil Kurumu, 2015), fol. 161a.

72 Dankoff, *Wisdom of Royal Glory*, 63 (chapter 16, line 723). I chose a different translation from Dankoff’s “The words of an ancient and experienced man are wisdom’s leaven [*söz qorı*]—listen: ...” Note the positive connotation of “leaven” here, as opposed to biblical proverbs where “leaven” usually has a negative connotation, e.g. “A little leaven leavens the whole lump of dough” (Galatians 5:9), where “leaven” symbolizes evil.

certainly had more direct contact with Persian speakers. When translating Turkic phrases into Arabic, Kāšyarī could hardly have relied on bilingual dictionaries since Persian-Arabic lexicography started only around the same time when Kāšyarī was active.<sup>73</sup> Arabic-Turkic and Persian-Turkic lexicography did not start before the 14th century. However, monolingual Arabic lexicographical sources did exist since the 8th century. The earliest ones are from the Eastern Islamic world, including Iraq, Khorasan and Transoxania. Scholars of Arabic-Persian, Persian, and also Turkic (al-Jawharī, d. c. 1010) descent played an important role in early Arabic lexicography. In fact, Kāšyarī mentions the early Arabic dictionary *Kitāb al-ʿAyn* (completed around 800 by al-Layṭ from Khorasan) in his preface (DLT, 1:71, fol. 4–5).

قِيمِزُ الْأَمِصِّ وَهُوَ لَبَنُ الرِّمَاقِ يُحَقَّنُ فِي أَوْطَابٍ ثُمَّ يُحَمِّضُ فَيُشْرَبُ قِيمِزُ الْجَلَاءِ هُوَ النَّفَّاحُ الْحَامِضُ يُشْبِهُ (11)  
بِالْأَمِصِّ

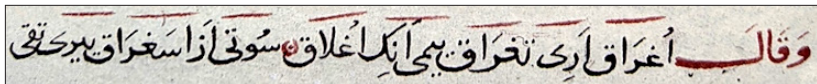


(Text): *qımız al-ʿāmiš wahwa labanu r-rimāk yuḥqanu fi awṭābin tumma yuḥammadu fa-yuṣrab qımız almila huwa at-tuffāhu l-hāmiḍu yuṣbiḥu bi-l-ʿāmiš* (DLT, facsimile, fol. 184)

(English translation): “[Turkic] *Qımız* is [Arabic] *āmiš*, that is, mares’ milk (*laban ar-rimāk*) which is poured into skins (*awṭāb*), then it is fermented (*yuḥammad*) and drunk.

[Turkic] *qımız almila*: That is the sour (*hāmiḍ*) apple that resembles *āmiš*.”

(12) [...] أغراق أرى تغراق ييمي أنك أغلاق \* سوتى ازا سغراق ييرى تقى أغلاق [...] (12)



(Text): *tıyraq er ar-rajulu l-jald wa-qāla*

*oıyraq eri tıyraq yēmi any oıyraq*

*süti üze sayraq yēri taqı ayıraq*

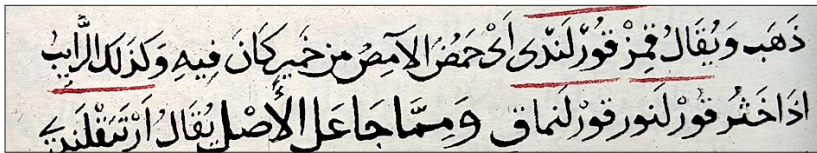
73 See John R. Perry, “Dictionaries ii Arabic-Persian dictionaries,” *Encyclopaedia Iranica* (1995), <https://www.iranicaonline.org/articles/dictionaries#pt2>.

*yaqūlu bi-ʿanna qabīla[ta]* (MS err. *qatīla*) *uḡraq jilādun* (MS err. *jalādun*) *wa-ṭaʿamuhumu l-jidāʿu wa-l-qaʿbu abadan mawḏūʿun ʿalā āmiṣihim wa-maʿa ḏālik arḏuhum qafr* (MS err. *qufr*) *yaṣifuhum bi-l-jūdi wa-š-šajāʿati* (DLT, facsimile, fol. 235–236)

(English translation): “**uḡraq er** is a sturdy man. They have said: [Vers:] **oḡraq eri ... taqı aylaq**. They say, that the tribe of Oḡraq are sturdy | their food is kid (i.e., young goat meat) | their cups (*qaʿb*) are always filled with kumis (*āmiṣ*)<sup>74</sup> | though their land is bare withal. They describe them as generous and brave.”

Note that Dankoff and Kelly’s English translation is based on Maḥmūd al-Kāšġarī’s Arabic rendering of the Turkic verse; a more literal translation of the Turkic would be:  
The Oḡraq men are tough                    their food is kid (young goat meat)  
their cups are (filled) with milk (*sūt*)                    and/but their land is isolated

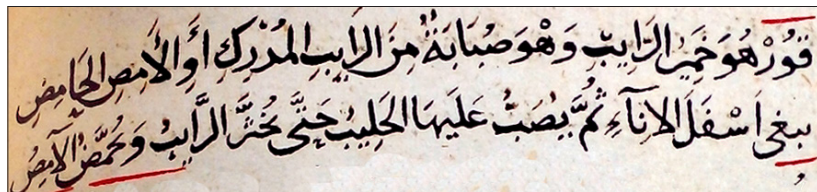
و يُقَالُ قِمَزُ قُوزَلْنَدَى أَيْ خَمْضُ الْأَمِضِ مِنْ حَمِيرٍ كَانَ فِيهِ وَكَذَلِكَ الرَّايِبُ إِذَا خُتِرَ قُوزَلْنُورُ قُوزَلْنَمَقِ (13)



(Arabic text): *wa-yuqālu qımız qorlandı ay hamuḏa l-ʿāmiṣu min ḥamirin kāna fihi wa-kādālika r-rāʿibu idā ḥatūra qorlanur qorlanmaq* (DLT, facsimile, fol. 531)

(English translation): “They say: **qımız qorlandı**, that means, the kumis (*āmiṣ*) is fermented/has turned sour (*hamuḏa*) through a ferment/starter culture (*ḥamīr*) that was in it. The same for yogurt (*rāʿib*) when it thickens (*ḥatūra*). **qorlanur qorlanmaq** [it ferments, to ferment].”

