

The Graphemes /š/ and /ŋ/ in the Religious Texts of the *Codex Cumanicus*

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Abstract: The aim of the article is to point out the lack of research on palaeography and orthography of the *Codex Cumanicus*. The article deals with the use of symbols used to denote the consonants /š/ and /ŋ/ of the religious texts in the “German part” of the manuscript. The texts can be divided into two sections: the first being on folios 61r–63r, while the second on folios 69r–76r and 80r. This difference in use of the symbols may show that there were two different methods of writing consonants, which were foreign to the orthography of Medieval Latin writing, in the above-mentioned two sections of the text. The article stresses the importance of the palaeographical and orthographical analysis on the *Codex Cumanicus*, in order to be able to draw valid linguistic information from the codex.

The *Codex Cumanicus* (CC) is one of the richest medieval monuments of the Kipchak language and an essential source for any study on Kipchak historical linguistics. Although the academic literature on this document is rich, many of its nuances, such as palaeography and orthography, remain under-researched. The first publisher of the codex, Géza Kuun (1981)—following the philological methods of his time—normalised the edited text, thus no analysis on its original orthography and palaeography could be conducted. Although the facsimile edition of Kaare Grøbech (1936) gave access to the original texts, the above mentioned fields were left outside the interest of scholars.¹ Nonetheless, Vladimir Drimba’s edition of the *Codex Cumanicus* (2000), which includes a transcription and the facsimile, proves to be ideal for an analysis of this kind.

This paper examines the orthography and palaeography of the *Codex Cumanicus*—in particular the graphemes used for denoting /š/ and /ŋ/ in the religious texts.

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¹ The importance of palaeographical analysis is well-demonstrated by the article of Vladimir Drimba who compared the methods of dating Genoese documents with the one used in the *Codex Cumanicus*. He came to the conclusion that the date, formerly thought to be MCCCIII, should be read as MCCCXXX, thus proving that the Italian part of the codex was compiled in 1330, and the manuscript in the Library of Saint Mark is its first copy. See Drimba 1981.

The codex can be divided into two separate parts. The first (fol. 1r–55v) is a Latin-Persian-Coman dictionary called the “Italian part” or the “Interpreters’ Book”. It is widely accepted that colonists of Italian origin in the Crimea composed the codex (Ligeti 1981, 5–7). The second part (56v–82v) is diverse in respect to its contents. German-Coman and Coman-German glosses can be found on fol. 56r, 57r–58v, 66v, 80v–82v; on 56v, 59r–59v there are poems in Italian; on 60r–60v there are riddles in Coman; on 61r–63v there are religious texts for sermons; on 64r–65v Coman grammar can be read, and on fol. 69r–80r Coman translations of Christian hymns can be found. (A further six empty folios (67r–68r, 77v–78r) also belong to this part). On fol. 78v two lines in Latin sheds light on the name of a former possessor. This second segment of the codex is called the “Missionaries’ Book” or the “German part” because of the glosses in German (*ibid.* 48–9). Since there are two separate parts of the codex in respect of their date of compilation, authors and contents, they are to be studied separately.

The components of the Missionaries’ Book are diverse, necessitating that research on its content should be narrowed down. It is not yet clear how many authors worked on the codex or whether the texts relate to each other at all. While György Györffy (1942), who made exhaustive analysis on the codex, stated that there were at least five scribes working on the CC, Dagmar Drüll (1979, 92–3) identified sixteen different types of handwriting in the same material.² Judging from the ductus of the text—empty pages next to densely written ones—it is safe to say that the texts, grammatical paradigms, riddles,³ and the glosses were written down separately. Taking into consideration the above mentioned matters, it is methodically justifiable to analyse only the religious texts which, based on its content, forms a cohesive part.

