AO (H) 37, 1983

Acta Orientalia Academiae Scientiarum Hung. Tomus XXXVII (1–3), 3–41 (1983)

EARLY BULGARIAN LOANWORDS IN THE PERMIAN LANGUAGES[1]

BY

K. RÉDEI – A. RÓNA-TAS

In this paper, the Bulgar-Turkic (Late Old Bulgarian = LOB) loanwords of the Proto-Permian period of the Permian languages are discussed. Contrary to Wichmann (*Tschuw. Lehnw.*) and others (e.g. Fedotov, *Ist. svjazi* I–II) only those loans are regarded to be from the Proto-Permian period which occur, besides Votyak, not only in the P (= Permyak) dialect of the Zyryan language, but also in its northern dialects (Lu., Le., S, V, Pech., I, Vm., Ud., etc.). Besides the given geographic criterion, quite a number of these words can be classified among the oldest borrowings because of certain phonetic features as well. Votyak and the P dialect of Zyryan had also adopted such words belonging to the later layer (adopted after the tenth century) (Cf. Lakó, *Permi ny. szöv.*, p. 63). Of these, some reached Permyak definitely through Votyak mediation. According to Lytkin (*Drev. tjurk. élem.*, pp. 131–42) these also belong to the layer adopted in the Proto-Permian period. As it will be seen, Poppe's view (*Čuvaši*, pp. 26–8), according to which there was no Proto-Permian–Bulgarian contact, cannot be accepted. The opinion that all the Chuvash loanwords of Zyryan are of Votyak or of (Votyak →) P mediation (Raun, *Chuv. Borr.*) is also unjustified. Not only because a number of the common (Zyryan-Votyak) loanwords have phonetic features which definitely point to their being old borrowings (from around the 9th or 10th century), but also because after the northern group of the Zyryans migrated to the north under the pressure of the Bulgar Turks (the 9th to 10th centuries), linguistic contacts between the Zyryans and the Permyaks practically ceased. Therefore, there was but rare opportunity to mediate Chuvash words.

The correspondences and the conclusions proposed so far have become uncertain or controversial for several reasons. There has been no separation of the words which definitely came from LOB during the Common Permian

[1] See our earlier papers in Hungarian: *A permi nyelvek őspermi kori bolgár-török jövevényszavai* [The Bulgar-Turkic Loanwords in the Permian Languages from the Proto-Permian Period]; *NyK* 74 (1972), pp. 281–298, and *A bolgár-török–permi érintkezések néhány kérdése* [On some Problems of the Bulgar-Turkic–Permian Contacts]; *NyK* 77 (1975), pp. 31–44.

LEIDEN

period from those that are later loans. In the material hitherto studied, there are many Chuvash words which either do not belong to the group of words which are of Turkic origin, or are Modern Chuvash forms which are loans borrowd by Modern Chuvash perhaps from other Turkic languages. The only possible starting point is the inner reconstruction of the lending LOB phonetic structure. Naturally, the PP forms can assist such a reconstruction. Therefore, only the following types of PP–LOB correspondences have been included in the subsequent list: 1. those which occur in the northern Zyryan material, 2. those for which the lending LOB form could be reconstructed with the help of Turkic phonology, so that the reconstructed item was not in contradiction with the PP item that could be extrapolated on the basis of the Permian data.

The Bulgar-Turkic loanwords of the Proto-Permian period relate to agriculture, animal husbandry, domestic industries, tools, the political and social life.

I. Late Old Bulgarian Loanwords in Proto-Permian

1. Z y r. (WUo.) V, S *adas* 'der Teil des Ackerbeetes, den eine Person (von einem Ende zum anderen) zu schneiden hat; (V auch) Ackerbeet, Strich des Ackerlandes (einige Faden breit) zwischen zwei Furchen (die teils die Gräben ersetzen, teils auch die verschiedenen Saaten voneinander trennen)', (Rog.) P *adas* 'urok, paj zemli'. V o t y. (Wichm., p. 120) G, Uf. *udȯs* S, M *udȯs* 'der Teil des Ackerbeetes, den eine Person zu schneiden hat' — PP **adas*.

← LOB **adas* > Chuv. *utas* 'step, land measure: 1/24 desjatina' (Sirotkin), *utăm* 'id.', Shor *adïs* '1/18 desjatina' (Verbickij). Cf. Chuv. *ut-* 'to step' < LOB **ât-* < PT **ât-* 'id.' (Cf. Räsänen, *Etym. Wb.*, p. 81).

The PT long *ā* in Chuvash was shortened at an early date; otherwise, one would expect an LOB **ąadas* > Chuv. **yutas* form. The *t* > *d* development in the derived forms of the verb *āt-* is very old. In the word *adaq* 'foot', in effect the 'one which takes a step' which belongs here, the *-d-* behaves like the original *-d-*; thus e.g. in Chuvash, it became *ura* 'foot' (cf. Osm. etc. *ayaq*, Tu. → Mo. *aday* 'the end of something'). In another derived form, the *-d* was retained in all dialects where the original *-d-* had turned into *-y-*, *-z-*, *-r-*, etc.: Tkm. *ādim*, Tat. *adım*, Bashk. *aďım*, Chuv. *utăm* 'step'. In Modern Chuvash, every plosive in intervocalic position is either an unvoiced media or a long unvoiced fortis. Räsänen (*Etym. Wb.*, p. 31) and following him, E. Itkonen (*Bemerkungen*, p. 267) wrongly links the Turki and Lobnor word *atïz* 'irrigated plot of land' also found on a runic monument in the Talas Valley and in Kāšγarī to the Chuvash and Shor data. The final *-s* cannot go back to an earlier *z* because in Chuvash one would expect an *-r* correspondence (Cf. Mo. *atar*). If the word is originally Chuvash, the final *-s* is a participle from the word *at-* 'to take a step'.

Wichmann, *Tschuw. Lehnw.*, p. 120; Uotila, *Gesch. Kons.*, p. 174; Raun, *Chuv. Borr.*, p. 44; Lytkin, *Ist. vok.*, p. 170, *Drev. turk. êlem.*, p. 132; Fedotov, *Ist. svjazi* II, p. 148; *ESK*.

2. Z y r. (WUo) V, LV, S, Lu., I, Ud., P *ban* 'rechte Seite, Vorderseite (V, S, LU., P), rechte Seite des Zeuges (S, Ud.); Wange (VU, I), Gesicht (V, I); Birkenrinde zu Bastschuhen (P)', (Gen.) EP *ban* 'Birkenrinde (zu Schuhen), (Lytk.) ščeka, licevaja storona'. V o t y. (Wichm., publ. by Uotila, *Gesch. Kons.*, p. 237) Uf., MU, Y, M *ban*, G *bam*, B *ban* 'Wange, Gesicht, Seite, Fläche' (Munk.) S. *bam*, K *baŋ* 'id.' — PP. **baŋ*.

← LOB **bäŋ* ~ *beŋ* > Chuv. *min* 'red faced' (Sirotkin, Ašmarin) ~ PT **bäŋ* 'face, facial colour, birthmark on the face' (Räsänen, *Etym. Wb.*, pp. 70, 334; Clauson, p. 346).

The Modern Chuvash form goes back directly to a word with a closed *e* vocal. The Permian words originate from an LOB **bäŋ* form.

Räsänen, *Türk Lehnw.*, p. 103; Lytkin, *Ist. vok.*, p. 163, *Drev. tjurk êlem.*, p. 132; *ESK*.

3. Z y r. (WUo) V, S, Pech., Lu., Le., I, Ud. *ćarla*, P *ćarva·* 'Sichel', (Gen.) EP *ćerla·*, *ćarla·* 'id.' V o t y. (Wichm. p. 102) G, M, Y, MU, Uf. *śurlo*, (Munk.) S., K *śurlo* 'id.' — PP **ćarla* ~ **śarla*.

← LOB *čârla* ~ **śârla* (< OB **čarlay* ~ *śarlay* → Hung. *sarló*) > Chuv. *śurla* 'sickle'.

The Zyryan word is the adoption of the LOB **čârla*, whereas the Votyak is the adoption of the LOB **śârla* form.

The word is unknown in the other Turkish languages. Räsänen's etymology (*Etym. Wb.*, pp. 99—100) which originates our item from a *čar* 'whetstone' can hardly be accepted from the semantic point of view.

Wichmann, *Tschuw. Lehn.*, p. 102; Uotila, *Gesch. Kons.*, p. 30; Lakó, *Perm. ny. szók.*, p. 26; Raun, *Chuv. Borr.*, p. 44; Lytkin, *Ist. vok.*, p. 171; *Drev. tjurk. êlem.*, p. 133; Fedotov, *Ist. svjazi* II, p. 134; *ESK*.

4. Z y r. (WUo.) Le., (SSKD), (Wied.) P, Lu. *eńir*, (Uotila, *Gesch. Kons.*, p. 240) PK *eńir* 'Sattel'. V o t y. (Wichm. p. 55) Uf., Y, M, S, G *eńer*, MU, (Munk.) K *eŋer* 'id.' — PP **iŋər* > **eŋər*.

← LOB **iŋâr* > Chuv. *ĕner*, *yĕner* 'saddle' (Sirotkin) ~ PT **iŋïr*.

The LOB **ï* had changed in Proto-Permian into **ε* under the assimilatory influence of the **ε* in the second syllable (E. Itkonen, *Bemerkungen*, p. 271). The word is only known in southern Zyryan, therefore it is not quite impossible that it belongs to a somewhat later layer of loanwords; or we might even say that the Zyryan (Lu., Le) word originates from Votyak with Permyak mediation.

According to Joki (*Lehnw.*, p. 142) and Räsänen (*Etym. Wb.*, p. 166) the word is a Mongolian loan in Turkic. The word in fact exists in Mongolian in the form *yanggirčay* (< *inggirčay*), i.e. with a diminutive suffix. But the Mon-

golian *-čay* is of Turkish origin and the basic word also exists only in Turkish (Cf. Yakut *ɨŋɨr, ɨŋɨr* 'saddle'). Naturally, the Mongols may have had some role in spreading the word, but the LOB word cannot be of Mongolian origin for chronological reasons.[8] As was rightly noted by Räsänen (*loc. cit.*) the word is not (directly) related to the PT word *äddär* 'saddle' (Cf. Tat. *eyär* etc.).

Wichmann, *Tschuw. Lehn.*, p. 55 ; Uotila, *Gesch. Kons.*, p. 240 ; Raun, *Chuv. Borr.*, p. 43 ; Lytkin, *Ist. vok.*, p. 156, *Drev. tjurk. élem*, p. 133 ; Fedotov., *Ist. svjazi* II, p. 104 ; *ESK*.

5. Zyr. (WUo.) V, S, Pech., Ud. *eś-kę*, V *eś-kęn*, V, S, Lu., Le., Ud. *veś-kę*, LV, I *veś-kę*, V, Lu. *veś-kęn* : Partikel zur Bildung des Konditionals 'id.', (Rog.) *veśkę* 'by'. Voty. (*Wichm.*, p. 59), Y *iśke*, MU *śke*, *śke* (< **iśke*) 'in diesem Falle, wenn es so ist', G *śike* (< **iśke*) 'es scheint, wohl' (Munk.), S *iśke* 'nu dann, nun also' — PP **iśke*.

← LOB **ɣč* ~ **ɣś*, **ɣčke* ~ *ɣśke* > Chuv. *šš, šške, -śke* (Ašmarin, *Materialy*, pp. 239, 325 ; *RČSl*, pp. 72, 189, under *ved, že*) ~ OT *heč* ← Persian *hīš* (Räsänen, *Etym. Wb.*, p. 160).