قُوزُ هُوَ حَمِيرٌ الرَّايِبِ وَ ضَبَابَةٌ مِنَ الرَّايِبِ الْمُدْرِكِ أَوْ الْأَمِضِ الْحَامِضِ بَعَى أَسْفَلَ الْإِنَاءِ ثُمَّ يُصَبُّ عَلَيْهَا  
الْحَلِيبُ حَتَّى يُخْتَرُ الرَّايِبُ وَ يُحْمَضُ الْأَمِضُ (14)



74 I changed Dankoff and Kelly’s literal translation from Arabic *wa-l-qaʿbu abadan mawḏūʿun ʿalā āmiṣihim* (“there is ever a cup over their koumiss” for Turkic *süti üze saḡraq*, DLT, 1:350) according to the Turkic phrase. The Old Turkic postposition *üze* “on, upon” can also have instrumental meaning (Wilkins, HWAU, “üzä”); see the similar Old Uyghur phrase *ädgü yezgü üzä açınıp tođgurup ...* “they care for and feed [the creatures in the animal existence] with good food(?)” (Klaus Röhrborn, *Uigurisches Wörterbuch* (Band 1: Teil 1, 2010), <https://www.woerterbuchnetz.de/UWB>, “açın-.”

(Arabic text): *qor huwa ḥamīru r-rāʾibi wahwa ṣubābatun mina r-rāʾibi l-mudriki ʾawi l-ʾāmiṣi al-ḥāmiḍi yabqā* (MS err. *yabqā*) ʾaṣfala l-ʾināʾi tumma yuṣabbu ʾalayhā l-ḥalību ḥattā yuḥattara r-rāʾibu wa-yuḥammaḍa l-ʾāmiṣu (DLT, facsimile, fol. 496)

(English translation): “[Turkic] **Qor** is the ferment of yogurt (*ḥamīr ar-rāʾib*). It is the remainder of ripened (i.e. thick) yogurt (*ar-rāʾib al-mudrik*) or of sour kumis (*al-āmiṣ al-ḥāmiḍ*) which remains at the bottom of the container; then, (fresh) milk (*ḥalīb*) is poured over it so that the yogurt (*rāʾib*) will solidify (*yuḥattar*), or the kumis (*āmiṣ*) will become sour/ferment (*yuḥammaḍ*).”

The Turkic word Kāšyārī uses for the process of dairy fermentation is *qorlan-*. *Qorlan-*, “fermenting” describes both the “turning sour” (Ar. *ḥamuḍa*) of kumis; as well as the “thickening or solidification” (Ar. *ḥatura*, *ḡaluza*) of yogurt: *qumız qorlandı* “the kumis has fermented” (no. 13), and *yoğrut qorlandı* “the yogurt has fermented” (DLT, 2: fol. 391). For the thickening and solidification of yogurt, the following Karakhanid Turkic phrases are also used: *yoğrut uđıstı* [lit. the yogurt fell asleep], Ar. *tarawwaba l-labanu wa-ḥatara* “the milk (*laban*) thickened and solidified (i.e., turned into yogurt)” (DLT, 1: fol. 100) and *ol yoğrut uđıttı* [lit. he put yogurt to sleep], “he let the yogurt (*rāʾib*) thicken (*rawwaba*)” (DLT, 1: fol. 112);<sup>75</sup> and *yoğrut qoyuldı* “the yogurt (*rāʾib*) solidified (*ḥatura*)” (DLT, 2: fol. 528). The Turkic word *yoğrut* certainly shares a verbal base with Old Turkic *yoğun* “thick, compact, dense,” and the original literal meaning of *yoğrut* must have been “thickened, solidified.”<sup>76</sup> The nominal base

75 Cf. 16th century Ottoman *yoğurt uyut-*, lit. to make yogurt fall asleep (Aksoy and Dilçin, *Tarama Sözlüğü*, “uyutmak”: sütü mayalayıp yoğurt hâline getirmek, pıhtılaştırıp dondurmak); and Anatolian dialects *yoğurt uyut-* (*Derleme Sözlüğü*, “uyutmak”: yoğurt yapmak için sütü mayalamak). Dankoff and Kelly consistently translate Ar. *rāʾib* as “curdled milk.” I am confident that “yogurt” is the appropriate translation for Kāšyārī’s usage of Ar. *rāʾib* (cf. Arabic *r-w-b* I: “to be, or become thick, or coagulated”). See also DLT, 2: fol. 413, *qat-*, and fol. 517, *suviq* (note that *suviq yoğrut* (Ar. *raṭīyʾatun*, MS err. *raṭīyyatun*, *raqīqun*) “watered down or diluted yogurt,” perfectly describes modern Turkish *ayran*).

