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## The Theoretical Possibilities of the Chronological Interpretation of Cheremiss Loanwords in Chuvash

An investigation of Cheremiss loanwords in the Chuvash language raises four cardinal questions. Without answering these questions research cannot produce tangible results. The questions are the following:

1. What do we call a Cheremiss loan in Chuvash?
2. What are the chronological possibilities of the borrowings?
3. How many dialects can be considered to be donors, and what are they?
4. Where were the Cheremiss words borrowed in the geographical sense?

To date, four monographs have been published on Cheremiss loanwords in the Chuvash language: Räsänen 1920, Fedotov 1968 I-II, Lukojanov 1974, Fedotov 1990. Räsänen's book deals mainly with Chuvash loans in the Cheremiss language, the author provides only a preliminary list of Cheremiss loans in Chuvash including the words common to the two languages (*Verzeichnis der tscheremissischen Lehnwörter im Tschuwaschischen und anderer für diese Sprachen gemeinsamer Wörter, deren Etymologie unklar ist*, pp. 238-274). Fedotov (1968 II. pp. 182-183) determines four principles which may serve as the theoretical basis for proving the Cheremiss origin of Chuvash words: 1. the principle of genetic relationship; 2. the principle of phonological order; 3. the principle of word formation and 4. the principle of geographical spread. Using these principles Fedotov identified 136 Chuvash words as loans of Cheremiss origin. Lukojanov employed Fedotov's principles to classify 287 words as lexemes borrowed from Cheremiss. Finally, Fedotov in his last work (1990) revising Lukojanov's vocabulary accepted 245 Chuvash words as Cheremiss loans in Chuvash. In addition (pp. 291-296) he provides a list of Chuvash phonetic phenomena which – according to him – are the results of Cheremiss influence on the Sundyr-Morgaush local variant of the Viryal Chuvash dialect.

However, the authors cited did not even ask the first question and were not able to answer all relevant aspects of the others. The reason for this is that before 1992 the layer of Cheremiss words of Finno-Ugric origin had not been determined and the Proto-Cheremiss forms of the words had not been

constructed. Second, the authors of these monographs did not use all possible sources of Chuvash historical phonetics as parallels (cf. Róna-Tas 1982) and did not consistently use the historico-comparative method.

In this paper I would like to explore the chronological possibilities of the borrowing of Cheremiss loanwords. Examining the Cheremiss loans of Finno-Ugric origin I will attempt to demonstrate the main types of chronological criteria.

Bereczki, in his monograph on the formation of the ancient Cheremiss language (1994, pp. 14-16), came to the conclusion that no valid arguments exist to prove that the Cheremiss people inhabited their present-day homeland before the mid-13th century. Presumably they reached the left side of the River Volga while fleeing the Mongols. From the point of view of linguistics the mid-13th century is the last phase of the Late ancient Cheremiss period. It was after settling in the Volga region that dialectal differentiation and the dissolution of the ancient Cheremiss unity began (Bereczki 1994, p. 29).

The mid-13th century is also a watershed in the history of the Chuvash language: it is the end of the Late Old Bulgarian period (LOB), cf. Róna-Tas 1982, p. 125. This is followed by Early Middle Chuvash (EMC) to the mid-16th century (the fall of Kazan in 1551-1552), Late Middle Chuvash (LMC) between the 16th-17th centuries and Modern Chuvash as of the 18th century.<sup>1</sup> Now the question is the following: based on what criteria is it possible to decide in which period Cheremiss words entered the Chuvash language?

1. One of the possibilities for proving that these words were first borrowed in the Early Middle Chuvash period is the use of the unvoiced guttural *k* in foreign words with no syllabic opposition, as a signal segment, for the explanation of the front articulation on the Chuvash side. (The term *signal segment* was introduced by L. Johanson, cf. Johanson 1991.) In ancient

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<sup>1</sup> Róna-Tas (op. cit. pp. 126) placed the end of the Late Middle Chuvash period in the mid-16th century, but the investigation of Russian loanwords in the Chuvash language shows that the main phonetic tendency of the Middle Chuvash period, the tendency in the vowel system towards closing, had not been completed by the mid-16th century. The last process of the systematic change of the vowel system was the *ä* > *a* development. On the basis of Middle Russian loans in Chuvash containing a stressed *e* having developed from Protoslavlic *ě* on the Russian side and represented in Chuvash now as *a* (cf. Agyagási 1994, p. 65), the end of the Late Middle Chuvash period can be placed in the late 17th century.