On fol. 68v the compilers of the Missionaries’ Book recorded the graphemes that were used to denote the sounds of the Coman language alien to the Latin script. These are the following:

- <æ> for the sound /ä/;
- <ε> for /č/;
- <e> for an allophone of /e/;
- <G> for the /ǰ/ sound in Persian words;
- <ŋ> for the nasal /ŋ/;

² Ligeti (1981, 51–2) thought it to be too much, he thinks that the whole of the codex was composed by colonists of Italian origin, Franciscan monks, writing in Latin (in the German part) and persons writing in German.

³ Ligeti sums up his ideas about the riddle with the following sentence: “It is this very material, totally different in content from the rest, which leads us to believe that these two pages may not be the beginning, but rather the continuation of an earlier, lost fascicule of similar contents”. See Ligeti 1981, 46.

<ı> and <ı̇> for /i/ and /i̇/;

<y> for the Coman /y/ sound;

<u> in Grønbech's or <v> in Drimba's transcription for the sound /ü/ (Grønbech 1942, 14);

<ø> for /ö/;

<h> for /h/ and /χ/ sound;

<s>, which represents /š/.

Although the graphemes were not used consistently, the readings given above can be considered as a tendency (KW 14–5). For instance, in the religious texts the /š/ sound is written with the graphemes <ʃ>, <s>, <z>, and even <ʃch>. However, a paradigm can be established. When a data form the CC is quoted in this study, it is rendered in the original script, which is followed by the transcription of the word, indicated by the sign ~. The dictionaries employed in this study for Turkic data are the following: Grønbech (KW), Clauson (ED) and the Old Turkic-Russian (DTS). Since enumeration of all the data is impossible, only a few are given.

On fol. 61r–63r the graphemes for the sound /š/ are in most cases consistent, and rendered with <z>: 61r 4 *ezitganumdē* ~ *ešitgänimdän*, from the verb *ešit-* ‘hören’ (KW 94–5), *ešit-* ‘to hear’ (ED 257), ‘slyšat’ (DTS 185) meaning ‘[I am guilty,] because of the things I have heard’; 61r 6 *ızlarmdē* ~ *išlärimdän*, *iš* ‘Werk, Tat, Arbeit’ (KW 107) ‘work, labour; something done, a deed’ (ED 254), ‘delo, rabota’ (DTS 214) meaning ‘[I am guilty,] because of the things I have done’; 61r 12 *bozak* and 28 *bozac* ~ *bošaq* ‘Abläss’ (KW 65) from the verb *bošu-* ‘to free, liberate’ (ED 377) or *boša-/bošu-* ‘osvoboždat’sja, polučat’ svobodu’ (DTS 113–4) with the deverbal nomen suffix *-(X)G* (Gabain 1950, 74; Erdal 1991, 2:184) 61v 4 *nızan* ~ *nišän* ‘a sign, signal, mark...’ (Steingass 1984, 1402); 61v 5 *eulganmız* ~ *čulğanmiš* a participle of *čulğan-* ‘gewickelt sein’ (KW 77) <*čuglan-* ‘to be wrapped’ (ED 408); 61v 8 *zugur* ~ *šukūr* the plural of the Arabic *šukr* ‘Dankbarkeit, Dank, Danksagung; Lob, Preis’ (Wehr 1958, 438); 61v 18, *ura bazladılar* ~ *ura bašladılar* ‘fingen sie an, [...] zu schlagen’ (KW 52), where the verb *bašla-* is used as an auxiliary verb ‘they begun to hit’ (Eckmann 1966, 143; Bodrogligeti 2001, 284); 62r 10 *baz vrdılar* ~ *baš urdılar* ‘Kpof, Haut; sie verneigten sich’ (KW 52) ‘they paid homage’; 63v 14 *dwzmanlarne* ~ *dušmanlarni* ‘the enemies’ the Persian *dušmān* ‘an Enemy’ (Steingass 1984, 526); 63v 22–3 *kamız/ılar* ~ *qamiš* ‘Rohr, Stengel’ (KW 192) ‘reed, cane, rush’ (ED 628), ‘trostnik, kamyš’ (DTS 415).