76 Cf. Marcel Erdal, OTWF, 1:303 and 313; 2:725, 688. I fully agree with Erdal’s proposal that the original meaning of *yoğur-* “to knead (dough), etc.” was “to condense, thicken, solidify (tr.)” Support for this notion comes from Kāšyārī, who glosses the Turkic phrase *yoğurmuş un suwıstı* [lit. the kneaded (?) flour became watery] with Arabic “the dough (ʾajīn) became sloppy/loose (*istarḥā*) from too much water” (Kāšgarlı Mahmud, *Dīvānū Lūgatiʾt-Türk: Tıpkıbasım/Faksimile* (Ankara: Kültür Bakanlığı, 1990), fol. 319–320). Lane glosses ʾajīn (from ʾajana “to knead, etc.”) with “kneaded; i.e. borne upon with the fist or clinched hand, and so pressed; dough; flour kneaded with water”

of *qorlan-* is *qor*, "ferment, fermenting agent, leaven, yeast" (used metaphorically in *Qutad̄yu Bilig*, no. 10). In biochemical terms *qor* is the microbial starter culture which includes yeasts as well as different lactic acid bacteria. The bacteria acidify the milk by converting the milk sugar to lactic acid; the yeasts turn it into a carbonated and mildly alcoholic drink, i.e., kumis. Kāšyarī describes how a remainder of each batch of the starter cultures (Tu. *qor* ~ Ar. *ḥamīr*) is saved "at the bottom of the container" to be inoculated into the "fresh milk that is poured over it." Erdal (2009) has shown that the word *qor* is copied from a Middle Iranian reflex of Old Iranian *hurā* "mare's milk wine" (most probably from a non-attested Sogdian form which can be reconstructed as \**ḥwr*; or from Middle Persian Pahlavi *hur* "an alcoholic drink; (doubtful meaning:) kumis," and Manichaean Middle Persian *ḥwr /ḥur/* "an intoxicating drink"<sup>77</sup>; cf. Khotanese *hurā* "mare's milk")—including a semantic shift from Iranian "(fermented) mare's milk, kumis" to Turkic "fermenting agent (that produces kumis)." Cognates of Old Turkic (← Middle Iranian) *qor* can still be found in modern Turkic languages of the South Siberian, Kipchak, and Oghuz branch: Khakas *ḥordıñ* "leaven, ferment, yeast, starter culture" (*sıbabaan pozanıñ tübinde ḥordıñ ḥalča* "at the bottom of the unsmoked bottle *ḥordıñ* (i.e. the starter culture) remains"; *ayranıya ḥordıñ kirek* "ayran (i.e. fermented cow's milk in Khakas) needs a starter culture"; *un ačitçañ ḥordıñ* (lit., yeast that sours flour) "sourdough starter"; *ḥumis ḥordii* "starter culture for kumis"<sup>78</sup>; and Bashkir *qur* "yeast." Turkish, on the

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(Edward William Lane, *An Arabic-English Lexicon* (London: Edinburgh: Williams and Norgate, 1863–1893)). *Yoğurmiş un* means "dough (flour made compact by adding water and kneading)" (cf. Khakas *çuraan un* "dough," V. IA. Butanaev, *Khakassko-russkii Istoriko-etnograficheskiı Slovar'* (Abakan: Khakasiia, 1999), 164). For *yoğun* "thick" cf. also Old Uyghur *yoğun aš*, "a thick gruel" (Wilkens, HAUW, "yogun"); and the opposition of *yoğun* "thick" ↔ *ince* "thin" in 14th century Old Anatolian Turkish *boynınuñ ovurından yamı yoğun ola ve başından yamı ince* "the part of the (horse's) neck that is close to the chest should be thick, the part that is close to the head should be thin" (Helga Aneshofer, "Neues zur altanatolisch-türkischen Pferdeterminologie," in "Die Wunder der Schöpfung": *Mensch und Natur in der türksprachigen Welt*, eds. B. Heuer, B. Kellner-Heinkele, C. Schönig (Wiesbaden: Ergon Verlag, 2012), 146).

77 D. N. MacKenzie, *A Concise Pahlavi Dictionary* (London; New York: Oxford University Press, 1971), 45; Durkin-Meisterernst, *Dictionary of Manichaean Texts*, 368.

78 Butanaev, *Khakassko-russkii ... Slovar'*, 201. For Kazakh *qor* and Turkmen *qor* see "What Did the Old Turks Call Fermented Mares' Milk?" 294-296.



other hand, has adopted Pe. *māya* for “ferment, leaven, yeast,” and uses *hamur* (← Arabic *ḥamīr* “dough, leaven”) in the meaning “dough.” Azeri and Turkmen use an Arabic-Persian combination *xəmirmaya*, *hamyрмаya* “yeast.” Thus, we observe busy loan traffic—including some semantic shifts—in the fermentation vocabulary, as well as multiple words for “yeast” in some modern Turkic languages, including copied and indigenous ones. The indigenous ones are based on Turkic *açıt-/acıt-* “to make sour” (e.g. Azeri *acıtma*, *maya*, *xəmirmaya*, or Uzbek *achitqi*, *xamirturush*, etc.).