Cheremiss the structure of words was not determined by vowel harmony or consonant harmony. After *g* and *k* both front and back vowels occurred in every phonetic position. In 13th-century Chuvash and even earlier, however, there was syllabic opposition which was completed with the opposition of gutturals. One of the basic differences between the Early Middle Chuvash and Late Middle Chuvash periods is that in the first period foreign words with *k* or *g* were invariably adopted in Chuvash with front articulation, not depending on the front or back articulation of vowels in the donor form. This means that *k* and *g* served the function of the signal segment for front articulation. In the Late Middle Chuvash period front or back articulation in the Chuvash adoption of foreign words was determined by the articulation of the stressed vowel in the donor form, independent of the existence of gutturals in it. See the examples from different chronological layers of Russian borrowings in Chuvash:

Eastern Slavic *kožel'a* 'hemp-tow' → OB *künjele* > Chuvash  
Viryal (V) *kõńcele* Anatri (A) *kěńcele* (Agyagási 1992)

Late Old Russian *kust* 'shrub' → EMC *kütü* > V *kõtõ* A *kětě*

Middle Russian dial. *kukšin* 'jug' → LMC *kukšim* > V *kõkšäm* A *käkšäm*

In Late ancient Cheremiss there was only one guttural phoneme *k* whose allophones were *k* and *g*, cf. Bereczki 1994, p. 64. Phonetically *k* was close to the Early Middle Chuvash front *k*. The phoneme *g* in Chuvash did not yet exist then, foreign *g/ɣ* was substituted there with *k* and *x*. Therefore, words that contain *k* or *g* + back vowel in their Cheremiss donor form and whose equivalents contain *k* or *x* + front vowel can only be Early Middle Chuvash borrowings, cf. the examples below.

Proto-Cher. *\*kutkâ* 'ant' [No 119]<sup>2</sup> → EMC *kõtķõ* > V *kětķě*

Proto-Cher. *\*šičl* 'wart, carbuncle' [No 318] → EMC *šěkěl* > V *šěkěl* A  
*šěkěllě*

<sup>2</sup> The numbers in brackets following the Proto-Cheremiss forms refer to the number of the PC word in Bereczki's etymological index (Bereczki 1992).

If the Chuvash equivalent of a Cheremiss word containing *k* includes a *k* cluster + back vowel, then it was borrowed during the Late Middle Chuvash period. Examples of this criterion include:

Cher. dial. *kon* 'ash' [No 80] → LMC *kõn* ~ *kõm* > V *kõm* A *kãn*, *kãm*

Cher. dial. *kumâž* 'bast' [No 78] → LMC *kõmăș* > V (Sundyr) *kõmõš*  
V (Jadrin) *kãmăș*

Cher. dial. *kupe-* 'to mildew' [No 109] → LMC *kõpa-* > V (Sundyr)  
*kõppa(y)-* V (M. Karačk.) *kãppay-*

Cher. dial. *luk* 'corner' [No 165] → LMC *luk* > V (Sundyr) *lõk*, *lãk*

2. Another useful chronological criterion is the development of the ancient Cheremiss *\*s* in the initial position. The ancient Cheremiss *s* has been palatalised throughout the Cheremiss territory with the exception of the Malmyž area. Generally it developed into *š* in Western dialects, and into *ś* in Eastern ones (on the history of the ancient Cheremiss *\*s*, cf. Bereczki 1994, pp. 53-55, and see the earlier literature there). This development was also realised in the earliest layer of the Russian loans in Cheremiss dialects, with special respect to toponyms of Russian origin. Russian toponyms appeared in Cheremiss territories in the 16th century. As no evidence exists for direct contact between speakers of EMC and the Malmyž Cheremiss dialect, the absence of the *s* > *š* and *s* > *ś* development in Cheremiss loans in Chuvash demonstrates that words with an initial *s* were borrowed prior to the 16th century.