The word spread throughout the Turkic languages at an early date, but we have no data prior to the 11th century. It can be found with an initial *h-* in the Qutadγu Bilig, in Jügnäki and also in the Codex Cumanicus, which makes its Persian origin probable. In the old linguistic sources and in some of the modern languages it has a negative meaning and stands before the related word. But in the Kipchak languages and in Chuvash, it has become a particle with a stressing function, and stands after the word. This occurs in Chuvash (see above) and in Tatar (*iš*) still without metathesis, but in the other Kipchak languages it is already found with metathesis and with partial (Kklp. *-ši/še*, Nog. *-ši/śi*), or with total assimilation (Kum. *čï/či/ču/čü*, Bashk. *sï/se/so/sö*). In the meantime, the Persian word was also retained in its original form and meaning in the literary language e.g. in Tatar (*hič*, dial. *is*). The Chuv. *-ke* may also be of Persian origin.

In Zyryan an *i* initial would be regular ; the *e-, ve-*, may be explained by the influence of *veś* 'vergeblich, umsonst'. It is possible that only the Zyr. *eś-, veś-* (< **iś-*) and the Voty. *iś-* elements originate from LOB (**ič* ~ **iś*), and the Zyr. and Voty. *-ke* suffixes are identical with the original particle with the meaning 'if'. But even if we derive it from the LOB **ičke* ~ **iśke* form, the effect of the *ke/ke* 'if' particle cannot be excluded.

The Votyak word is definitely of Chuvash origin. If the Zyryan word also belongs here, then it has chronological significance. In fact, the word

[8] The Mongols reached the Volga-region by the 30s of the 13th century. The Kipchak *ɨŋɨrčaq* (CC, Kirg., Kazk., Bashk., Tat. → Alt., Tel., Khak., Chuv ; → Voty., Kammassian) cannot be of Mongolian origin, because to a Mo. *-čay* final a Turkic *-čay* would correspond. A Tu. *-čaq* is regularly reflected as *-čay* in Mongolian.

could hardly have spread in the language of the Volga Bulgars prior to their adopting Islam ; thus, it was definitely later than the 10th century.

Wichmann, *Tschuw. Lehn.*, p. 59 (Zyr. with ?) ;. Uotila, *Gesch. Kons.*, p. 62 ; Raun, *Chuv. Borr.*, p. 43 ; *ESK*.

6. Zyr. (WUo.), V, Lv, S, Pech, Lu., Le., Ud. *gob* 'Pilz (AV, eßbar), (V auch), krasnyj grib, (?) Espenschwamm (Boletus aurantiacus)', (SSKD) US *gǫb* 'obabok, grib'. Voty. (*Wichm.*, p. 57) G, M, Y *gubi*, MU *gibį*, Uf. *gibi*, (Munk.) S, *gubi* K *gibę* 'Schwamm, Pilz'. — PP **gǫmbį*.

← LOB *gümbä* ← Slavic *gǫba* (MB → Tat., Bashk. **gümbä* > *gömbä*) > Chuv. *kämpa, kömpa, kämpo* 'mushroom' (Sirotkin, Ašmarin).

The LOB *ä* became a back vocalic under the influence of the initial *g-* in the Permian language, and had become somewhat more open (**ǫ*) under the influence of the final *ä*. (E. Itkonen, *Bemerkungen*, p. 269). The *i* of the first syllable in Voty. MU *gibį*, Uf. *gibi* K *gibę* (< **gibį*) is the result of assimilation to the stressed *i/į* of the second syllable. (Cf. → Tat. Nokrat *gebi*).

The Slavic word was borrowed by LOB prior to the 10th-century denasalization, and its initial remained voiced.

Wichmann, *Tschuw. Lehn.*, p. 57 ; Räsänen, *Tschuw. Lehnw.*, p. 246 ; Raun, *Chuv. Borr.*, p. 42 ; Lytkin, *Ist. vok.*, p. 35, *Drev. tjurk. élem*, p. 132 ; Fedotov, *Ist. svjazi* II, p. 109 ; *ESK*.

7. Zyr. (Litk., *Drevn.*, p. 132) OZyr. *kan* 'car', *kanalan* 'carstvovanie' (Wied.) *kan* 'Kaiser, König', *kanalnį, kanavnį* 'regieren'. Voty. (*Wichm.* p. 80), G, Y, MU *kun* (Munk.) S, K *kun* 'Fürst, Regent, König' — PP **kan*.

← LOB *χän* > Chuv. *χun* 'khan, prince' (Sirotkin) ~ PT **qan*.

The Turkic word has a variant with a long vowel (*qān*), and also one with two syllables (*qaγan*). Their relationship is uncertain. What is sure is that the form with the short vowel appeared early. The Chuv. *χun* cannot be directly traced to a *qīn* form because the *qī-* syllable had regularly become *yu-* in Chuvash : PT *qīl-* 'to remain' > Chuv. **ɣĭl* > *yul-*, PT *qīn* 'blood' > Chuv. **ɣĭn* > *yun* ; PT *qīr* 'snow' > Chuv. **ɣĭr* > *yur*. In some words, we find *χu-* in Modern Chuvash as the continuation of the PT *qī* syllable : PT *qāzγan* 'cauldron' > Chuv. *χuran*, PT *qīz* 'goose' > Chuv. *χur*. But in these words the long *ā* had become short at an early stage before the *q* > *χ* development. Thus we have to presume a *χän* form in LOB even if ultimately it goes back to a *qīn* form with a long vowel.

Wichmann, *Tschuw. Lehnw.*, p. 80 ; Raun, *Chuv. Borr.*, p. 43 ; Uotila, *Syrj. Chrest.*, p. 90 ; Lytkin, *Ist. vok.*, p. 171, *Drev. tjurk. élem.*, p. 132 ; Fedotov, *Ist. svjazi II*, p. 155 ; *ESK*.

8. Zyr. (WUo.), VS, Pech., Lu., Le., Ud. *karta*, P *karta·* 'Pferde- und Kuhstall im Erdgeschoß des Gebäudes (V), Kuhstall (S), Viehstall (Pech.), Viehstall nebst dem Haus (Lu.), Kuhhof (Le.), Viehstall, Viehhof (mit Dach und Wänden) (Ud.), Hof (P)'. (Gen.) EP *kerta* 'Hof'. — PP **karta*.

← LOB *kärtä* (→ Tat. *kärtä* > *kirtä*, Bashk. *kärtä*) > Chuv. *karta* 'hedge, garden, courtyard' (Sirotkin).

The OldZyr. and I, Lu., LV 'dom, hozjajstvo' meaning of the Zyrian word may have evolved under common Finnish (Karelian-Vepse, cf. Finnish *kartano* 'Hof, Gutshof' (*ESK*)) influence.

The Chuvash word may be derived from a Chuv. *kar-* (< **kär-*) 'fence off, stretch, pitch a tent, etc.' verb, of which it is a development through a deverbal nominal suffix (cf. *ǰarta* 'candle').[3] Derivatives of the same verbal stem are the Tu. *kärmän*, Chuv. *karman* 'fort' words. The word is known in several Caucasian languages (Cf. Georgian *karta*, Megrel *karta*, Osset *kaert*, Chechen *kert*, Ingrel *kärt*, Arm. *k'ert*, (Cf. *Abaev* I, p. 587) and also in several Finno-Ugrian languages (MordE *kardo*, MordM *karda*, ← LOB, Ost. *karta*, *kartaŋ kärtäŋ*, Vog. *kärta* → Zyr). A word of similar phonetic form and meaning exists in Hungarian (*kert*) and in the Indo-European languages (Gothic *garda*, Old Frisian *garde*, Old Slav *ograd* 'garden', *gorod* 'town', Greek χορτος, Lat. *hortus*, and even Hittite *gurtas*. Cf. Pokorny, pp. 442–44). Though the Hungarian word has a perfect Finno-Ugrian, the Chuvash a Turkic, the IE words IE etymologies, it is possible that we have here an ancient international cultural word, which was subsequently fitted into the system of the individual languages. The common economic historical background may have been the nomadic yard settlements. The Mordvin, Zyryan and Volga Kipchak data are definitely of Chuvash origin.

Wichmann, *Tschuw. Lehnw.*, p. 69 ; Uotila, *Syrj. Chrest.*, p. 91 ; Raun, *Chuv. Borr.*, p. 43 ; Lytkin, *Drev. tjurk. élem*, p. 132 ; Fedotov, *Ist. svjazi II*, p. 107, *ESK*.

9. Zyr. (WUo.) V, S., Pech., Lu., Le., I, Ud., P *kẹć* 'Hase'. Voty. (*Wichm.*, p. 73), Uf. *keć*, M, Y *keč* 'Ziege', Uf. *lud-keć*, M, Y *lud-keč*, G *keć*, *lud-keć* 'Hase', (Munk.) S, K *keč* 'Ziege (S.), Hase (K)'. — PP **keć*.

← LOB **käči* (→ Tat. *käjä*, Tat. dial. *käzä* 'saw-horse', *käšäkä* 'crook for a ball game'). (The Chuv. *kača*, *kačaka*, *kačak* 'goat ; crook, crooked stick for games', (Ašmarin, Sirotkin), is a loanword) ~ PT *keči* (Räsänen, *Etym. Wb.*, p. 246.).

The LOB **ä* was substituted in Proto-Permian by an **ɛ* under the influence of the following palatalized affricate (E. Itkonen, *Bemerkungen*, p. 270).

The Tat. *käjä* is a relatively late loanword because of the *ä* ; in the first syllable in an original word, an *-i-* is expected. The *-š-* of the Tat. *käšäkä* reflects a MB *-ś-*. Thus the word existed also in the original vocabulary of the

[3] The *-ta* suffix is rare in Turkic, and more frequent in Chuvash ; here, however, it is neither productive nor is its function clear ; Cf. *kěvente* 'barrel, pole, bucking stick' < *kěv-* 'to buck', *urata* 'propping pole' < *ura* 'foot', *šrata* < 'extreme beam of bench' < *šra* 'notch' and *šurta* 'candle' (Cf. *Materialy čuv.*, p. 54 and No. 10).

Chuvash language. We know that the Chuvash word is a loan because in Chuvash, the *č* would regularly have become *-ś-*. The PT *keči*, *kečike* can hardly be separated from the PT *ečki* of identical meaning, and presumably both are onomatopoeic in nature.

The parallel of the Voty. *lud-keć* 'hare', more precisely 'field goat', and of the Chuv. *mulkač*, *mukač* 'hare' is remarkable. See Egorov's improbable view (*Ét. Sl.*, p. 135).

Wichmann, *Tschuw. Lehnw.*, p. 73 ; Räsänen, *Tschuw. Lehnw.*, p. 38 ; *Tat. Lehnw.*, p. 93 ; Uotila, *Gesch. Kons.*, p. 152, *Syrj. Chrest*, p. 94 ; Lakó, *Perm. ny. szóv.*, p. 55 ; Raun, *Chuv. Borr.*, p. 42 ; Lytkin, *Ist. vok.*, p. 155, *Drev. tjurk. élem*, p. 133 ; *ESK* ; Róna-Tas, *Volga Bulg. words*, p. 172.

10. Zyr. (WUo.) V, LV, S, Pech., Lu., Le., P *kiś* 'Weberkamm', (Gen.) EP *kiś* 'id.' Voty. (Wichm. p. 74) Uf., MU, Y, M, G, *kiś*, (Munk.) S, K *kis* [: *kiś*], *kiś* 'Weberkamm, Weberblatt'. — PP **kiś*.

← **LOB *χĭś* (< **qĭlč*) > Chuv. *χĕś* 'slay, hackle' (Sirotkin) ~ PT *qĭlič* (Räsänen, *Etym. Wb.*, p. 263).

Wichmann, *Tschuw. Lehnw.*, p. 74 ; Uotila, *Syrj. Chrest.*, p. 94 ; Raun, *Chuv. Borr.*, p. 43 ; Lytkin, *Ist. vok.*, p. 180, *Drev. tjurk. élem.*, p. 133 ; Fedotov, *Ist. svjazi II*, p. 153 ; *ESK*.

11. Zyr. (WUo.) V, S, Pech., Ud. *kolta*, I *kǫlta*, P *kolta* 'Garbe' (SSKD), US *kǫlta* 'snop' Voty. (Wichm. p. 79), G, Y, MU, Uf. *kulto*, M *kulto*, (Munk.) S *kulto*, K *kulto* 'id.' — PP **kǫlta*.