Kāşyarī does not use derivatives of the Common Turkic root *açı-* “to be sour” for products that turned sour through fermentation—except for vinegar (*ol sirke açitti* “he soured (*ḥammaḍa*) the vinegar”).<sup>79</sup> The adjective *açıy* “sour” (Ar. *ḥāmiḍ*) comes as a qualifier for grapes (*üzüm*), quinces (*avya*),<sup>80</sup> and apples (*almula*). The phrase *açıy almula* (Ar. *at-tuffāḥ al-ḥāmiḍ*) “sour apple” is used in a Turkic proverb: *atası anası açıy almula yəse oyl qızı tışı qamar* “when the father or mother eats a sour apple, the teeth of the son or daughter will be set on edge.” Crucially for my argumentation, Kāşyarī also records *qımız almula* (Ar. *at-tuffāḥ al-ḥāmiḍ*, no. 11)—apparently, a secondary expression for “sour apple,” since the proverbial usage *açıy almula* can be assumed to be more authentic and older. Nevertheless, the basic meaning of *qımız* was apparently perceived as “sour, acidic” in Old Turkic. Some modern Turkic languages still preserve reflexes of the meaning *qımız* “sour”: Azeri dialects *qımız* “sour” (Bu çörəx’ laf qımızdı “This bread was very sour”);<sup>81</sup> Tatar dialects *qımız* “sour”; Anatolian dialects *humzı-/ımsız-* (< \**qımız+ı-*, lit. to become sour) “(for food) to become spoiled or rancid, and taste sour, bitter, or fermented”;<sup>82</sup> as well as Tatar dialects *qımız*,

79 See DLT, 1: fol. 112, “açıt-.”

80 For *açıy* meaning both “sour” (Ar. *ḥāmiḍ*) and “bitter” (Ar. *murr*) see DLT, 2: fol. 415, “süçit-”; for sour grapes see DLT, 1: fol. 100, “açış-“, and fol. 144, “açıysı-;” for sour quinces see DLT, 2: fol. 421, “qamat-.”

81 See *Azərbaycan dilinin dialektoloji lüğəti*, online version, “qımız,” <https://obastan.com/q%C4%B1m%C4%B1z/566273/?l=az>. For Az. *laf* ‘very’ see A. Caferoğlu, “Azerbaycan ve Anadolu Ağızlarındaki Moğolca UNSURLAR,” *Türk Dili Araştırmaları Yıllığı – Belleten*, 2 (1954): 1-10, here: 8-9.

82 Yunus İnanç, “Karaman ve Konya Ağızlarındaki Arapça Kökenli Olduğu Düşünülen Bazı Fiiller,” *Karamanoğlu Mehmetbey Üniversitesi Edebiyat Fakültesi Dergisi* 5, no. 2 (2022): 362-372, here: 368. İnanç is correct in seeing a sort of etymological relationship between Turkish *humzı-* and Arabic *ḥāmiḍ*, but the relationship is more complicated. The direct etymon of *humzı-* is Turkic

Kyrgyz *kimız*, Kazakh *qımızdıq*, Khakas *hımızah* "sorrel (*Rumex acetosa*, German 'Sauerrampfer' – a plant with a distinct sharp, sour taste)."<sup>83</sup>

Maḥmūd al-Kāšyārī glosses Turkic *qımız* with Arabic *āmiṣ*. He describes it as "mare's milk" (Ar. *laban ar-rimāk*), which is poured into skin bags in order to "turn sour/ferment" (Ar. *hamuḍa*) before it is drunk (no. 11 and no. 13). He also uses Arabic *āmiṣ*—denoting "kumis"—in two entries where he does not mention kumis in the Turkic portion at all (no. 12 and no. 14). The authentic Karakhanid Turkic quatrain describing the bravery of the men of the Oğraq tribe (no. 12) is especially interesting: It almost sounds like a literary trope describing the harsh living conditions of pastoral nomads: "Their food is kid (young goat meat), they constantly drink milk (*süt*), and they live in a lonesome place." It reminds us of the passages about the Kimek that we have seen in Persian and Arabic geographical and historical works from the 10th through 12th centuries (see no. 6, no. 7, no. 8). The Karakhanid quatrain does not specify *qımız*, but just contains the word *süt*, "milk." This may be due to poetic constraints concerning the number of syllables and syntactic parallelism (*yemi, süti, yeri*) in the lines. Nevertheless, Kāšyārī translates *süt* directly with *āmiṣ* which is his (personal) Arabic equivalent for kumis. Maybe we can conclude from this that *süt* "milk" in the context of the pastoral-nomadic life primarily meant "horse milk," and specifically "fermented horse milk" to Turkic speakers (note, however, the *Qutadγu Bilig* quote, no. 9, where *qımız* and *süt* are used side by side, and cannot be identical).

### What is the relationship between Turkic *qımız*, Arabic *āmiṣ*/*āmiṣ*, and Middle Persian *hāmīz*?

Erdal has proposed that Ar. *hāmīd* "sour, acidic" is the (indirect) etymon of Turkic *qımız* "fermented mare's milk; sour," with the intermediary Pe. *qamīz*: Arabic *hāmīd* → New Persian *qamīz* (?) → Old Turkic *qımız*.<sup>84</sup> However, a Persian word \**qamīz* is not definitively attested in Persian lexicography. As Doerfer

*qımız*. For the denominal verbal suffix {+I-} cf. OAT and Anatolian dialects *bayı-* (Old Uyghur *bayu-*) "to become rich" < *bay* "rich."

<sup>83</sup> EstJa, [vol. 6] "Қ," 215-216, [https://altaica.ru/LIBRARY/e\\_edtl.php](https://altaica.ru/LIBRARY/e_edtl.php). Butanaev, *Khakassko-russkii ... Slovar'*, 201.