The letter <z> is used to denote the sound /š/ in the middle of the words (-š-) and in word-end positions (-š). The only data available for initial š- is the Arabic word *šukr*, quoted above. This is because of the fact that in genuine Turkic words no lexeme with initial š- is attested (Johanson 1998, 105). 86 cases can be found in text

where /š/ is rendered with <z>, 7 cases when it is written with <j> or <s> (in Latin palaeography these two graphemes are interchangeable), and 6 cases when we find the combination <fch> (61v 33 and 40 *kwn togufchu* ~ *kiin toğuši* ‘(Sonnen)aufgang’ (KW 248)); 61v 14 *bøluŋfchmachibile* ~ *boluŋmaçi bile*; 63r 5 and 14 *boluŋfchmagay* ~ *boluŋmagay*, form the verb *boluŋ-* ‘helfen’ [KW: 65]; 63v 24 *baŋfchina* ~ *baŋina* from *baŋ* ‘head’). It would be tempting to regard the existence of <fch> as a result of the work of German missionaries, but the amount of data calls for caution on this point of view; no hypothesis can be drawn upon on this basis.

There are 12 other cases wherein no clear-cut conclusions can be drawn. The lexeme in our texts for ‘angel’ comes from either the Persian *frišta* ‘an angel; a messenger, apostle’, or *fristā*, the perfect participle of the verb *fristādan* ‘to send’, thus *fristā* ‘sent, an ambassador, apostle’ (Steingass 1984, 908–19). In these cases—because of the close meaning and similar sounding—it is impossible to decide whether the letters <z> and <j> are to be read as /s/ or /š/.

The rendering of the sound /š/ with the letter <z> cannot be explained on linguistic grounds, only on orthographical basis. In the modern northern and western Kipchak languages the sound /š/ is unchanged, while in the southern Kipchak languages it is altered to /s/: CC *baz* ~ *baŋ* ‘Kopf, Haupt’ [KW 52], Tatar (Golovkina 1966, 61), Bashkir (Uraksin 1996, 78), Kumyk (Bammatov 1960, 155), Karachay-Balkar (Urusbiev 1965, 120) *baŋ* ‘head’, but Kazakh (Koç 2002, 79), Karakalpak (Baskakov 1967, 161), Noghay (Baskakov 1963, 71) *bas* ‘head’.

It is worth mentioning in what manner the scribes denoted the sounds /z/ and /s/ on the same 61r–63r folios. In accordance with the Latin palaeographical tradition, the sound /s/ was written with either <s> or <j>, though <j> was used more frequently: 61r 13 *ezitfe* ~ *eŋitŋe*, *eŋit-* in the conditional; 62r 14 *soygl* ~ *søygil*, a *sev-/söv-/söy-* ‘lieben’ (KW 218) in the imperative case; 62v 20 *aŋtri* ~ *aŋtri* ‘sehr, überaus’ (KW 43); 63v 33 *søunelu* ~ *søvünçlü* ‘erfreut’ (KW 224); to mention a few cases. The sound /z/ was written with the letters <z>, <s> and <j>, but in this case the scribes tended to use <s> far more frequently than any other signs: 61v 6 *ŋøfnu* ~ *sözni*, a *söz* ‘Wort, Worte, Gerede’ (KW 224); 61v 33 *uŋdus* ~ *yulduz* ‘Stern’ (KW 128); 63 v *Atamıs* ~ *atamiz*, the *ata* ‘Vater’ (KW 44) with the possessive suffix +*mIz*.