← LOB **kŭl'tä* > Chuv. *kŏlte*, *kĕlte* 'sheaf' (Ašmarin, Sirotkin) ~ PT *külte* < **kül-* 'to link' (Räsänen, *Etym. Wb.*, p. 308).

The Chuv. **ŭ* became back vocalic in the Permian languages under the effect of the initial *k*, and became somewhat more open under the influence of the final **ä* : **ǫ* (E. Itkonen, *Bemerkungen*, p. 269).

Though the vowel of the Turkic verbal stem was long (Cf. e.g. Tkm. *güil-*), the vowel of the substantive derived from it became short (Cf. Tkm. *külte*).

Wichmann, *Tschuw. Lehnw.*, p. 79 ; Lakó, *Perm. ny. szóv.*, p. 26 ; Raun, *Chuv. Borr.*, p. 43 ; Lytkin, *Ist. vok.*, p. 47 ; *Drev. tjurk. élem.*, p. 133 ; Fedotov, *Ist. svjazi II*, p. 110 ; *ESK*.

12. Zyr. (WUo.) V, LV, S, Pech., Lu., Le., Ud., P *kud*, I *kùd* 'runde Schachtel aus dünnen Espenscheiben (in größeren hält man z. B. Wäsche, in kleineren z. B. Mehl) (V, S, Lu.), runder Korb aus dünner Espenscheibe (es gibt größere und kleinere) (LV), Korb (für Reisekost) aus Birkenrinde od. Wurzeln (Pech), Korb überhaupt (aus Spänen) (Le.), Korb, Schachtel, Kasten (Ud.), Korb aus Rinde (P, I)', (Gen.) EP *kud* 'Korb'. Voty. (Wichm. p. 76), G *kudį* '(Saat) Korb', *kudi* 'Korb von Rinde', M, MU *kudį* 'id.' Schachtel', Uf. *kędį* 'kleine Schachtel von Rinde', (Munk.), S *kudį*, K *kudę* 'eine Art kleiner Korb' — PP **kundį*.

← LOB *χundï ~ PT *qomdï (Cf. also Mo. *qobdu*) (Räsänen, *Etym. Wb.*, p. 279).

The *komtä*, *kunta*, *komät*, *kontäk*, *kuntäk* 'bark basket' forms in Chuvash are loans, since an original *q* would have become *χ*-. The Turkic word is known only in the northern Turkic languages (Tat. dial. *qumta*, *qunta*, Bashk. *qumta*. TatTob. *kunta*, Shor., Khak. *komdi*, *xomdi*, Alt. *komda*, Kyz. *xomdi* (Cf. pp. 5–6 above).

The *j* (*kudjįś* 'aus dem Korb') appearing in the Zyryan forms with a suffix is secondary.

Wichmann, *Tschuw. Lehnw.*, p. 76; Uotila, *Gesch. Kons.*, p. 275, *Syrj. Chrest.*, p. 104; Lakó, *Perm. ny. szóv.*, p. 13; Raun, *Chuv. Borr.*, p. 42; Lytkin, *Ist. vok.*, p. 206, *Drev. tjurk. élem.*, p. 133; Fedotov, *Ist. svjazi II*, p. 111; *ESK*.

13. Voty. (Isl.) Y *kudįri*, *iźźi k.* 'Gebräme, Rand, Besatz (an Mützen)', (Munk.) M *kudįro* : *mįjį k. šuba* 'mit Biber gebrämter Pelz'. – PP **kundįr*(i).

← LOB *χändïr-i* (< **qumdur*) > Chuv. *χöntör*, *χäntär*, 'beaver, beaver skin, beaver-skin trimming' (Sirotkin, Ašmarin) ~ PT *qumduz* (Räsänen, *Etym. Wb.*, p. 301; Clauson, p. 635).

The *-i* of the Voty. *kudįri* is identical with the LOB possessive suffix (otherwise Wichmann, *loc. cit.*, p. 34), and became independent from compounds such as the Modern Chuvash *kĕrĕk χäntarĕ* 'the trimming of the fur coat'. The Voty. *kudįro* (the *-o* is an adjectival suffix) represents the **kudįr* form coming from LOB without a possessive suffix.

Wichmann, *Tschuw. Lehnw.*, p. 77; Fedotov, *Ist. svjazi II*, p. 152.

14. Zyr. (WUo.) V, S, Pech., Lu., Le. *kušman*, P *kušma·n* 'Rettich'. Voty. (*Wichm.* p. 85), G, M, Y, MU, Uf. *kušman*. (Munk.), S, K *kušnan* 'id.' – PP **kušman*.

← LOB *χušman*; Cf. Chuv. *kĕšman*, *kăšman* 'radish' (Ašmarin, Sirotkin) ← Tat.

The word is a late Tatar loan in Modern Chuvash (Cf. Tat. dial. *kušman* 'radish'), and it means all sorts of edible roots (Cf. *yüś k.* 'radish', *sar*, *šurä k.* 'Swedish turnip', *tutlä k.* 'id.' *χura k.* 'radish', *χĕrlĕ k.* 'red beet' (Ašmarin VII, p. 221). The word *kăšmi* 'Swedish turnip' is also a loan in Chuvash (*loc. cit.*). But the origin of the Tatar word is not Turkic, as it has no relatives there, but is the adoption of an LOB **χušman*. This is indicated also by the Cher. *ušnen*, *ušman* (Räsänen, *Tschuw. Lehnw.* p. 237) and the Mord. Erzä *kĕumań*, Moksha *kušma·n*, *kušma* (*Wichm.*, p. 86), which all derive from the Bulgarian form. The LOB words **χušman* and **χušmi* are also without relatives in the Turkic languages, and for reasons of linguistic history, we have to believe that the Bulgar-Turks, migrating to the central course of the Volga, adopted the name of a local plant from the local inhabitants. The origin of the word could be a Proto Vogul **koćmən* ~ **koćmə*, cf. Vog. (Kannisto, *Tat. Lehnw.*, p. 232), P *koššəm* NVag., SVag. LL, ML *kośmən*, UL *χŏśman* 'eine zwiebelartige wild wachsende Pflanze, deren Stengel und Wurzel als Suppenwürze gebraucht werden; Zwiebel'; Hung. *hagyma*; Zyr. (Wied.) P *komiź* 'Lauch (allium)'; (Lytkin) Ja. *ku·mić* 'pero luka, zelenyj luk', Voty. (Wied.) *kumuź*, *kumįź* 'Knoblauch'; (Munk.) S *kumįz* 'garlic'; (see URS) *kumįź* 'dikij česnok' (*MSzFE*, see under *hagyma*). The LOB *χüsmi* may derive from a PH **χoǯmə* (< Ugrian *koćmə* or *kaćmə*) or from a Proto-Permian **koǯmə-* form as well.

The *-a-* of the Voty. *kušman* indicates a late borrowing and this makes the common, Proto-Permian origin of the Permian words controversial. The Voty. *kušnan* form instead of the expected *kušmon* may be a reshaping under the influence of the Chuvash or Tatar word.

Wichmann, *Tschuw. Lehnw.*, p. 85; Gombocz, *BtLW*, pp. 33–34, Raun, *Chuv. Borr.*, p. 44, Lytkin, *Ist. vok.*, p. 207, *Drev. tjurk. élem.*, p. 133, *ESK*.

15. Zyr. (Wied.) *kuźe* 'Waldgeist' (WUo.) Pech. *kuźę* 'id.' (SSKD, KRSl.) *kuź* 'lešij, čert'. Voty. (*Wichm.* p. 86), G, Uf. *kuźo*, M, Y, MU *kuźo* 'Wirt, Hausherr, (Uf. auch) Besitzer, (G auch) Kaufmann', (Munk.) S *kuǯo*, M *kuźo*, K *kuźo* 'Herr, Eigentümer, Herrschaft, (K) Geist, Schutzgeist, Gottheit' – PP **kuźə*.

← LOB *χuźa* ~ *χuźu* (← Persian *χ"aǯa*) > Chuv. *χuśa* 'master, lord' (Sirotkin, Räsänen, *Etym. Wb.*, pp. 161, 274). On the double correspondence, see below.

The Zyr. *kuź* evolved by abstraction from the Zyr. **kuźa* that can be expected on the basis of the PP **kuźə*; the final *a* was regarded as a suffix. The *-ę/-e* element of the Zyr. *kuźę* (~ *kuźe*) is a vocative suffix derived from PxSgl. The original *ǯ*, *ź* affricate was retained in the S and M dialects of Votyak; in the other dialects and in Zyryan, there was a *ź* > *ź* sound change (Cf. Uotila, *Gesch. Kons.*, p. 168). The derivation of the Zyr. *kuź*, *kuźę* 'Waldgeist' from the word *kuź* 'lang' (Beke; *NyK* LIX, p. 197) cannot be accepted semantically.

Wichmann, *Tschuw. Lehnw.*, p. 86; Lakó, *Perm. ny. szóv.*, p. 27; Raun, *Chuv. Borr.*, p. 42; Lytkin, *Ist. vok.*, p. 207; *Drev. tjurk. élem.*, p. 133; Fedotov, *Ist. svjazi II*, p. 157.

16. Zyr. (WUo.), V, LV, S, Pech., Lu., Le., I, Ud. *śęķid*, P *śęķit* 'schwer, schwierig; schwanger'. Voty. (Wichm.), G, Uf. *śekįt*, M, Y *śekįt*, (Munk.), S, M *śókįt*, Y, G *śekįt*, K *śekęt* 'id.' – PP **sekįt*.

← ? LOB **sŭk* > Chuv. *śĕk* 'burden' (Ašmarin), *śăk* 'id.' (Sirotkin), *śĕkle-*, *śŏkle-* 'to lift, to carry (burden)' (Ašmarin, Sirotkin, Paasonen, *Csuv. szój.*) ~ PT *yük* (Clauson, p. 910, Räsänen, *Etym. Wb.*, p. 212).

The Chuv. *śĕk* is no longer used, and probably, in Ašmarin's dictionary, it is a deduction from the still living form *śĕkle-*. The back vocalism of *śăk* is secondary.

This derivation is ambiguous as the supposed PP illabial *ɛ may have irregularly corresponded to the LOB labial *ă̈. For the PP representations of the LOB *ă̈, see page 16. The Zyr. *-ȷ̈d* and Voty. *-ȷ̈t* are adjectival suffixes that may be attached among other to loanwords as well, e.g. Zyr. *krepȷ̈d* 'fest, stark' ← R. *krepkij*).

Wichmann, *Tschuw. Lehn.*, p. 97 (with a question mark) — Erroneously; *ESK*.

17. Z y r. (Lytk., *Drevn.* p. 153) *śiroe* (: *śir-iś* or *śȷ̈r-iś*) 'svinec' — PP **śir* or *śȷ̈r*.

← LOB **śir* (< *ǰer*) → Mord. Erzä *śerä*, Moksha *śerä*, 'Kupfer, Messing' ~ PT *yez* (Räsänen, *Etym. Wb.*, p. 199, Clauson, pp. 282–3). The Chuv. *yĕs*, *yăs* 'copper' (Sirotkin, Ašmarin) is a late loanword.

The posterior component (*-iś*) is identical with the *-iś* element of metal names; *ezȷ̈ś* 'Silber', *ozȷ̈ś* 'Zinn' (see under *ezüst* in *MSzFE*).

Lytkin, *Drev. tjurk. êlem.*, p. 134; Fedotov, *Ist. svjazi II*, p. 133.