Proto-Cher. *\*simâ* 'thick' [No 325] → EMC *sim* > A, V *sëm*  
cf. Modern Cheremiss Western (Mountain, NW) dial.: *šim*  
Modern Cheremiss Eastern (Central, Volga) dial.: *šem*  
(Viatka-Ufa) dial.: *śim*

Proto-Cher. *\*suks* 'tick' [No 364] → EMC *sõs* > A *sãvãs*  
cf. Modern Cheremiss Western (Mountain, NW) dial.: *šukš*  
Modern Cheremiss Eastern (Central, Viatka-Ufa) dial.: *śukś*

Proto-Cher. \**suz*̂ 'breadcrumb' [No 374] → EMC *sōs* > V *sōsō*, A *sās*,  
*sāsā*  
 cf. Modern Cheremiss Western (Mountain) dial.: *šuz̄*  
 (NW) dial.: *šuz̄o*  
 Modern Cheremiss Eastern (Volga) dial.: *šuz̄*  
 (Ufa) dial.: *šuz̄*, *suz*

The majority of Cheremiss loans in Chuvash unfortunately, do not dispose of these phonetic features. The Cheremiss and the Chuvash phonemic systems of consonants differ only slightly from each other (for a reconstruction of the development of the Chuvash consonant system from the OB period to Modern Chuvash cf. Agyagási 1991, p. 288; for a reconstruction of the Proto-Cheremiss consonant system, see Bereczki 1994, p. 64). But the word structure and the oppositions of vowel phonemes differ in the two languages. The vowel structure of ancient Cheremiss words, however, offers more limited possibilities than 13th-century Chuvash.

The Late ancient Cheremiss vocabulary was composed mostly of one- or two-syllable words. The vowel system by this time had become closed, the phoneme *a* in original words occurred very rarely. The characteristic vowel of monosyllabic words was *o*, *u*, *ö*, *ü*, *i* or *e*. In two-syllable words these vowels occurred in the first syllable and were followed by a reduced back vowel in 90 per cent of the cases, cf. Bereczki 1992 etymologies on pp. 7-90.

Pinpointing the exact date certain words were borrowed is most difficult in words containing closed vowels, and in some cases it is not possible at all. Solving this problem presumes, first, knowledge of the chronological details of the reducing and closing processes of the Chuvash vowel system, and, second, knowledge of the chronology of the development of ancient Cheremiss closed vowels in each dialect. Yet no absolute chronology exists due to the lack of inner sources. Nevertheless, the Middle Mongolian loanwords of Chuvash (cf. Róna-Tas 1982a) demonstrate the results of the reduction and the tendency towards closing. It sets the upper chronological limit of these developments: they could not have taken place earlier than the mid-13th century. On the basis of the systematic characteristics of the Chuvash vowel system it is possible to draw conclusions about the relative order of particular processes.

The first step must have been the reduction of EMC closed vowels: *i* > *ě*, *ī* > *ǎ*, *u* > *ō* and *ü* > *ǒ*. Then the originally half-closed vowels became closed

but as the reduction tendency of the closed ones was still in process, these secondarily closed vowels also became reduced:  $o > u > \check{o}$  and  $\ddot{o} > \ddot{u} > \check{\ddot{o}}$ . At this stage the EMC vowel system consisted of the following phonemes: /a/, /e/, /ã/, /ẽ/, /õ/ and /õ̃/. The reduction process was complete by the end of the EMC period. In LMC the tendency towards closing began. The result of the closing of the labial and illabial allophones of the phoneme /a/ was the appearance of two phonemes: a new /u/ and a velar /i/. The closed [e] allophone of the phoneme /e/ developed into /i/, but these new closed vowels did not take part in the reduction process. The last stage of the Chuvash tendency towards closing was the change of the open [ã] into /a/.

Due to the reduction process the thus far relatively homogeneous EMC language split into two dialects. The Viryal dialect preserved the result of the EMC reduction process, that is the difference between the labial and illabial articulation of reduced vowels. In the Anatri dialect of LMC the labial reduced vowels were delabialised. This means that the LOB closed phonemes /o/, /u/ and /i/ in the LMC period of the Anatri dialect became one phoneme, /ã/, and the LOB /õ/, /ü/ and /i/ became /ẽ/. Of course, there are exceptions in both dialects: the Spask local variant of the Anatri dialect maintains the labial : illabial opposition of reduced vowels despite the general Anatri tendency (for Paasonen's collection from Spask, cf. Paasonen 1908). And in the Viryal dialect of the Sundyr area the differentiation between labial and illabial reduced vowels has ceased, despite the general Viryal tendency.

Concerning the development of Cheremiss closed vowels, linguistic data indicate (cf. Agyagási 1994) that the ancient Cheremiss unity ceased at the end of the 13th century. The development of closed vowels in the first syllable and reduced vowels in the non-first syllable draw a dialectally different picture (cf. Zeps 1960, Gruzov 1964).