<sup>84</sup> Marcel Erdal, "What Did the Old Turks Call Fermented Mares' Milk?"

has shown, Vullers's 1864 lexicon entry Persian *qamīz* "poculum [i.e., a drinking cup]" is based on an erroneous text interpretation: the phrase *may ba-q·mīz* (from Abū l-Ma'ānī, i.e. Bīdil (Bēdil), d. 1721, an Indo-Persian poet of Turkic descent) is not to be understood as "wine in a cup" but rather as "wine along with kumis." Consequently, قمیز in this quote means "kumis" and is a loan from Turkic *qımuз*.<sup>85</sup> Similarly, Dihkhuda's two mentions of قمیز both refer to Turkic *qımuз* "fermented mare's milk": The entry قمیز *q·mīz* (the first vowel is not defined) is glossed as "a sort of sour milk (*māst*) prepared among the Mongols" (Dihkhuda cites a 16th century quote from *Ḥabīb al-siyar* by the Timurid historian Khvāndamīr: "Qaydu Khan [a grandson of the Mongol qaḡhan Ögedei] never consumed wine (*šarāb*), kumis (*q·mīz*), or salt").<sup>86</sup> In the entry *ḥāmīz* "a pickled dish, etc." (see more below), Dihkhuda cites *qamīz* (this time vocalized)—apparently again referring to Turkic "kumis,"—as one possible meaning of the headword. Unfortunately, there is no quote accompanying Dihkhuda's claim that Persian *ḥāmīz* can also refer to (Turkic) "kumis, fermented mare's milk."<sup>87</sup>

A variant of Erdal's etymology has been put forward by Sevan Nişanyan—albeit without an Iranian intermediary. Nişanyan moved the Semitic etymon of Turkic *qımuз* chronologically further back from Arabic *ḥāmīḍ* to a (presumably) "Aramaic/Syriac" cognate "xāmeš ܫܡܝܫ" [or *ḥāmēš* < root *ḥmš*]<sup>88</sup> "leavened bread,

85 Doerfer, TMEN 3:513, no. 1529. Johann August Vullers, *Lexicon Persico-latinum Etymologicum*: ... Bonnae ad Rhenum: impensis A. Marci, 2:1864, 743. Steingass's entry "qamīz": "a cup, a goblet" is probably copied from Vuller's erroneous entry (Francis Joseph Steingass, *A Comprehensive Persian-English Dictionary* (London: Allen, 1892), 443).

86 'Alī Akbar Dihkhudā, *Lughatnāmah* (Tihṛān: Sāzmān-i Lughat'nāmah, 1372-1373), "قمیز [q·mīz]" <https://www.parsi.wiki/fa/wiki/350613/%d9%82%d9%85%db%8c%d8%b2>.

87 Dihkhudā, *Lughatnāmah*, "خامیز [ḥāmīz]": "a sort of stew (*ḥurūš*): sheep or lamb meat is put into tanned skin (*pūst-i dabāyat*) and dressed in vinegar, ..., the strained broth from it is drunk; etc.; kumis." <https://www.parsi.wiki/fa/wiki/229278/%d8%ae%d8%a7%d9%85%db%8c%d8%b2>. Vgl. also Steingass "ḥāmīz": "broth strained and left to become jelly" (Francis Joseph Steingass, *A Comprehensive Persian-English Dictionary* (London: Allen, 1892), 443).

88 Regarding the transcription of the Hebrew symbol ך as ḥ versus fricative /x/: ḥ is a simple representation of the symbol, whereas /x/ represents the generally assumed actual pronunciation by the time of Syriac. Many thanks for their information, ideas and input on questions of Semitic etymology go to Rebecca Hasselbach-Andee (Comparative Semitics) and Stuart Creason (Biblical Aramaic, Classical Hebrew).

fermented drink," suggesting an (invalid) direct transfer Aramaic/Syriac → Old Turkic *qımız*.<sup>89</sup> Nişanyan accurately cites Ar. *ḥāmīd* "sour, acidic" and (modern) Hebrew "חמץ *ḥametz*," *chametz* (foods with leavening agents that are forbidden on the Jewish holiday of Passover)—both belonging to the same Proto-Semitic root \**ḥmš* "sour"—as being related to *qımız*. Both Erdal's and Nişanyan's proposals are partially correct. I agree with Nişanyan that the ultimate origin of Turkic *qımız* is not Arabic *ḥāmīd*, but a more distant Semitic form (most probably, Biblical Hebrew *ḥāmēš*). I agree with Erdal that an Iranian intermediary (i.e., Middle Persian *ḥāmīz* "a pickled meat dish, etc.") is the immediate source of Turkic *qımız*.<sup>90</sup> The form cited by Nişanyan as "Aramaic/Syriac *ḥametz*" is actually not an Aramaic/Syriac but a Biblical Hebrew form.<sup>91</sup> Hebrew and Syriac exchanged several Semitic roots, especially through various translations of the Hebrew Bible into Aramaic, Syriac, known as the Targumim (1st – 13th centuries CE).<sup>92</sup> Two variants of the Proto-Semitic root \**ḥmš* "sour, fermented" are attested in Syriac, 1) the inherited regular Syriac root *ḥ-m-*,<sup>93</sup> and 2) the irregular Syriac root *ḥ-m-š* (borrowed most likely from Hebrew). Additionally, Syriac has the related word *āmšā* "sour food," which also must be a loanword of some sort (either inner-Semitic, or via a non-Semitic intermediary) because it is neither derived from the regular Syriac root *ḥ-m-* nor the irregular (borrowed) Syriac root *ḥ-m-š*.<sup>94</sup>

89 Nişanyan *Sözlük*, "kıımız."

90 The phonological adaptation of Middle Persian *ḥāmīz* in Old Turkic involves the following regular steps: *ḥāmīz* → \**ḥamīz* (shortening of long vowels) → \**ḥamiz* ~ \**qamiz* (alternation *ḥ* ~ *q*, commonly observed in Old Turkic) → \**qamiz* (adaptation to 'palatal' [±front] harmony, front *i* becomes back *ɨ*) → *qımız* (optional regressive assimilation of the first vowel *a* [-high] to *ɨ* [+high]).