18. Z y r. (Lytk. *Drevn.* p. 144) OZyr. *śȷ̈l* 'burnyj, burja' (SSKD), Vm., I *śȷ̈*, LV *śiv* 'burja, sil'nyj veter', (WUo.) VL *śȷ̈la* 'morscher Baum', (Fokos-Fuchs) V, Le. *śȷ̈la* 'vom Alter umgestürzter Baum (V), Windbruch (Le).' V o t y. (Wichm., p. 99) *śil*: G, M *śil-tȷ̈l*, Y *śil-tów*, MU *śil-dau* 'Sturm, heftiger Sturmwind', Uf. *śil-pari* 'Windteufel, Wirbelwind', (Munk.), S *śil* (G vr. *śeľ*): *śil-tól*, *śeľ-tól*, K M *śil-dau* 'starker Wind, Sturmwind' — PP **śȷ̈l* (and perhaps **śiľ*).

← LOB **śȷ̈l*, **śil*, ? *śil* (< *ǰel*) > Chuv. *śil* 'wind' (Sirotkin) ~ PT *yel* (Räsänen, *Etym. Wb.*, p. 195, Clauson, pp. 916–7).

The Voty. *śil* can also be explained from the PP *śȷ̈l* form: **śȷ̈l* > **śil* > *śiľ*. The Voty. *śeľ* alludes to a LOB **śȷ̈ľ* mediating form. Because of the PP *śȷ̈l*, we have to take into account the LOB *śil* form as well. Incidentally, the velarization of palatals is not an infrequent phenomenon in Chuvash.[4]

Wichmann, *Tschuw. Lehnw.*, p. 99; Uotila, *Lehnw. Perm.*, p. 1; Raun, *Chuv. Borr.*, p. 44; Lytkin, *Ist. vok.*, p. 196; *Drev. tjurk. êlem.*, p. 133; Fedotov, *Ist. svjazi II*, p. 133; *ESK*.

19. Z y r (WUo.) V *śuri*, P *śurï* 'Weberspule, Spulrolle', (SSKD) UV, Skr., MS *śuri* 'cevka, spul'ka (dlja namatyvanija prjaži', (Gen.) EP *śurï* 'Spule'. V o t y. (*Wichm.*, p. 98) G, Uf. *śerî*, M, MU *śerȷ̈*, (Munk.) S *śĕrî* [: *śerȷ̈*], K *śire* 'Weberspule, Spulrolle'. — PP **śuri* (Zyr.), **sǫrȷ̈* (Voty.).

← LOB **śŭrŭ* ~ **śŭre* → Tat., Bashk. *śüre* → Chuv. *śĕrĕ*, *śŏrŏ* 'bobbin, spool', (Ašmarin; Sirotkin; Räsänen, *Etym. Wb.*, p. 214).

[4] The old BT *ä* became a regular *a* in Chuvash (see note 18) and the diphthongs with *ä* (as *ȷ̈ä* < *öj* < *ð*) also became back voiced (*kăvak* < *kŏk* 'blue'). In some cases, this development was followed by the short *ö* as well (*văkăr* < *öküz* 'ox'). The back vocalic *ï* had developed into *ĕ* through a front vocalic *i*, or was reduced to *ă*. Some words containing a front *i* also followed this development (e.g. *śăna* 'mosquito' < **siŋek*).

If the word is etymologically identical with the Chuv. *śĕrĕ*, *śŏrŏ* 'ring', then it goes back to an earlier *ǰürük* ~ PT *yüzük* form. The Ostj. KoP *tïr*, Vog. TJ, T C *tśür*, Ku, P, VN *śĕr*, LU *śĕra* (Steinitz, *Tat. Lehnw.*, pp. 89–91) and the Siberian Tat. *cür* are ultimately also of Bulgar-Turkish origin.

The *ă̈* in the LOB first syllable was partly substituted by *u*, partly by **ǫ̇* in Proto-Permian. In Votyak under the influence of *ś* an (**ǫ̇* >) – **ę* > *e* sound change took place. The continuity of the Zyr. *-i* is unusual as one would expect a **śur* form in Zyryan (see later).

Wichmann, *Tschuw. Lehnw.*, p. 98; Lakó, *Perm. ny. szóv.*, p. 63; Raun, *Chuv. Borr.*, p. 44; Lytkin, *Ist. vok.*, p. 225, *Drev. tjurk. êlem.*, p. 133; Fedotov, *Ist. svjazi* II, p. 132; *ESK*; Róna-Tas, *Volga Bulg. Words*, p. 172.

20. Z y r. (SSKD) Vm., I, Skr., Ud. *tȷ̈lȷ̈m* Uf. *tȷ̈lim* 'prjad; iz pen'ki (privitje dratvy)' — PP **tȷ̈lȷ̈m*.

← LOB **tülüm* (→ Tat. dial. *tülüm* 'ornament for female hair plaits' ~ PT *tuliŋ* (Räsänen, *Etym. Wb.*, p. 498, Clauson, p. 501).

Some of the Modern Chuvash *tŏlŏm*, *tălăm* 'wool heap' forms go back to a *tuliŋ* form (Cf. Kāsγarī *tuluŋ*, *tulun*). The Tat. *tolim*, Bashk. *tolom*, Kazk. *tulum*, Kirg. *tulum* 'hair plait' forms may be old Bulgarian loanwords, in contrast to the Ottoman *tulun*, Alt. *tuluŋ* forms retaining the original final. The *-ĭ-* of the first syllable is the result of regressive assimilation *tulĭŋ* > *tülĭm* > *tălăm*.

Lytkin, *Drev. tjurk. êlem.*, p. 135; Fedotov, *Ist. svjazi* II, p. 138.

21. Z y r. (WUo.) V, S, Pech., I, Ud., P *tuś* 'Korn, Samen (V, S, Pech., I, Ud, P); Erbse (Pech.); Zedernuß (Pech.); Beere (S, Ud, P); Kern (V); männliches Glied (V)', (Gen.) EP *tuś* 'Korn, Kern, Graupen'. V o t y. (Wichm. p. 108), G *tȷ̈s* 'Samen, Saatkorn', M *tȷ̈ś* Uf. *tiś* 'Korn', Y *tȷ̈ś* 'Samen, Korn, Kern', (Munk.), S *tȷ̈ś* K *tiś* 'Korn, Saatkern'. — PP **tuś*.

← LOB *tŭś* (< **tülč*) ~ PT *tüš* (Räsänen, *Etym. Wb.*, p. 507; Clauson, p. 538).

In Votyak a sporadic **u* > *i*, before *ś* (Uf., K) *i* > *i* occured.

The Chuv. *tŏš*, *tĕš* is a Tatar loanword because of the final *-š*. On the correspondence of the ST *š* ~ Chuv. *ś*, see pp. 15–17.

Wichmann, *Tschuw. Lehnw.*, p. 108; Raun, *Chuv. Borr.*, p. 42; Lytkin, *Ist. vok.*, p. 222; *ESK*.

22. Z y r. (WUo.) V, S, Pech., Lu., Le. *vośtȷ̈-*, I *vǫśtȷ̈-*, Ud *vęśtȷ̈-*, P *oś-*, *ośtȷ̈-*, 'öffnen, aufmachen', (*SSKD*), US *ǫśtȷ̈-* 'id.' (Gen.) EP *ušt-* 'id.' (WUo.) V, S, Pech., Lu. *voššȷ̈-*, LV *vošš-*, I *vǫššȷ̈-*, Ud. *vęššȷ̈-*, P *ošši-* 'sich öffnen, aufgehen'. V o t y. (Wichm. p. 126) G *uštȷ̈-*, S, M, Y, MU *uśtȷ̈-*, Uf. *uśtȷ̈-* 'öffnen, aufmachen', G *usjal-* 'öfter öffnen', — PP **ǫ̇č-*.

← LOB *ăč-* > Chuv. *uś-* 'to open' ~ PT *ač-* (Räsänen, *Etym. Wb.*, p. 3; Clauson, p. 18).

The Zyr.-Voty. *-tį-* is a causative, the Zyr. *-śį-* is a reflexive, the Voty. *-jal-* is a frequentative suffix. In the Permian languages, the process of disaffrication (**-ć-* > *-ś-*) took place before a *t*. The PP **ǫ* is a substitution for the labial LOB *ä*.

Wichmann, *Tschuw. Lehnw.*, p. 126; Uotila, *Gesch. Kons.*, p. 58, *Syrj. Chrest.*, p. 183; Lytkin, *Ist. vok.*, p. 34; Fedotov, *Ist. svjazi II*, p. 148; *ESK.*

Phonetic Conclusions

Consonants

1. *Plosives*

PT *ķ-* > LOB *χ-* (> Chuv. *χ-*) → PP *k-* (7, 10, 12, 13, 14, 15). In PP there was no *χ*; therefore *k* was substituted. This is clear in the case of the word *χoja* of Persian origin, where there was also originally a *χ*, and where PP also substituted a *k* (Cf. also Ar. *ḫarǰ* → Chuv. → Voty. *körś*, *kęrś* 'tax'). The *k* > *χ* development probably did not take place at the same time in the various Bulgar-Turkic dialects. In the Kazar language, at any rate, *χ* is found already in the 10th century: *χαγanos* (Constantine Porphyrogennetos), *χazaroi* (Iṣṭakhrī, Ibn Faḍlān), *χapubaliq* (Ibn Rusta).[5] Such pre-Conquest loanwords in Hungarian like *homok* 'sand' (~ Tu. *qumaq*) are not necessarily from a time prior to the Hungarian *k* ⩾ *h* development, but could be adoptions of a Tu. *χ-* from a dialect in which and at a time when the PT *q-* had already become *χ-*. Already in the 13th or 14th century, in the VB inscriptions we find everywhere: *χirχ* 'forty', *hir* 'girl', *χïrχum* 'servant' etc.

PT ? *-ķ*, ? *-ǧ* > LOB *-ɣ* (< *-ɣ* < *-γ* > Chuv. *ɣ*) → PP *ɣ* (3)
PT *ķ-* > LOB *k-* (> Chuv. *k-*) → PP *k* (8, 9, 11)
PT *-ķ* > LOB *-ɣ* (< *-ɣ* < *γ* > Chuv. *ɣ*) → PP *ɣ* (19)
PT *t-* > LOB *t-* (> Chuv. *t-*) → PP *t-* (20, 21)
PP *-rt-* > LOB *-rt-* (> Chuv. *-rD-*) → PP *-rt-* (8)
PT *-lt-* > LOB *-lt-* (> Chuv. *-lD-*) → PP *-lt-* (11)
PT *-t-* > LOB *-d-* (> Chuv. *-D-*) → PP *-d-* (1).

The *-t-* becoming voiced is secondary in this word.

PT *b-* > LOB *b-* (> Chuv. *p-*) → PP *b-* (2).

[5] On these data see Z. Gombocz, *Honfoglalás előtti bolgár-török jövevényszavaink* [The Bulgar-Turkic Loanwords of the Hungarian Language before the Conquest], *Nyelvtudományi Értekezések* 24, Budapest 1960, p. 23, and Ligeti's editorial remarks.

The PT *b-* became *p-* in Modern Chuvash partly because of a systematic assimilation to *k-* and *t-*, and partly under the impact of the surrounding Finno-Ugrian languages. In the meantime, the *b* > *m* development which had already begun in PT in certain positions, continued in BT phonology and in some words (e.g. in the word *bäŋ* before a nasal), had become *m*. Thus the PP *b-* correspondence shows that the *b* > *p* development in the LOB period had not yet got as far as *p-*.

The existence of voiced initial gutturals and the dental (*ǧ-*, *g-*, *d-*) in PT is a controversial question. At least the fact that in some BT dialects there existed voiced initials seems to be definite. It is indicated by parallels like the Mo. *düli* and the Hung. *dél* that can be identified with the Tu. *tüš*, and are all BT loanwords. But these may have been sporadic and dialectal forms shown by the following types: PT *küzen* ~ Hung. *görény*, but Mo. *kürene*, or PT *köšek* ~ Hung. *kölyök*, but Mo. *gölige*. The very fact that the PP and the Volga Kipchak languages had adopted the LOB word **gümbä* with a voiced initial indicates that in certain cases there were voiced initials in LOB as well.