It is characteristic of the Western dialect that first-syllable closed vowels change depending on the closed or open quality of the syllable. They become open in closed syllables and they become reduced in open ones. In addition to the Ancient Cheremiss back reduced vowel a front variant has appeared.

In the Lipša local variant of the Western dialect the articulation time of the original /u/ and /ü/ reduced; therefore, besides the illabial back and front reduced vowels their labial counterparts appeared (Bereczki 1994, pp. 18-20). The same can be said of the Volga local variant of the Eastern dialect (op. cit. pp. 24-26). Both the Lipša and the Volga subdialects consist of the same vowel phonemes as Viryal, but the chronological connection of the

formation of the two systems is unknown. In addition, both Cheremiss sub-dialects are now on the border of the Viryal-Cheremiss territory.

The other subdialects of the Eastern dialect maintain the first-syllable closed vowels. The reduced vowels in non-first syllables have become vowels of normal length, and they follow the secondary palato-velar harmony (Bereczki, op. cit. pp. 26-29).

Let us have a look at the examples containing closed vowels.

3. If the Cheremiss donor form is a word with *i* in the first syllable and contains a Chuvash *ě* or *ǎ* equivalent, it could have been borrowed before the reduction process in EMC or in LMC when due to the reduction there was no phoneme *i* in the EMC system, and the Chuvash representation of Cheremiss *i* is a substitution:

a. Proto-Cher. \**wij* 'power' [No 467] → beginning of EMC *wij* > *wěj* >  
LMC *věj* > A *věj*

or

b. Proto-Cher. \**wij* 'power' → end of EMC *wěj* > LMC *věj* > A *věj*  
cf. Western (Mountain): *wi*  
Eastern (Volga): *wī*  
(Viatka-Ufa): *wij*

Proto-Cher. \**lip(â)* 'warm' [No 145] → beginning of EMC *lip* > *lěp* > A,  
V *lěp*

or

Proto-Cher. \**lip(ə)* 'warm' → end of EMC *lěp* > A, V *lěp*  
cf. Western (Mountain): *lip*  
(NW): *liwe*  
Eastern (Viatka-Ufa): *lewe*

4. When the donor form is a word with a labial vowel in the first syllable and all the syllables of its Chuvash equivalent contain labial or illabial reduced vowels, it is not a phenomenon of phonetics that will serve as a criterion for the chronology of the borrowing, but the spread of the Cheremiss word in different subdialects.

a. When a Cheremiss donor form with a labial vowel in the first syllable has an equivalent with reduced vowels both in the Anatri and Viryal dialects, but the word does not exist in Cheremiss subdialects directly connected to

Chuvash territories, the word can be determined to have been borrowed, in all probability, in the early or late EMC period:

Proto-Cher. \**lup̃â* ‘bundle-wood’ [No 170] → beginning of EMC *lup̃i* > *lõpõ* > V *lõpõ* A *lãpã*

or

Proto-Cher. \**lup̃â* ‘bundle-wood’ → end of EMC *lõpõ* > LMC *lõpõ* > V *lõpõ* A *lãpã*

cf. Western (Forest): *lãp̃â*

Eastern (Central): *lupo*

b. When on the Chuvash side we have a loanword of Cheremiss origin with illabial reduced vowels in both Chuvash dialects and the Cheremiss word (the ancient Cheremiss form of which having contained a labial vowel in the first syllable) is represented in every Cheremiss subdialect directly connected to Chuvash territories, the illabial character of the reduced phoneme of the Chuvash word is the criterion for the non-EMC chronology of the word. There are two possibilities for reconstructing when the word was borrowed.

The borrowing of the Chuvash word may date back to a LMC period when the *u* > *ê* development took place in the Mountain local variant of the Cheremiss Western dialect.

Cher. (Western, Mountain dial.): *lãm* ‘snow’ [No 166] → LMC *lãm* > A, V *lãm*

The same process may also have taken place in the Modern Chuvash period:

Cher. (Western, Mountain dial.): *lãm* → V *lãm* → A *lãm*

Nevertheless, the borrowing of the Ancient Cheremiss form (\**lum*) or the Volga dialectal form (*lũm*) of the Cheremiss word can be excluded because of the illabial character of the Viryal equivalent. (The Viryal word was not recorded in the Sundryal area, cf. Ašmarin 8. 106.)



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