In 1932 Gyula Németh pointed out that the shift of /z/ ~ /s/ in the monuments of the Hungarian Comans is quite frequent, although methodological questions can be raised challenging his statements (Németh 1932, 55–6).⁴ However, the question of

⁴ Németh demonstrated this sound shift with Coman personal names, drawn from medieval Latin sources and with the Coman Lord’s Prayer, first written down in the 18th century. However, the data from the personal names must be treated cautiously, since every etymology lacks the meaning of the word. More than two hundred variants of the Lord’s Prayer were written down in Hungary, yet every example is distorted to the point that it had to be reconstructed according to its meaning. See Mándoky Kongur 2012, 114.

whether the graphemes <s> and <ʃ> denoting /z/ represent phonetic changes remains unanswered.

On folios 69r–76r and 80r—following inflexion paradigms—religious texts with an interlinear Latin translation and explanations can be found. On these pages a change in the use of letters can be observed: the /š/ sound is represented by <s>, whereas the sound /s/ is represented by the sign <ʃ>. We have to bear in mind that these two letters, <s> and <ʃ>, are interchangeable in the Latin writing tradition. Furthermore, as I already pointed out, it cannot be explained by sound changes. Examples are the following: 69r 6 *jsutturdiy ~ išittirdiy* the verb *ešit-* ‘hören’ (KW 108) with the causative suffix in the past tense; 69r 8 *nusāe ~ nišānni*; the Persian *nišān* in accusative; 69r 10 *tusmādē ~ tušmāndān*; 69v 2 *baska < bašqa* ‘anderer als, verschieden von; ausser, ohne’ (KW 52); 69v 2 *teyisli ~ teyišli*, in KW *teyšli* ‘(vom Schicksal) bestimmt, genötigt, gezwungen’ (KW 239); 72v *saytāni ~ šaytānni* the Arabic *šaytān* ‘Satan, Teufel’ (Wehr 1958, 452) in accusative; 71r 16 *balsekerdāt ~ bal šekerdan tur*, where *šeker* is Persian *šakar* ‘Sugar’ (Steingass 1984, 752) ‘it is made of honey and sugar’; 72v 17 *teydes ~ teydeš* ‘gleichgestellt, ebenbürtig’ (KW 241), the Old-Turkic *tey +DAš* with the suffix denoting companion; 74v 5 *tøzdes ~ tözdeš* ‘wesengleich’ (KW: 252), *töz* ‘root, basis, origin’ (ED 571), ‘koren’, osnova, suščnost’ (DTS 583) and *+DAš* (Eckmann 1966, 54; Bodrogligeti 2001, 60); 76r 1 *tuusnuy ~ tuwušniy*, a *tuwuš ~ toguš* ‘(Sonne)n aufgang’ (KW 248); 80r 6 *tusurgetee ~ tüšürgeygeč* ‘hinabstürzen wird’ (KW 261).⁵

On the folios 69r–76r and 80r the grapheme <s> denotes the sound /š/ 87 times, only two exceptions can be found where the <s> represents the sound /s/: 73r 6 *søz* and *søsne ~ söz* ‘Wort, Worte, Gerede’ (KW 224) and *~ söw(ü)nč* ‘Freude’ (KW 223). These letters appear in word-initial, middle and end position. The only examples for word-initials are the Arabic *šaytān* ‘devil’ and the Persian *šakar* ‘sugar’. One example was not taken into account, though it fits into the paradigm: 69r 2 *jemissiy ~ yämišsiy*, the Turkic *yämiš* ‘Frucht, Obst’ (KW 121) *+sXn* ‘you are [the] fruit’. In this case the /s/ in the suffix could have assimilated the final /š/ in *yämiš*.

There are five cases where no clear-cut conclusion could be drawn, again with the Persian *frista/frišta*.

In opposition to /š/, the sound /s/ was consequently written with <ʃ>. Only to mention some of them: 69r 11 *anaʃi ~ anasi*, ana ‘Mutter’ (KW 37); 69v *ʃē ~ sen*; 69v 2 *termæʃida ~ termesindä*, where the word *terme* means ‘uterus’;⁶ 70v 1 *faa ~*

⁵ Both Grønbech (KW 261) and Drimba (1973, 328) amended the morpheme *-ger-* in the word for *-gäy-*, which is a well-attested future/optative in the Eastern Turkic monuments. See Eckmann 1966, 160.