The LOB *-mb-*, *-nd-* had denasalized in the Permian languages to *b*, *d* (see below). The LOB loanwords belonging to this group are an important criterion of dating the Permian denasalization (PU, PFU *mp*, *nt*, *ŋk* > P *b*, *d*, *g*). It is known that the separation of the Permian peoples took place at around the turn of the 9th and 10th centuries with the gradual northward migration of the predecessors of the Zyryans. On this basis of the upper time limit of the Bulgar-Turkic and Permian contacts, the Permian denasalization can be dated at around the 9th or 10th century. (Cf. Wichmann, *Tschuw. Lehnw.*, pp. 25, 58, 76—7, 129, 139).[6] The Chuvash words adopted by the already independent Votyak language retained the nasal-plosive cluster (Wichmann, *Tschuw. Lehnw.*, pp. 25, 57, 107, 128).

2. *Nasals*

In PT only the *ń-* existed in an initial position among the nasals, but this developed into *j-* in the PB age. As we have seen, a secondary *m-* developed out of the original *b-* (*bäŋ* > Chuv. *min*).

PT *-md-* > LOB *-nd-* (> Chuv. *-nD-*) → PP *nd* (> Zyr.—Voty. *d*) (12, 13)
PT *-mb-* → (LOB *-mb-*) (> Chuv. *-mB-*) → PP *mb* (> Zyr.—Voty. *b*) (6)
PT *-n* > LOB *-n* (> Chuv. *-n*) → PP *-n* (7, 14)
PT *-ŋ -ŋ-* > LOB *ŋ* (> Chuv. *n*) → PP *ŋ* (2, 4)
PT *-ŋ* > LOB *-m* (> Chuv. *m*) → PP *-m* (20)

[6] See further K. Rédei, *Gibt es sprachliche Spuren der vorungarisch-permischen Beziehungen?*: *ALH* 19 (1969), pp. 329—30.

In BT there is a very ancient $n \sim m$ alteration, to which the original nasal velar might also be added. This is indicated by the Mo. *simaγul* $\sim$ Tu. *sineк* 'mosquito', Mo. *kömüldürge* 'breast-strap' $\sim$ Tu. *köŋül* 'heart', Mo. *tomuγun* 'cold, head-cold' $\sim$ Tu. *toŋ* 'frozen, very cold', the Hung. *szám* 'number' Tu. *sanï*, Hung. *gyom* 'weed' $\sim$ Tu. *yoŋ* and *χïrχum* 'woman slave' in the Volga inscriptions $\sim$ Tu. *qïrqïn* forms, and cases of Modern Chuvash dialectal change such as : *ïltăn, ïltăm* 'gold' $\sim$ Tu. *altun, purčăn, purčăm* 'velvet' $\sim$ Tu. *barčun*, etc. This phenomenon may be observed even in the very recent Tatar loanwords : Tat. *yakïn* 'approximately, near' $\rightarrow$ Chuv. *yaχăn, yaχăm*, Tu. *yaŋïš* 'fault' $\rightarrow$ Chuv. *yandăš, yomaš-*, Tu. *özen* 'ravine' $\rightarrow$ Chuv. *vasan, vasam*, etc.[7] The final *ŋ* of the PT *tulïŋ* $\sim$ LOB *tïlïm* also belongs to this group.

The PP $*\eta > $ Zyr. *n, ń, m*, Voty. *η, n, ń, m* sound change (1, 2, 4) may have taken place during the independent life of the Permian language after the adoption of the Bulgar-Turkic loanwords. For the relatively late and possibly only dialectal survival of the PP $*\eta$ in Zyryan cf. W. Steinitz *Etymologische Beitrage (II). Zu den syrjänischen Lehnwörtern des Obugrischen* : *ALH* 12 (1962), p. 249.

The Chuvash loanwords in Votyak also underwent the $*\eta > n$ sound change though the latter one was already independent. (Cf. Wichmann, *Tschuw. Lehnw.*, pp. 20–1).

3. *Liquids, rolled sounds*

In PT, the liquids and rolled sounds did not occur in initryl position. In other positions :

PT *-l* > LOB *-l*(> Chuv. *-l*) $\rightarrow$ PP *l* (18)
PT *-l-* > LOB *-l-* (> Chuv. *-l-*) $\rightarrow$ PP *-l-* (20)
PT *-lt-* > LOB *-lt-* (> Chuv. *-lɒ-*) $\rightarrow$ PP *-lt-* (11)
PT *-rl-* > LOB *-rl-* (> Chuv. *-rl-*) $\rightarrow$ PP *-rl-* (3)
PT *-lč* (< *lV č*) > LOB *-ś* (> Chuv. *-ś*) $\rightarrow$ PP *ś* (10)

The disappearance of the PT *-l* in the *-lč-* cluster took place by the spirantization of *l*, cf. PT *ölč-* 'to measure' > Chuv. *viś-*, PT *belčen* 'thistle' > Chuv. *piśen*, PT *qïlïč* 'sword' > Chuv. *χĕś* (< *qïlč*). Traces of the spirantization of *-l-* can be shown in Modern Chuvash dialects : PT *külčen* 'loan' > Chuv. *kivśen, küśen*, PT *altun* 'gold' > Chuv. *ĕvtan, ĕltan*, PT *alqan-* 'to curse' > Chuv. *ĕvχan-, ĕlχan-*, PT *yulčï* 'hair' (Cf. Kăsγarï *yulïč* 'goat's hair') > Chuv. **śevĕ* > *śăś* 'hair', etc. The PP *ś* already shows the disappearance of *-l-* in the case of LOB *χiś*.

4. *Spirants*

PT *-s* > LOB *-s* (> Chuv. *-s*) $\rightarrow$ PP *-s* (1)

As has been already referred to, we have no reason to suppose the existence of an original *-z* final in this word, one which should regularly have become an *-r* in Chuvash. But naturally it cannot be completely excluded that the word existed in LOB for a long time as a loan, though the existence of a possible *-*z* is in any case indifferent from the point of view of the LOB-PP relation. In contrast to the PT *z*, an *-r* is found in the words *χundïri, śir* and possibly in *śărt*. This is the well-known Chuvash Rhotacism.

PT *-š* > *-lč* > LOB *-ś* (> Chuv. *-ś*) $\rightarrow$ PP *ś* (21)

PT *-š* has two correspondences in Chuvash : *-l* and *-ś*. The first correspondence is well known, but the *-ś* correspondence is so frequent and occurs in so many old words that these cases can hardly be regarded as loanwords ; e.g. PT *bāš* 'head' $\sim$ Chuv. *puś*, PT *yemiš* 'fruit' $\sim$ Chuv. *śimeś*, PT *iš* 'thing' $\sim$ Chuv. *ĕś*, PT *yašïm* 'lightning' $\sim$ Chuv. *śišĕm*, PT *qarši* 'to the opposite' $\sim$ Chuv. *χirĕś*, PT *uruš* 'fight' $\sim$ Chuv. *vărăś*, PT *ašla-* 'to churn' $\sim$ Chuv. *uśla-* etc. The phenomenon was already noticed by Poppe ;[8] in some cases, Ramstedt also referred to the *-lč-* origin of the Chuvash *ś* correspondences.[9] Ščerbak[10] explains the Chuvash correspondences partly by the original *š* standing here after a short vowel, and partly by considering these as loanwords. Doerfer[11] rightly refuses to accept this argumentation because *-l* in Chuvash occurs also before short vowels (e.g. PT *qïš* 'winter' $\sim$ Chuv. *χĕl*), and we may add that *-š* occurs after long vowels as well (Cf. PT *iš* as above). Several other unsuccessful attempts have been made to find a morphological solution.

[7] We cannot here go into details concerning the debated question of the origin of the final *-m* in Chuvash. See L. S. Levitskaja, *Zametki o fonetiki čuvašskich govorov*, In: *Voprosy dialektologii tjurkskich jazykov* IV, Baku 1966, pp. 182–185; G. Doerfer, *Türkisch* -n *tschuwaschisch -m* ? : *UAJb* 39 (1967), pp. 53–70 ; E. Hovdhaugen, *Some Remarks on the Development of Nasal Phonemes in Chuvash* : *UAJb* 44 (1972), pp. 174–212 ; G. Doerfer, *Tschuwaschisch* -m < *urtürkisch *-m* (> *gemeintürkisch* -n) : *UAJb* 45 (1973), pp. 174–212.

[8] N. N. Poppe, *K konsonantizmu altajskich jazykov* ; *Doklady Rossijskoj Akademii Nauk* 1924, pp. 43–44.

[9] G. J. Ramstedt, *Einführung in die altaische Sprachwissenschaft I. Lautlehre*, bearbeitet und herausgegeben von P. Aalto, *MSFOu* 104/1, Helsinki 1957, p. 109.

[10] A. M. Ščerbak, *Sravnitel'naja fonetika tjurkskich jazykov*, Leningrad 1970, pp. 86, 163.

[11] G. Doerfer, *Bemerkungen zur Methodik der türkischen Lautlehre* : *Orientalische Literaturzeitung* 66 (1971), cc. 337–339.

According to Pritsak,[13] an original *-ti* individual suffix was added to the original *-l* final and this cluster became *ś* in Turkish and *-ś* in Chuvash through an *-lči* progression. The Chuvash cases where there is an *-l* are forms without a *-ti* suffix. The greatest difficulty of Pritsak's theory is that the Chuvash *-l* ~ ST *-ś-* correspondence does not occur only in the final position but inside words as well (Cf. e.g. PT *eśge* 'donkey' ~ Mo. *elǰigen*, PT *köśek* 'kid' ~ Hung. *kölyök* ~ Mo. *gölüge*); furthermore, the *-ti* suffix in question does not occur in any other phonetic situation. We must consider also that in ST there is an *-lči* final (cf. e.g. *elči* 'envoy'), but this did not change into *-ś*. There is no good reason for the *-ti* to have disappeared from the end of Chuvash words and remained in others. Finally, Pritsak's theory does not explain the Chuvash-Mongolian *-l-* correspondences. Tekin[14] starts from PT *-l-* and he explains the Chuvash *ś* correspondences from an *-lč*. According to him, the ST *-ś* that can be found in such cases has also evolved from an *-lč*. The main difficulty in this view is that in ST the *-lč-* is a common cluster (Cf. *elči* 'envoy'; *alčï* 'misleading, cunning', *balčïq* 'mud', *yalčïq* 'moon', etc.), and only in Chuvash does it become *ś*. Most recently, Doerfer[14] has expounded a view that in the case of the ST *-ś* ~ Chuv. *-ś* correspondence one should start from an original *-l* stem in Chuvash, to which the possessive suffix *-si* was added (PT *bāš* 'head' ~ Chuv. **bāl-si*), with a *-t-* (**baltsi*) being 'inorganically' included, to evolve into *puśĕ* through a **balči* form, of which, subsequently, the *-ĕ*, felt to be a possessive suffix, was dropped. The possessive suffix *-si* has in some cases been retained as *-śĕ*. In categories like the parts of the body, in terms for relationship, the form of the strong adherence of possessive suffixes is wellknown; in several languages, this has led to adding a second possessive suffix to stems which already had one. But, as has already been pointed out, the phenomenon occurs in Chuvash in the interior of words as well (PT *yašïm* ~ Chuv. *śiśĕm*), and can be observed in the case of verbal stems (PT *ašla-* ~ Chuv. *uśla-*), and of substantives of verbal origin (PT *yemiš* ~ Chuv. *śimeś*); therefore, Doerfer's theory cannot be accepted either.

The ST *ś* ~ Chuv. *l*, *ś* correspondences can be explained only if in both cases we start from an *-lč-*. In the one case, an *-lč-* > *l* development took place; in the other case, the *-l-* disappeared by spirantization and an *ś* evolved of *-č-* through regular Chuvash development. In fact, we have here an earlier ST *ś* > Chuv. *lč* correspondence. This is indicated by ancient loanwords of Bulgar-Turkic origin in Mongolian like Mo. *elǰigen* 'donkey' ~ Tu. *eśgek*, Mo. *galči-* 'to level off, to scrape off' ~ Tu. *qaś*(i)-, Mo. *tarbalǰi* 'a kind of hawk' ~

[13] O. Pritsak, *Der 'Rhotazismus' und 'Lambdazismus'*: *UAJb* 35 (1964), pp. 337–349.