91 See "חמץ leavened (bread and other food)," in *The Hebrew and Aramaic Lexicon of the Old Testament* (HALOT) Online, edited by: HALOT, accessed October 14, 2023, <https://dictionaries-brill-online-com.proxy.uchicago.edu/search#dictionary=halothebrew&id=HET.367>; and Hebrew "חמץ *ḥāmēš* leavened)," in *Blue Letter Bible*, accessed October 14, 2023. [https://www.blueletterbible.org//search/search.cfm?Criteria=leavened%2A+H2556&t=KJV#s=s\\_primary\\_0\\_1](https://www.blueletterbible.org//search/search.cfm?Criteria=leavened%2A+H2556&t=KJV#s=s_primary_0_1); and "*ḥmš* *chametz*," in *The Comprehensive Aramaic Lexicon*, accessed October 14, 2023 <https://cal.huc.edu/>.

92 Rebecca Hasselbach-Andee, "Semitic Etymology," in *The Oxford Handbook of Etymology*, Philip Durkin, ed. (Oxford University Press, 2024, forthcoming).

93 Leonid Kogan, "8. Proto-Semitic Lexicon," in *The Semitic Languages: An International Handbook*, ed. Stefan Weninger (Berlin: Walter de Gruyter, 2011), 179–258, here: 239.

94 Claudia A. Ciancaglini, *Iranian Loanwords in Syriac* (Wiesbaden: Dr. Ludwig Reichert Verlag, 2008), 108, "āmšā." For Akkadian *emšu* "sour" see "חמץ" in *HALOT Online* (accessed October 14,

As we have seen, Kāšyārī confirms the basic meaning “sour” for Turkic *qımız* “fermented mare’s milk.” He glosses it with the Arabic word *āmiṣ*. Arab philologists and lexicographers (often of a multi-ethnic background) from the late 8th century onwards have registered this word in the variants *أميص āmiṣ*, *عاميص āmiṣ*, and *عاميص āmiṣ*. The earliest Arabic dictionary *Kitāb al-‘ayn*, which Kāšyārī references in his preface and which was completed by al-Layṭ b. al-Muzaffar from Khorasan around 800, notes that *āmiṣ* is not derived from a regular Arabic root, i.e., it is not an Arabic word, but the arabicized form of (Middle) Persian *خامیز hāmīz*. The definitions of ‘*āmiṣ* ~ *hāmīz*’ in the Arabic dictionaries include various food items like “a dish made of calf meat in its skin (*bi-jildihi*)” (al-Layṭ from Khorasan, c. 800); “jelly, gelatin (*hulām*)” (Ibn al-A‘rābī from Irak, d. 846); “meat cut in thin slices and eaten raw, or maybe lightly grilled” (al-Azharī from Herat, d. 980); “a dish made of calf meat in its skin,” and “broth/gravy (*marāq*) from meat cooked in vinegar (*sikbāj*), ...” (al-Fīrūzābādī from Iran, d. 817/1415).<sup>95</sup> None of these definitions—which can be summed up as “a sort of vinegar stew” or “(raw) meat dressed in vinegar,” or “the strained broth of this vinegar stew”—includes “fermented mare’s milk,” or any “fermented dairy beverage.” However, the unifying idea is “soured, fermented (food or liquid),” which, in my view, is the basic meaning of the Middle Persian word *hāmīz*.<sup>96</sup> Daniel Newman, a specialist in the culinary history of the Arab world, confirmed for me that he has not come across the word *āmiṣ* in any of the surviving ten Arabic cookery books from the 13th through 15th centuries (mostly from the western Islamic world).<sup>97</sup> Apparently the food term Ar. *āmiṣ* ~ Middle Persian *خامیز hāmīz* was only regionally known in the eastern Islamic world and (Persianate) Central Asia.

2023). For more cognates of the Proto-Semitic root \**hamṣ* “sour,” including Akkadian *emēšū* “to be sour,” Ugaritic *hms* “vinegar,” (Modern South Arabian) Soqotri *hénaz* “sour milk,” (Modern South Arabian) Jibali *hīz* “(milk) to begin turning into butter” see Kogan, “8. Proto-Semitic Lexicon,” 239.  
95 All Arabic citations here are from <http://arabiclexicon.hawramani.com/>.

96 Cf. Middle Mongolian *esüg* lit., (something) fermented = Kumis; Old Uyghur *süčüg* lit., (something) sweet = sweet wine; Turkish *turşu* lit., (something) sour = pickled vegetables (← Persian *turšī* “pickles” < *turš* “sour”).

97 Daniel Newman, personal communication, February 4, 2023. On the vinegar stew Ar. *sikbāj*, lit. vinegar (← Middle Persian \**sikbāg* > New Persian *sikbā*), one of the “most emblematic dishes of medieval Arab cooking,” see Newman’s webpage <http://eatlikeasultan.com/sikbaj-the-return/>.