⁶ The first meaning of the word *tärmä* is a kind of ‘tent’, but there is an attested, though rather rare connotation for the female ‘uterus’. In Hungarian medieval monuments it appears as a term exclusively in religious text as the uterus of Saint Mary. See Ligeti 1986, 275–6; Róna-Tas, Berta 2011, 2: 901–3.

saa, which represents the dative case of the personal pronoun. 76r 18 *algıslaşın ~ algışlasın* ‘may he bless!’; 80r 3 and 9 *kenşinä ~ kensinä*, *kensi* ‘selbst, die eigene Person’ (KW 238); 80r 5 *şoşra ~ soşra* ‘später, nachher’ (KW 222);

When analysing the signs for the sound /ŋ/ in the religious text we can come to the same conclusion as with /š/. There are two main ways to denote the Coman sound /ŋ/ in the CC, namely with the combination of <ng> (62v 22 *tengri ~ teşri* ‘Gott’ (KW 241); 63v 6 *conglumuz ~ köşlümiz*, *köşül* ‘Herz’ (KW 152)), and the special sign of the codex, /ŋ/ (72v 12 *şoş ~ soş* ‘Ende, Schluss; letzter’ (KW 222), 76r 3 *Meşv teşrinin ~ meşü teşrinin*, *meşü* ‘ewig’ (KW 164)). There are some additional possibilities to render the sound /ŋ/ which can be explained by the signs used in the traditions of Latin writing. In a few cases the sound is rendered with a tilde <~> placed above a vocal (it is a contraction of nasals in the cluster) which is followed by the sign <g>, (61r 17 *tēşgra ~ teşrigä*, *teşri* ‘Gott’ (KW: 241); 62r 30 *cōşulble ~ köşül bile*, *köşül* ‘Herz’ (KW 152); 70r 9 *tēşızınä ~ teşızınä*, *teşız* ‘Meer’ (KW 241)). Similarly to the examples above, there are cases where the tilde is followed by the sign <ŋ> (69v 6 *mēşu ~ meşü* ‘ewig’ (KW 164); 72r 6 *tēşrinü ~ teşri*). We have a limited number of examples where only the sign <g> is present, though according to the etymology one should expect the sound /ŋ/ (62r 21 *şenig ~ senin* ‘your’; 62r 23 *anışueü ~ anin ücün* ‘because of’). It is not clear why the signs <n> and <~> are missing, though it is safe to propose that the scribes simply forgot to write down the tildes.

The thorough analysis of the signs for the sound /ŋ/ points to the conclusion that the same paradigm can be established as with those for /š/, namely that on folios 61r–63r and 69r–76r and 80r different methods were used to render the Coman nasal /ŋ/.

The data on fol. 61r–63r are very different from each other: the sound is either rendered by the signs <ng>, <g̃>, or also simply <g>. In terms of number, the most frequent are those with <ng>, appearing a total of 94 times, while the ones with <g̃> 24 times, and with <g> on merely seven occasions. The fact that the sound /ŋ/ was rendered by the combination of /n/ and /g/ might reflect that the sound /ŋ/ was alien to the scribe, who considered them to be separate sounds.