[14] T. Tekin, *Zetacism and Sigmatism in Proto-Turkic*: *AOH* 22 (1969), pp. 51–80.

[14] G. Doerfer, *Bemerkungen* . . . , pp. 337–339.

Tu. *taz baśï* 'bald headed', and the Russian *alčiki* 'dice' of Bulgar-Turkic origin ~ Tu. *aśuq*. Though in Hungarian antiquity an inorganic *l* frequently occurs (e.g. OH *úlcs*, *dcs* ~ PT *ayačči*, *bölcs* ~ PT *bügüči* etc., there is absolutely no proof that the *-l-* of the Hung. *bölcső* (~ PT *bešik*), *gyümölcs* (~ PT *yemiš*), OH *bulcsassa*, *bocsát*, *búcsú*, etc., (~ PT *bošat-*, *bošan-*) is also of such origin. In fact, in these cases there is an *ś* in ST and not a *č*; therefore, this category is to be isolated from the others and may be linked to those items where there is an *-lč-* for the ST *ś*, or its Modern Chuvash variant, the *-ś*.[15]

Thus the final consonant of the LOB *tüś*, in contrast to the ST *tüš*, can be explained in the same manner as the final consonant of *kiś*: both have evolved directly from an *-lč*.

5. *Affricates*

PT *č-* > LOB *č-* ~ *ś-* (> Chuv. *ś-*) → PP *ć-*, *ś-* (3)
PT *-č-* > LOB *-ć-* (> Chuv. *-ś-*) → PP *-ć* (9)
PT *-č* > LOB *-ć* (> Chuv. *-ś*) → PP *-ś* (22)
PT *-lč* > LOB *-ś* (> Chuv. *-ś*) → PP *-ś* (10)
PT *-š* > *lč* > LOB *ś* (> Chuv. *-ś*) → PP *-ś* (21)
PT *y-* > *ǰ-* > LOB *ś-* (> Chuv. *ś-*) → PP *ś-* (16, 17, 18, 19)
Persian *-ǰ-* > LOB *ǰ* ~ *ź* (> Chuv. *-ź-*) → PP *-ź-* (15)

As it can be seen, the PT affricates have a double form in LOB and in PP, which reflects it: affricates and spirants. The spirant correspondence of the voiced initial affricate is particularly remarkable. It deserves special attention, because in the VB inscriptions, there are expressly only affricate correspondences: *ǰāl* 'year' (~ PT *yāš*), *ǰerim* 'twenty' (PT *yigirmi*), *ǰiyeti* 'seven' (PT *yeti*) *ǰür* 'hundred' (PT *yüz*), *köčrüwi* 'migrated away' (PT *köč-duq-i*), *učim* 'third' (PT *üč* 'three'), etc. From this Poppe (*Čuvaši*, pp. 26–28) and recently Raun (*Chuv. Borr.*, p. 44) have drawn the conclusion that the Bulgar-Turkic loanwords of PP originate from a time later than the inscriptions, i.e. later than the 14th century. But this view neglects the fact that here one has to take into account several dialects. This is clearly indicated by the loanwords in the Hungarian language that are of the Chuvash type where besides the affricate correspondences (*gyom* 'weed', *gyümölcs* 'fruit', *disznó* 'pig', *csepű* 'tow', *csalán* 'thistle', etc.) there are also words containing spirants (*szél* 'wind', *szűcs* 'furrier'; *sarló* 'sickle', *sátor* 'tent', *kos* 'ram', *késő* 'late', *kőris* 'ash-tree', etc.). Doerfer[16] who considers the Chuvash *ś-* correspondences rather late, regards

[15] Recently Ligeti expressed the view that Hung. *ő* in place of ST *ś* is due to a Hungarian *ő* < *ś* development, see L. Ligeti, *Régi török eredetű neveink* [Old Hungarian Names of Turkish Origin]: *MNy* 74 (1978), pp. 257–274.

[16] G. Doerfer, *Bemerkungen* . . . , p. 332.

the Hungarian *sz-* correspondences as erroneous without taking into account the PP parallels. To explain the PT affricate ~ Hungarian spirant, several theories have been advanced ;[17] one sure thing is that this correspondence is older than the inscriptions and reflects the same duality as we see in PP. We should note that in some LOB dialects the difference was just in the chronology of the sound changes.

Vowels in the first syllable

PT *a* > LOB *å* (> Chuv. V. *o*, Chuv. A. *u*) → PP *a* (1, 3, 7), *ǫ* (22)
PT *o* > LOB *u* (> Chuv. V. *ŏ*, Chuv. A. *ă*) → PP *u* (12, 14, 15)
PT *u* > LOB *ŭ* (> Chuv. V. *ŏ*, Chuv. A. *ă*) → PP *u* (13)
PT *ï*/*i* > LOB *ĭ* (> Chuv. *ĕ*) → PP *i* (4 : PP *i* > *ɛ*, 5, 10)
PT *ä* > LOB *ä* (> Chuv. *a*) → PP *a* (2), *ɛ* (9)
PT *e* > LOB *e*, *i* (> Chuv. *i*) → PP *i*, *ɨ*, *e* (17, 18)
Pt *ü* > LOB *å̈* (> Chuv. V. *ŏ̈*, Chuv. A. *ĕ̈*) → PP *u* (19, 21), *ǫ̇* (19), *ǫ* (11)

The *å̈* of the first syllable of LOB **gåmbä* of Russian origin (otherwise LOB *ü* < PT *ŏ*) became *ǫ* in PP. The PT *u* become *ï* under the influence of the *ĭ* of the second syllable in the word *ïïlïm*, and its PP correspondence is also *ɨ*.

Though the scarcity of the data does not permit extensive conclusions, yet certain trends are evident for the whole system. The most important of these is that the entire Chuvash phonetic system had become more closed.[18] The open labials had become more closed. The *o* > *ǫ* > *u* development together with the *ŏ* > *ǫ̈* > *ü* change was in its third phase at the time of the PP adoptions. In the meantime, the closed labials had been reduced : *u* > *ŭ*, *ü* > *å̈*. But this reduction was naturally accompanied by a process of opening ; therefore, the open and the close labials coincided at later stages of development, and today, are found in the Viryal dialect of Chuvash as an *ŏ*, and an *ŏ̈*. Subsequently, both sounds became delabialized in Anatri and in the literary languages based on it. Presumably, this is also the consequence of reduction, as in the forming of reduced vowels the lips are also more relaxed. The development of the PT *a* > LOB *å* was also part of the process of closing. The labial *å* thus evolved was more closed than its earlier illabial predecessor. The correspondence of this sound in Zyr. *a* ~ Voty. *u* can be explained according to E. Itkonen (*Bemerkungen*, p. 267) in etymologies 1 and 3 by the PP *o* or *ǫ*

[17] On these theories see G. Bárczi, *Le traitement de š et de č turcs dans les mots d'emprunt turcs du protohongrois*. In: *Studia Turcica*, Ed. by L. Ligeti, *BOH* XVII, Budapest 1971, pp. 39–46.

[18] Cf. G. Doerfer, *Ein Kompendium der Turkologie* ; *UAJb* 40 (1968), p. 244 ; E. Itkonen, *Bemerkungen*, p. 272.

that substitutes for the LOB labial *å*, which becomes *a* in Zyryan under the influence of the *a* in the second syllable (and of the main stress in PP), whereas in Votyak, the *u* regularly evolved from *o* or *ǫ*. The word *χån* contradicts this view, in which E. Itkonen indicates a long *å*. As has been seen above, in this word we have definitely to presume a short *å* on the LOB level, either as a continuation of the original short *a*, or as a result of the shortening of the original long *ā*. It is therefore, more probable that in PP it was the OB *å* that was replaced by *a* in a period when no such sound existed in the system of PP phonemes. The PP *a* > Voty. *u* sound correspondence cannot be traced back to one single cause. The PP *a* was retained in Zyryan, whereas in Votyak there was a process of closing : **a* (> **å*) > **o* > *u* under the influence of the vowel of the second syllable (bearing the main stress) in the words *udɨs* and *śurlo*. In the Voty. *kun* the **a* (> *å*) > *o* > *u* change can be explained by the influence of the initial *k*. (Lytkin, *Ist. vok.*, p. 170). Lytkin (*loc. cit.*) has demonstrated the Zyr. *a* ~ Voty. *u* correspondence in 24 Permian words besides the Chuvash ones ; among them, there are several of Iranian origin, where there was an *a* as well.

The PT *ï* was mainly fronted and became reduced on the process of becoming closed (> *ĭ*), whereas in other cases the velar set was retained (> *ŭ*) and it is present either as an *ĕ*, or an *ă* in the Modern Chuvash dialects. The *ĕ* and *ă* in the Modern Chuvash orthography and in the more up-to-date transliterations, and the sounds indicated by the *ə*, *ŏ* symbols used by Paasonen are equivalent to phonetically central, reduced sounds of medial tongue position.

The PT *é* had become *i* again by the closing process, presumably through an *ɛ* stage (Cf. E. Itkonen, *op. cit.*, p. 261). The Voty. *śel* besides the *śil* indicates that the former was adopted by PP prior to the LOB *ɛ* > *i* (see Uotila, *Lehnw. Perm.*, p. 2 ; E. Itkonen, *Bemerkungen*, p. 261). The PT *ä* could not yet have been an *a* in the period of the LOB-PP contacts, for otherwise this development would have coincided with that of the original *a* sound. The PP *a* can be explained by sound substitution. On the LOB *ä* ~ PP *a* sound substitution, see E. Itkonen, *Thesen*, p. 245; *Bemerkungen*, p. 270. Here it should be noted that we have no reason to doubt the existence of the PT *ä:e* opposition; but Chuvash deviates in many cases from the picture that can be reconstructed on the basis of the Turkic languages and their linguistic relics.[19] This diffe-

[19] Following Poppe (*Türkisch-tschuwassische vergleichende Studien* : *Islamica* 1, 1925, pp. 410–414) it is generally accepted that the PT open *ä* had become *a* in Chuvash, and the closed PT *e* had become *i*. This has, in fact, taken place in a considerable number of words, but the divergent data call for caution: PT *ešik* (Az. *ešik*, Tkm. *išik*) ~ Chuv. *alăk* 'door' (< **ašik*), PT *iš-* (Az. *éš-*, Tkm. *íš-*) ~ Chuv. *ăl-* 'to plough virgin soil' (< **äš-* 'to dig up'), PT *kéč-* (Az. *kéč-*, Tkm. *geč-*) ~ Chuv. *kaś-* 'to pass over', (**kïč-*), or PT *äz-* (Az. *äz-* Tkm. *ez-*) ~ Chuv. *ir-* 'to squash, to soften' (< **èz-*), PT *äriš-* (Az. *äri-*, Tkm. *ereš-*) ~ Chuv. *irel-* 'to melt' (< **èriš-*), etc. These facts reflect LAT dialectal phenomena.

rence may have been particularly characteristic of some Bulgar-Turkic dialects. Thus it is that in Modern Chuvash such a form corresponds to the word *bäŋ*, in which the vowel goes back to a closed *é*.

The vocalism of the Volga Bulgarian inscriptions can be interpreted only with great difficulty due to the limitations of Arabic script. But the *å*, *e* sounds are definitely written in each case along with the *keph* that is used in words of the front vocalic set: *sökir* 'eight'. The sound *e* has not yet become *i*, e.g. *eki* 'two'. The PT *a* is written in each case with *aleph*, or *fatha*: *altï* 'six', *ayγï* 'month of', *baïuwi* 'to take leave, to die', which naturally does not mean that this *a* sound could not have been a labial *å*, but it definitely means that it was not *o* or *u*.