I argue that Middle Persian *خاميز* *hāmīz*—according to the medieval Central Asian lexicographers, the basis of Arabic *‘āmīz*—itself is not an Iranian word, but a (direct or indirect) copy of Hebrew *hāmēš* “leavened, soured.”<sup>98</sup> The Middle Persian food term *hāmīz* is attested in *Husraw ud Rēdag*, a Pahlavi treatise of the wisdom-literature genre, where it is (vaguely) described as “pickled meat, a type of *afsard* [cold meat dish] served as an appetizer.”<sup>99</sup> The various (elaborate) definitions for *hāmīz* known today are all based on later Arabic lexicographical works. The often-cited Iranian folk etymology for *hāmīz* < \**hām-āmīz* ‘being mixed raw’ (?) is no longer supported by Iranists.<sup>100</sup> Scholars have previously proposed that Middle Persian *hāmīz* is also the basis of Syriac *āmšā* “sour food.” Whereas Claudia A. Ciancaglini (2008) has proposed to connect Syriac *āmšā* with Indian *āmiśā-* “flesh; raw meat, fish etc.,” Leonid Kogan has “tentatively suggest[ed] that the Iranian forms, formally and semantically, could have been influenced by, or contaminated with the Semitic root *ḥmš* to be sour (especially of meats), ...”<sup>101</sup> I believe that the “Semitic influence” on Iranian *hāmīz* goes beyond semantic contamination. In fact, Middle Persian *خاميز* *hāmīz* as a whole is a copy of Hebrew *hāmēš* “sour, acidic, fermented” (potentially via an (unattested) Aramaic and/or Syriac intermediary). In the Middle Persian script (which derives from the Imperial Aramaic alphabet of the Achaemenid empire) *hāmīz* is actually spelled <h>myc [ \**hāmīč* ], where <h> corresponds to Semitic /ḥ/ (and represents both Iranian sounds /h/ and /ḥ/) and <c> corresponds to Semitic /š/ (representing an historical Iranian /č/ sound which turned into /z/ after a vowel in the Middle Iranian period).<sup>102</sup> MacKenzie

98 My sincere thanks go to David Buyaner who generously shared his expertise in Iranian historical linguistics with me. Many of the essential points of my argumentation here are owed to him.

99 Žāla Āmūzgar, “Cooking ii. In Pahlavi literature,” *Encyclopaedia Iranica* (1989), <https://www.iranicaonline.org/articles/cooking#pt2>.

100 Desmond Durkin-Meisterernst confirmed that Middle Persian *āmēz-* (which goes back to Old Iranian *āmēč-*, with a *-č-* to *-z-* sound change in the Middle Persian period) is part of a verb (*āmīhten* “to mix”) and not a noun as in hypothetical \**hām-āmīz*; the noun is attested in Parthian *myg /āmēγ/* “mixture.” Durkin-Meisterernst concludes that *hāmīz* “could indeed be a borrowing at least in part from Semitic” (personal communication, February 18, 2023); and Durkin-Meisterernst, *Dictionary of Manichaean Texts*, 41.

101 Ciancaglini, *Iranian Loanwords in Syriac*, 108, “āmšā.”

102 David Buyaner, personal communication, October 16, 2023. Skjærvø describes this for non-Manichaean Middle Persian as a mere orthographic feature: “<c> is used to spell z,” with the

describes the representation of Pahlavi words in his dictionary (e.g., “xāmīz [hʹmyc],” p. 93) as an interpretative phonemic transcription “representing ... the pronunciation [the Pahlavi words] would have had in the third century of our era, the period of the rise of the Sasanian empire.”<sup>103</sup> An example of the preservation of the sound /č/ corresponding to Semitic /š/ is the Middle Iranian (Christian Sogdian) word <clybʹ> [\*čalībā] “cross” (New Persian چلیپا *čalīpā*), which is borrowed from Syriac (cf. Arabic *šalīb*).<sup>104</sup> Old Armenian *amič* “a sort of side dish or appetizer (made from game meat; served alongside fruits, apples, and cucumbers)” is apparently a loan from Middle Persian, either \**hāmīč* “pickled meat (side dish)” or its variant (?) \**āmīč* “side dish; vegetables” (presumably also pickled (?)).<sup>105</sup> The Syriac spelling \**hāmīč* for Middle Persian *hāmīz* apparently reflects the affricated pronunciation of Hebrew or Aramaic /š/ (Hebrew *hāmēš*), meaning that <š> was actually pronounced as /ts/ in Hebrew and Aramaic. That affricate /ts/ (which is alien to Iranian languages) was rendered as the closest sound to /ts/, i.e., /č/, in Middle Iranian loans from Hebrew or Aramaic — just like Greek or Slavic words with /ts/ were pronounced with /č/ in Ottoman (e.g. the river name Ottoman *Merič* < Bulgarian *Maritsa*).<sup>106</sup>

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example Iranian <tyc> [\**rēč*] *tēz* “sharp” (Prods Oktor Skjærvø, “Chapter 4: Middle West Iranian,” in *The Iranian Languages*, ed. Gernot Windfuhr (London; New York: Routledge, 2009), 196-274, here: 202). This is true for the Aramaic loanword in Middle Iranian <gcytk> “poll tax” ~ Arabic *jizya* (D. Y. Shapira, “Irano-Arabica: contamination and popular etymology. Notes on the Persian and Arabic lexicons (with references to Aramaic, Hebrew and Turkic),” in *Христианский Восток – Новая Серия*, volume 5 (XI) (Moscow: Издательство Российской Академии Наук и Государственного Эрмитажа, 2009), 160-191, here: 158).

**103** MacKenzie, *A Concise Pahlavi Dictionary*, ix–xiv (Introduction).

**104** Nicholas Sims-Williams, “Syro-Sogdica III: Syriac elements in Sogdian,” in *A Green Leaf: Papers in Honour of Professor Jes P. Asmussen*, eds. Werner Sundermann, et al. (Leiden: Brill, 1988), 145-156, here: 147. See also Shapira, “Irano-Arabica: Contamination and Popular Etymology,” 182, fn 148.