On folios 69r–76r and 80r the sound /ŋ/ was written consistently with the sign <ŋ> (253 cases in total), only ten exceptions can be found (two from the <g̃> type: 70r 8 *tēşri ~ teşri* and 70r 9 *tēşızınä ~ teşızınä*, *teşız* ‘Meer’ (KW 241); four from the <ng> type: 69r 10 *şanga ~ şaşa*, 80r 5 *şoşra ~ soşra* ‘später, nachher’ (KW 222) and 80r 6 and 7 *mengv ~ meşü*; and again four from the <ŋ> type: 69r 2 *tuurdūş ~ tuvurduş*, from the *tuv-* ‘geboren werden’ (KW 247) form of the verb *tuğ-/toğ-* ‘to be born’ in the second person singular of the past tense; 69v 8 *şēşdı ~ yeşdı*, a *yeş-/yen-* ‘besiegen’ (KW 122); 72r 6 *tēşrinü* és 72v 3 *tēşrinü ~ teşrinü*). The fact that the scribes used only one sign to render the sound /ŋ/ makes it evident that they made phonetic

difference between /n/ and /ŋ/. The conclusions drawn above are further reinforced by the fact that when the sounds /n/ and /g/ form a cluster—though etymological there are not the /ŋ/ sound—they were written separately (for an example 69r 6 *tengæ* ~ *tengä*, form *ten* ‘Fleisch; der fleischliche Körper’ (KW 240) in the dative case or 73r 3 *agíngan* ~ *agíngan*, the verb *agín-* ‘aufsteigen’ (KW 29) in the gerund -*GAn*).

When comparing the set of data obtained from the palaeographical analysis, it becomes clear that the sound /š/ was denoted on folios 61r–63r with <z>, while on fol. 69r–76r and 80r the sign <s> was used for the same consonant. On the same folio 69r–76r and 80r the letters <s> and <ʃ> denoted different sounds though, according to the Latin writing traditions, they were interchangeable. The letters for the sound /ŋ/ were used differently on fol. 61r–63r and 69r–76r, 80r. This means that the two paradigms overlap with each other. It must be repeatedly underlined that this phenomena is purely an orthographical one, it cannot be explained by sound shifting.

Data for denoting /š/

	š ~ z	š ~ s	š ~ ʃ	š ~ ʃch
61r – 63r	86	3	4	6
69r – 76r, 80r	2	87	0	0

Data for denoting /ŋ/

	ŋ ~ ng	ŋ ~ g	ŋ ~ ˜g	ŋ ~ ŋ	ŋ ~ ˜ŋ
61r – 63r	94	24	7	0	0
69r – 76r, 80r	4	0	2	253	4

To sum up, the following conclusion can be drawn up: based on the methods used for denoting the sounds /š/ and /ŋ/, the religious texts of the Codex Cumanicus can be divided into two separate parts. As a result, it is not sufficient to make a distinction between the “Italian” and the “German” part of the codex; the “German” part has at least two layers of its own. We can conclude that further research is needed on this topic. Palaeographical and orthographical analysis can shed light on the relation between different parts and texts and can further deepen our understanding of the corpus of the Codex Cumanicus. Without such examinations no reliable phonological data of historical linguistic conclusions can be drawn from it, or our results can be misleading.