The PP representation of the LOB *ü* is rather heterogeneous: *u*, *ǫ*, *ó*. This may be explained by the fact that in PP there was no *ü*, therefore it was replaced by sounds nearest to it.

The Kipchak Turkic languages, such as Modern Tatar and Bashkir which had come into close contact with the Volga-Bulgarian language changed their vocalism under the impact of Volga Bulgarian.

PT	Tat. Bashk.	PT	Tat. Bashk.
a	*å*	*ï*	*ĭ*
e, *ä*	*i*	*i*	*ĕ*
o	*u*	*u*	*ŏ*
ö	*ü*	*ü*	*ŏ*

Here the reduced labials are more closed than the open labials of the Turkic languages. As it can be seen, the coincidence of *e* and *ä* in the Volga-Kipchak languages had already taken place by the beginning of the LOB influence (later on, a secondary *å* evolved in the first syllable mainly from *a* after *y*-, and in loanwords). In respect of its other features, this system faithfully reflects the LOB vocalism compared to which Modern Chuvash was a further development.

The time of the development of the Volga-Kipchak vocalism is controversial.[20] At any rate, the Mongolian loanwords of the Volga-Kipchak languages show that this phenomenon took place after the 13th or the 14th centuries, e.g. Mo. *bosaγa* 'threshold' → Tat. *busaga*, Mo. *bödüne* 'quail' → Tat. *büddänä*, Bashk. *büďänä*, Mo. *delbege* 'halter' → Bashk. *dilbegä*, etc.

In our material, there is no example of the PP representation of the PT *a* > Chuv. *ĭ* development recently dealt with by E. Itkonen (*Bemerkungen*) in detail. According to Ramstedt[21] we have to presume the *a* > *e* > *ę* > *ĭ*

[20] Cf. G. Doerfer, *Bemerkungen* . . . , pp. 329–330.

[21] G. J. Ramstedt, *Zur Frage nach der Stellung des Tschuwassischen*: *JSFOu* 38 (1922), p. 7.

according to Doerfer[22] the *a* > *ę* > *ĭ* development and E. Itkonen (*loc. cit.*) also supposes the *a* > *ę* > *ĭ* development on the basis of the Zyryan and Votyak correspondences. Before deciding on the question, we should note that though in Yakut one frequently finds an *ĭ* correspondence for the PT *a*, and finds it occasionally in other Turkic languages, and we also find an *ĭ* correspondence in some Bulgar-Turkic loanwords in Mongolian and Hungarian, these *ĭ* correspondences agree only in the rarest cases. Such an exception is e.g. PT *yaz-* 'to write', Chuv *ĕĭr*, Mo. *jiru-* and Hung. *ír-*. This phenomenon is very frequent in the Arabic-Persian loanwords in Chuvash: Ar. *masẖara* → Chuv. *mĭskara* 'ridicule', Ar. *ẖarǰ* → Chuv. *χĭrśă* 'tax' (→ Voty. Y *körś*, S *kerś*), Ar. *ẖazna* → Chuv. *χĭsna* 'treasury'. This development can be observed also in quite fresh loans such as Tu. *balčïq* → Chuv. *pĭlčăk* 'mud'. In some Chuvash dialects, an *a* > *u* ~ *ĭ* alteration can also be observed: Chuv. V and A *pĭr-* 'to go' ~ Morgauš (recorded by Róna-Tas), *pur-*, Chuv. V and A *pĭl* 'honey' ~ Rika (recorded by Róna-Tas) *pul*, etc. All this again clearly indicates that we are faced with a dialectal phenomenon which is presumably related to the labialization of *a*, and, in contrast to the more general labial *å* variant, is the residue of an illabial, sporadic and dialectal *a*. The Arabic illabial *a* was part of this development and subsequently the illabial *a* became *ĭ* in Chuvash along with the process of closing. This process definitely went through an *ę* phase and perhaps later on, through an *ę* stage. It is not totally unlikely that the *-e-* of the Hung. *gyertya* 'candle' can also be explained in this way, rather than in terms of the dissimilating effect of the *a* occurring in the second syllable of inflected forms (*TESZ*, cf. *alma*, *almát*).

The beginning of the closing process of the Chuvash vowel system would be difficult to specify. Certainly, the phenomenon already existed in some of the ancient Bulgar-Turkic loanwords in Mongolian: PT *bodu-* ~ Mo. *budu-* 'to paint', PT *koč* ~ Mo. *quča* 'ram', PT *hökü̈z* ~ Mo. *hükör* 'ox', PT *töŋke* ~ Mo. *tüngke* 'overgrowth of feather grass', etc. In order to explain such correspondences, we have no reason to propose a triple labial opposition (*o* : *ǫ*; *u*) as is done by Doerfer (*TMEN* I, p. 99): we should rather see it as the earliest signs of the process of closing in Bulgar-Turkic. It is highly probable that by the time of the Hungarian–Bulgar-Turkic coexistence, this process has yet further advanced; consequently, our earlier views on the vocalism of the Bulgar-Turkic loanwords in Hungarian are to be revised.

For an evaluation of the process of closing, a more minute study of the LOB adoption of the Slavic *gǫba* would be important. This word was definitely adopted by LOB prior to the Eastern Slavic denasalization in the 10th century. The *ǫ̆* and perhaps *ü* that may be supposed on the basis of Permian and the possible *ü* based on Tatar definitely show the process of closing. But

[22] G. Doerfer, *Ein Kompendium* . . . , p. 244.

It would be difficult to say if the Slavic *ǫ* was adopted by the borrowing language as *ō* or *ǭ*. The latter appears the more probable.

By the period of the LOB-PP contacts, the LOB set of vowels was already definitely an entire stage more closed, and the process had become more systematic.

Our material does not offer direct information on the question of the long vowels of LOB.

Vowels not in the first syllable

The PT vowels show significant differences in LOB depending upon whether they occur in the first or the following syllables. Stress relations definitely play a role in this phenomenon. The main characteristic of present Chuvash stress relations is that the stress of the word can fall on a reduced vowel only if there are only reduced vowels in the word. If a word consists of only fully formed vowels then the stress is on the last syllable. If this is a reduced one, then the full vowel preceding it carries the stress. This system is obviously secondary and is related to the development of the reduced vowels. The history of the development of Modern Chuvash stress relations is totally unknown.

In Modern Chuvash the open vowels in non-first syllables have retained their original quality; the closed ones have become reduced.

The regular continuity of the LOB *a* in non-first syllables is the PP *a* > Zyr. *a*, Voty. *o*(< **a*) (3, 15). On the Zyryan sound hiatus occurring in the latter word, and on the *ę/e* vowel see p. 9. The PP *ɨ* corresponds to the LOB *ĭ* in the Zyr. word *tĭlĭm* (20). In one example (12) there is Zyr. *∅* ~ Voty. *i* in the place of the LOB *i* in absolute final position. The LOB **ă* was usually replaced by *a* in PP > Zyr. *a*, Voty. *o* < **a* (8, 11). In one case (6) there is Zyr. *∅* ~ Voty. *ɨ/i* < PP *i* in the place of the final LOB **ă* sound. The LOB **ɛ* or **ă* → PP **ɛ* may be supposed for the second syllable of etymology No. 4. In word No. 9 the PP *∅* corresponds to the LOB *i* sound (see also below about this word). There is an example (19) also for the correspondence of the LOB *ĭ* and **e* > PP *ɨ/i* > Zyr. *i*, Voty. *ɨ*. In Zyryan, the regular form would be not *śuri* but **śur* reflecting the disappearance of the final vowel (see also below). — The *i* of the third person possessive suffix is represented by *i* in PP (13).

From the point of view of phonology, and primarily of the relative chronology of certain sound changes in the Permian languages, the behaviour of the absolute final vowels of LOB in the Permian languages is very conclusive. Contrary to Lakó (*Perm. ny. szóv.*, pp. 55—6), the Zyryan word *kęć* ~ Voty. *keć* 'Ziege', does not go back to the LOB **kăčă*, as it was earlier supposed (Wichmann, *op. cit.*, p. 73; Lakó, *loc. cit.*) but to the form **kăči*. It has no significance from the point of view of dating the disappearance of the PP *ă* in

the Proto-Permian period. But this word may be decisive in defining the upper chronological limit (the end of the Proto-Permian period — 9th century?) of the PP **i* (and perhaps **ɨ*) > Zyr.—Voty. *∅*. (On the disappearance of the PP **ɨ/*i* in both languages, see Lakó, *Perm. ny. szóv.*, p. 52). On the basis of the Zyr. *gob* ~ Voty. *gubɨ* 'Pilz' ← LOB *gŭmbă* (6) one may suppose that the sound change of the final PP *ă* > *i* was completed at the time of the LOB-PP contacts, though it is even more possible that the LOB *ă* was replaced by an *i* after the PP *ă* > *i* sound change. The PP *ɨ/i* ← LOB **i*, and **ă* were retained in Votyak as indicated by two words (6, 12), but in Zyryan they disappeared (cf. Wichmann, *Tschuw. Lehnw.*, pp. 35, 129; Lakó, *op. cit.*, pp. 13, 20). In these words the disappearance occurred after the termination of the LOB-PP contacts (10th century) in an already independent Zyryan language. There is one word in which there is a final vowel in Zyryan as well: *śuri* (19). This word may have reached Zyryan after the disappearance of the PP *ɨ/i*, perhaps with P mediation (Cf. Lakó, *op. cit.*, p. 63). This is indicated by the fact that in the Permian languages a double sound representation (Zyr. *u*, Voty. *e* < **ę* < **ǫ*) corresponds to the LOB **ŭ*. According to Lakó's conclusion (*op. cit.*, p. 56) Proto-Permian *a* was retained both in Zyryan (*a*) and in Votyak (*a*, *o* < **a*). Today, naturally, this statement can be accepted only with reservations: the Proto-Permian *a* could be retained only in words of the Permian period; its survival in Finno-Ugrian or Finno-Permian words can be supposed only on the basis of a few highly doubtful etymologies.[23] The LOB **a*/**ă* → PP **a* (→ Zyr. *a*, Voty. *o* < *a*) has been retained in both Permian languages (3, 8, 11, 15). It is true, however, that in three examples (3, 8, 11) the *a* (> *o*) stands behind a consonant cluster, i.e. in phonetic situations where the disappearance of *a* could not have been possible.

The historical background of the contacts

We have to conclude on the basis of the above facts that the LOB loanwords of PP reflect several LOB dialects. The loanwords permit us to reconstruct what is in some respects a slightly more advanced stage of phonetic development than we find suggested by the Bulgar-Turkic loanwords in the Hungarian language. And this brings us to the question of when it was that LOB came into contact with PP.

The arrival of the Volga Bulgars in the central Volga region is still a controversial question. The long-standing orthodoxy goes back to Kunik's[24]

[23] Cf. É. Korenchy, *A zürjén abszolút igető problémájáról* [Zum Problem des absoluten Verbalstammes im Syrjänischen]: *NyK* 73 (1971), pp. 157—158.

[24] *Izvestija Al-Bekri i drugich avtorov o Rusi i slavjanach. Časť 1. Stati i razyskanija A. Kunika i barona V. Rozena. Priloženie k XXXII-mu tomu Zapisok AN No. 2.* SPbg. 1878, pp. 155—156.

view which has spread on Wichmann's authority (*Tschuw. Lehnw.*, p. 142). Kunik refers to Jordanes (at about A. D. 551), who enumerates the peoples of the Orient subjugated in the 4th century by the Goth King Ermanarich, and lists among them the Merens, Mordens and Imniscaris, but not the Bulgars. From this Kunik draws the inference that the Bulgars were not yet in the Volga region in the mid-6th century, but migrated here only later. Paasonen (*loc. cit.*) has justly found this argument insufficient. According to the historical sources,[25] the Khazars had terminated the Onogur-Bulgarian Empire of the Kuban in around 650. The separation of the Onogur Bulgars began only subsequently. One of the groups migrated upwards along the Volga, and though remaining under Khazar supremacy, yet escaped the direct pressure of the Khazars. Another group remained in the Caucasus. A third migrated to the neighbourhood of Byzantium and founded the Bulgarian Empire of the Danube where they settled down in around 680.