**105** MacKenzie, *A Concise Pahlavi Dictionary*, 8: “āmīz [ʹmyc],” and 93: “xāmīz [hʹmyc].” Heinrich Hübschmann, *Armenische Grammatik: Erster Teil: Armenische Etymologie* (Hildesheim: G. Olms, 1962 [1897]), 96, no. 16. Hübschmann (followed by Ciancaglini, *Iranian Loanwords in Syriac*, 108) links Armenian *amič* to Syriac *āmšā* “sour food” and identifies it as an Iranian loan, but derives it from an (invalid) Middle Persian word \**āmīč* “mixture,” see fn 100, above.

**106** For the so called “affricate hypothesis” see Richard C. Steiner, *Affricated šade in the Semitic Languages* (American Academy for Jewish Research, 1982), esp. 45-47, 50-57; and Leonid Kogan,

So why did Kāšyārī gloss Turkic *qımız* with Arabic *āmiš* for which the medieval Arabic dictionaries give the meaning “vinegar stew” etc.? Kāšyārī (or Persian speakers around him) was probably aware of at least a semantic connection between *qımız* and Middle Persian *hāmīz*, which the Arabic dictionaries gloss with *āmiš*. Kāšyārī himself confirmed in his preface that the *Kitāb al-‘ayn* was at his disposal. Although *hāmīz* ~ *‘āmiš* may be the name for a specific Iranian pickled meat dish, the etymon of the food name does not refer to a certain meat or broth, but simply means “sour, soured, fermented (in an animal skin),” which was apparently still known to contemporary speakers of Persian, and exactly fits Kāšyārī’s definition of *qımız*.

In conclusion, the Turkic word *qımız* “fermented mare’s milk” is not attested before the mid-11th century. The earliest record is from a Persian geographical source in a passage on the Turkic Kimek, followed shortly by the two major Karakhanid Turkic works *Qutadγu Bilig* and *Dīwān Luyāt at-Türk*. Maḥmūd al-Kāšyārī gives “sour” as the basic meaning of *qımız* (*qımız almīla* “a sour apple”). We see reflexes and derivatives of Old Turkic *qımız* “sour” in some modern Turkic languages, like Khakas *ḥumuzah* “sorrel (*Rumex acetosa*, a plant with a distinct sharp, sour taste),” or Anatolian dialects *ḥmzı-/ımzı-* “(for food) to become spoiled or rancid, and taste sour, bitter, or fermented.” Kāšyārī glosses *qımız* with Arabic *āmiš*. *Āmiš* is an obvious loanword into Arabic. The medieval Arabic dictionaries call it a copy from Middle Persian *hāmīz*. I argue that the basic meaning of *āmiš* ~ *hāmīz* (“a pickled meat dish” or “sour broth”) is “sour, fermented (in an animal skin),” which applies to Turkic *qımız*. The food terms Middle Persian *hāmīz* (spelled ⟨h⟩myc < \**hāmīc*), Armenian *amič*, Arabic *āmiš/āmiš/‘āmiš/‘āmiš*, Syriac *āmšā*, Turkic *qımız* (from Middle Persian *hāmīz*) all ultimately go back to Biblical Hebrew *hāmēš* “sour, acidic, fermented (for food or drink).” I suggest that Biblical Hebrew *hāmēš* “sour, acidic, fermented” can be called a “Wanderwort,” that is, a cultural word that spread from the ancient Near East through Eurasia (including the Caucasus, the Transeurasian steppes, and Central Asia), in some cases involving a chain of

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“6. Proto-Semitic Phonetics and Phonology,” in *The Semitic Languages: An International Handbook*, ed. Stefan Weninger (Berlin: Walter de Gruyter), 54–151, here: 62–64 (evidence for an affricate  $\mathfrak{s}$  in pre-medieval Hebrew and Aramaic). I am grateful to David Buyaner for drawing my attention to this point.



borrowings, including inner-Semitic borrowing.<sup>107</sup> The spiritual significance of unleavened food in Judaism and Christianity may have played a partial role in the spread of the word. It is important to point out that in the case of the “Wanderwort” Hebrew *ḥāmēš* “sour, acidic, fermented,” it is not necessarily (or exclusively) a certain cultural item that has spread. Rather the word with the basic meaning “sour, acidic, fermented” was adopted as a new name for (often) already known, indigenous sour or fermented food items, such as “fermented mare’s milk, kumis” among Turkic speakers. Thus, a Semitic word of the Proto-Semitic root \**ḥmš* “to sour, ferment” (Biblical Hebrew *ḥāmēš*?), is the ultimate origin of various names of fermented, sour food and drink items in the Semitic, Iranian, Armenian, and Turkic languages. The tentative path of development from Hebrew *ḥāmēš* to Turkic *qımız* can roughly be shown as: Biblical Hebrew *ḥāmēš* (pronounced *ḥamets*) “leavened, soured, fermented” → ? Biblical Aramaic<sup>108</sup> → ? Syriac → Middle Persian \**ḥāmīč* > *ḥāmūz* “pickled or sour meat, or broth” → Turkic *qımız* “sour, fermented (mare’s milk).”

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<sup>107</sup> I want to acknowledge Stuart Creason here who first came up with the idea of the “Wanderwort” (personal communication, December 7, 2022).

<sup>108</sup> Biblical Aramaic is the official Aramaic dialect adopted by the Persian Empire 559–330 BCE. Syriac is Christian or Eastern Aramaic, used from the 1st century CE through the Middle Ages (13th century).

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