References

- Bammatov, Zajnal Ziautdinovič 1960. *Russko–kumyjskij slovar'*, Moskva: Gosudarstvennoe Izdatel'stvo Innostrannyh i Nacionnal'nyh Slovarey.
- Baskakov, Nikolaj Aleksandrovič 1963. *Nogajsko–russkij slovar'*, Moskva: Gosudarstvennoe Izdatel'stvo Innostrannyh i Nacionnal'nyh Slovarey.
- 1967. *Russko–karakalpakskij slovar'*, Moskva: Sovyetskaya Enciklopediya.
- Bodrogligeti, András 2001. *A Grammar of Chagatay*, Muenchen: Lincom Europa.
- Drimba, Vladimir 1973. *Syntax Commune*, Bucureşti: Editura Academiei, Leiden: E.J. Brill.
- 1981. “Sur la datation de la première partie du Codex Cumanicus”, *Oriens* 27–8: 338–404.
- (ed.) 2000. *Codex Comanicus, Édition diplomatique avec fac-similés*, Bucarest: Editura Enciclopedică.
- Drüll, Dagmar 1979. *Der Codex Cumanicus. Entstehung und Bedeutung*, Stuttgart: Ketta-Kotta.
- DTS — Nadelyaev, Vladimir Mihaylovič et. al. 1969. *Drevnyurkskij Slovar'*, Leningard: Nauka.
- Eckmann, János 1966. *Chagatay Manual*, Bloomington: Indiana University Press.
- ED — Clauson, Gerard 1972. *An Etymological Dictionary of Pre-Thirteenth-Century Turkish*, Oxford: Clarendon Press.
- Erdal, Marcel 1991. *Old Turkic Word Formation. A Fundamental Approach to the Lexicon*, 2 vols, Wiesbaden: Otto Harrassowitz.
- Gabain, Annemarie von 1950. *Alttürkische Grammatik*, 2nd ed., Leipzig: Otto Harrassowitz (first published in 1941).
- Golovkina, O. V. 1966. *Tatarsko–russkij slovar'*, Moskva: Sovyetskaya Enciklopediya.
- Grønbech, Kaare (ed.) 1936. *Codex Cumanicus*, cod. Marc. Lat. DXLIX, Copenhagen: Levin & Munsgaard.
- Györfy, György 1942. “Autour du Codex Cumanicus”, in *Analecta orientalia memoriae Alexandri Csoma De Kőrös dicta*, Vol. 1, ed. L. Ligeti, Budapest, 110–37.
- Johanson, Lars 1998. “The History of Turkic”, in *The Turkic Languages*, ed. Lars Johanson and Éva Ágnes Csató, London, New York: Routledge.
- Koç, Kenan 2002. *Kazak Türkçesi Türkiye Türkçesi sözlüğü*, Ankara: Akçağ Yayınları.
- Kuun, Géza (ed.) 1981. *Codex Cumanicus bibliothecae ad templum Divi Marci Venetiarum*, 2nd ed. by Luis Ligeti, Budapest: Kőrösi Csoma Társaság (first published in 1880).
- KW — Grønbech, Kaare 1942. *Komanisches Wörterbuch. Türkischer Wortindex zu Codex Cumanicus*, Copenhagen: Einar Munksgaard.
- Ligeti, Lajos 1986. *A magyar nyelv török kapcsolatai a honfoglalás előtt és az Árpád-korban*, Budapest: Akadémiai Kiadó.
- Ligeti, Louis 1981. “Prolegomena to the Codex Cumanicus”, *Acta Orientalia Academiae Scientiarum Hungaricae* 35: 1–54.
- Mándoky Kongur, István 2012. “A kun Miatyánk”, in *Kunok és magyarok*, ed. Molnár Ádám, Budapest: Molnár Kiadó.
- Németh, Gyula 1932. *Die Inschriften des Schatzes von Nagy-Szent-Miklós*, mit zwei Anhängen: 1: Die Sprache der Petschenegen und Komanen; 2: Die ungarische Kerbschrift, Budapest: Kőrösi Csoma Gesellschaft, Leipzig: Otto Harrassowitz.
- Róna-Tas, András, Árpád Berta (with the assistance of Károly László) 2011. *West Old Turkic. Turkic Loanwords in Hungarian*, 2 vols, Turcologica 84, Wiesbaden: Otto Harrassowitz.

- Steingass, Francis 1984. *A Comprehensive Persian-English Dictionary*, 7th ed., London: Routledge & Kegan Paul (first published in 1892).
- Uraksin, Zinnur Gazizovič 1996. *Baškirsko–russskiy slovar’*, Moskva: Digora.
- Urusbiev, Ibragim Hadži-Muratovič 1965. *Russko–karačaevo-balkarskiy slovar’*, Moskva: Sovyetskaya Enciklopediya.
- Wehr, Hans 1958. *Arabisches Wörterbuch für die Schriftsprache der Gegenwart*, 3rd ed., Leipzig: Otto Harrassowitz (first published in 1952).

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