According to the archaeological finds, the Bulgarian tribes moving northward in the second part of the 7th century reached the central Volga, the territory between Kazan and Kuybyshev, late in the second half of the 8th century; the development of the Volga Bulgarian Empire can thus be dated around the end of the 8th, and the beginning of the 9th century. At the time of Ibn Faḍlān (922) this Empre was flourishing.

Thus the beginnings of the PP–MB contacts can be put at the second part of the 8th century; intensive contacts should probably be counted with from the early 9th century. This chronology completely agrees with Wichmann's, (*Tschuw. Lehnw.*, pp. 29, 145—147) who dates the oldest layer of Chuvash loanwords in the Permian languages to the 8th or 9th century. This view is shared by Lytkin (*Drev. tjurk. élem.*, pp. 131—142) and Rédei as well.[26]

[25] Cf. K. Czeglédy, *Nomád népek vándorlása Napkelettől Napnyugatig* [The Wanderings of Nomadic Peoples from East to West]: *Kőrösi Csoma Kiskönyvtár* 8, Budapest 1969, p. 108.

[26] K. Rédei, *Gibt es sprachliche Spuren der vorungarisch-permischen Beziehungen?*: *ALH* 19 (1969), pp. 321—334, id., *Die syrjänischen Lehnwörter im Vogulischen*. Budapest 1970, p. 64. The general consensus among scholars studying the ethnic history of the middle Volga-region (A. P. Smirnov, Vorobev, Dmitriev, Kachovskij, Denisov etc.) is that we have no cause to seek a significant Turkic element here prior to the 8th century Bulgarian immigration. On the contrary, maintains A. Ch. Chalikov (see e.g. *K voprosu o načale tjurkizacii naselenija Povolž'ja i Priural'ja: Sovetskaja Ėtnografija* 1972/1, pp. 100—109) Turkic groups had migrated to the region in the 3rd or 4th, and the 5th or 6th centuries as well. We do not regard ourselves competent to judge Chalikov's archaeological arguments, but we are of the opinion that the fact that certain changes are reflected by the archaeological finds of the region under survey, with parallel changes indicated by the Hunnic finds of South Siberia and subsequently of South Russia, does not in itself prove the immigration of a Turkic people. These contacts could have been inter-ethnic ones as well, to say nothing of the fact that the Turkic ethnic identity of

the Huns, taken for granted by Chalikov, cannot at all be verified. Chalikov refers to Lytkin as well, who says, according to Chalikov, that the Chuvash loan words in the Permian languages originate from the 4th or 5th century. Lytkin, in the place quoted by Chalikov (*Jazyki narodov SSSR. 3, Finno-ugorskie i samodijskie jazyki*. Moskva 1966, p. 258) as elsewhere, clearly puts the beginnings of the linguistic influence of the Volga Bulgarians after the 7th century and regards the separation of PP into the Zyryan and Votyak branches to be the consequence of the impact of the Volga Bulgarian Empire, dating the process to the 9th or 10th century. Chalikov's attempt to separate the Chuvash people from the Volga Bulgarians and his effort to date their immigration to the 4th or 5th century cannot be accepted.

The phonological conclusions to be drawn from the LOB loanwords in PP are in complete harmony with this view. Moreover, the LOB loanwords in PP reflect a phase of LOB development for which we have no other source. The Volga Kipchak languages and the Chuvash-type loanwords in Cheremiss reflect two later stages of development. The late Chuvash loanwords in Votyak and Permyak are also from a later stage of development.

II. The Bulgarian Loanwords in the Permyak Dialect of Zyryan

In the following we are going to deal with the problems of the Bulgar-Turkic loanwords adopted by the southern dialect (Permyak) of Zyryan and by Votyak after the dissolution of the Proto-Permian linguistic unity. The restriction of the subject is justified by the fact that the words belonging to this group constitute an independent complex different from the Proto-Permian loans or those of the already separated Votyak language. The Chuvash elements of the P dialect of Zyryan and of Votyak belong to a later layer adopted after the 10th century (Lakó, *Perm. ny. szóv.*, p. 63). Since Proto-Permian unity came to an end in the 10th century, we cannot speak of common adoptions, Lytkin's view notwithstanding (*Drev. tjurk. élem.*, p. 138). Starting out from this postulate, we want to study the problem of whether the words in question can be regarded as Chuvash → Permyak and Chuvash → Votyak (Proto-Votyak) loans borrowed at the same time but independently, or whether they are indeed borrowings from a Bulgarian (Chuvash) → Votyak → Permyak direction.

1. Z y r. (Batalova, publ. by Lytkin, *Drev. tjurk. élem.*, p. 136) P *ćeber* : *ć. mort* 'chvastun, krasivyj, gordyj', *ćeber-ćeber munis* 'pošel gordo, vysoko podrjav golova, chvastajas', *ćeber* 'razborčivyj, brezglivyj'. V o t y. (*Wichm.* p. 113) G., Uf. *ćeber*, S, MY *ćeber* 'schön, anmutig, hübsch, gut, (G auch) schnell (Adv.), (MU auch) Schönheit, (Y auch) gut (Adv.)', (Munk.) S *ćeber*, Uf. *ćeber*, 'schön, hübsch'. — PV **ćeber*.

← ? LOB *čebär*; Cf. Chuv. *čiper* 'beautiful, good' (Sirotkin).

The Chuvash word is a Tatar loan because of the initial *č-* (Cf. Tat. *čiber*, Bashk. *siber*). The earliest occurrence of the word is in the Codex Cumanicus; Grønbech[27] and Poppe[28] regard it to be of Mongolian origin. But this is contradicted by the widespread use of the word in Turkic (Cf. Räsänen, *Etym. Wb.*, p. 101) and further, by the fact that it has no etymology in Mongolian either, and finally, by the Tkm. *čeper*, the *-p-* of which cannot be explained on a Mongolian basis. Besides the late loan *čäbär*, there is also a *säbär* form in Yakut, which is regarded by Kałużyński[29] as an early loanword. The question of Mongolian origin is important in this case because it could give us an idea of the time of its adoption. Naturally, the possibility cannot be excluded that the word reached the Volga region through Mongolian mediation, but we cannot take it for granted.

According to Wichmann (*loc. cit.*), the Votyak word may come from Tatar. Either it reached Votyak and, through Votyak, Zyr. P directly; or it did so through Chuvash mediation prior to the *e* > *i* change of the Volga-region.

Wichmann, *Tschuw. Lehnw.*, p. 113 (Voty.); Lytkin, *Drev. tjurk. êlem.*, p. 136 (Zyr.).

2. Z y r. (Wuo.) P *kab* 'Leisten für Bastschuhe'. Voty. (Wichmann, *Etym. Perm.*, p. 130) *kab* 'id.' (Munk.) S, K *kab* 'Leisten' – PV **kab*.

← LOB **käp* or **käb* > Chuv. *kap* 'exterior, form; shape, whole' (Sirotkin) ~ PT **käp*, **kip* (Räsänen, *Etym. Wb.*, p. 233, Clauson, p. 686) Cf. also Chuv. *pek*, dial. *kap* 'similar'.

The Turkic data (Tkm. *gäp*, Yak. *kiäp*, Kazk. *keyip*, etc.) the early Slavic *kap* and the Hung. *kép* refer to a PT *käp* form, and the Chuv. *kap* can also be explained by it. Some early Turkic linguistic sources (e.g. Hsüen-tsang letter 2111: *kip*, Kāšγarī *kip*) allow a variant with a closed *ĕ* and perhaps even an *i*. But the *-b* final proposed by several scholars is not unambiguously supported by the data, and its regular *-v*, *-y* consequences are also missing. Theoretically, the Voty. *-b* (→ Zyr. P. *-b*) could be the result of sporadic voicing that had taken place in Votyak, but in such cases *-p* would be expected at least in some dialects. To the Zyr. P, and Voty. meaning of the word cf. Kāšγarī's 'mould'.

Wichmann, *Etym. perm.*, p. 130; WUO; Lytkin *Ist. vok.*, p. 153, *Drev. tjurk. êlem.*, p. 132. — Erroneously: Wichmann, *Tschuw. Lehnw.*, p. 81, (Voty. ← Tat.)

[27] K. Grønbech, *Komanisches Wörterbuch*, København 1942, p. 74.

[28] N. Poppe, *Die mongolischen Lehnwörter im Komanischen*. In: *Németh Armağanı*, Ed. by J. Eckmann, A. S. Levend, M. Mansuroğlu. Ankara 1962, p. 335.

[29] St. Kałużyński, *Mongolische Elemente in der jakutischen Sprache*, Warszawa 1961, p. 110.

3. Z y r. (WUo.) P *kena·k* 'Brudersfrau', (Wied.) 'Schwägerin'. V o t y. (*Wichm.* p. 71) Uf., MU, Y, M, G *ken* 'Schwiegertochter, Schnur, Schwiegertochter (wird so von den älteren Familienmitgliedern genannt) (Y), junges Weibchen überhaupt (welches jünger als der Anredende ist) (MU, Y, M)', (Wied.) *kenak* 'ältere Schwiegertochter, Brudersfrau', (Munk.) S *kenak* 'Frau des älteren Bruders'. — PV **ken* and **kenak*.

← LOB **ken* > Chuv. *kin* 'daughter-in-law, bride' (Sirotkin) ~ PT *kelin* (Clauson, p. 719, Räsänen, *Etym. Wb.*, p. 250).

The Chuv. *kilen* quoted by Egorov (*Êt. sl.*, p. 113) if it exists at all, is a recent Tatar loanword but presumably lives only among bilingual people. The Chuvash word can be explained from a form with a possesive suffix, after the disappearance of *-l-*: **kelini* > **kelni* > **keni* > **kinĕ* ~ *kin* (Cf. *qīlïc* > *qīlč* > *qīč* > *χēš* 'sword').

The Voty. *kenak* is a compound already obscured. Its posterior constituent is: (Wichm.) G *akî*, *ak*, Y *ak*, *ako* 'ältere Schwester', (Munk.) S *ak* 'id.'. This is also of Chuvash origin (Cf. Uotila, *FUF* 23 (1935), p. 98, Wichmann, *Tschuw. Lehnw.*, p. 38) ← LOB **äkä* > Chuv. *akka*, *aki*, *akam* 'elder sister, aunt, step sister' (Ašmarin, Sirotkin 1961) ~ PT **eke* (Clauson, p. 100; Räsänen, *Etym. Wb.*, p. 38).

Wichmann, *Tschuw. Lehnw.*, p. 71; Lytkin, *Drev. tjurk. êlem.*, p. 133.

4. Z y r. (Lytkin, *Drev. tjurk. êlem.*, p. 133) P *koba*, (Lytk.) Ya. *ko·ba* 'prjalka'. V o t y. (*Wichm.* p. 75) G, M, Y, Uf. *kubo* 'Spindel' (Munk.) K *kubo* 'Flachshechel'. — PV **koba*.

← LOB **χāba* or MB **χoba* ~ PT *qaba* ~ *qāba* 'thick, protruding (mainly hair, beard, feather, etc.)' (Clauson, pp. 580–81, Räsänen, *Etym. Wb.*, p. 215). The word is missing in Modern Chuvash. Presumably, the Chuv. *yupa* 'pillar, memorial pillar of the dead, post' (Ašmarin) can be linked with it, which would be the regular phonetic correspondence of the PT **qāba* reconstructed on the basis of the Tkm. *gāba*. If so, its semantic development is 'sign standing out of tomb' > 'tomb pillar', but this is less certain. A word identical in meaning to that of the Zyr. P and the Voty. exists only in Tatar and Bashkir (*kaba* 'spinning wheel') and in Kazakh (*kaba* 'hackle'); in the other Turkic languages, it means a protruding, bushy thing. This meaning also exists in Tatar where today the two words are felt to be homophonic. Therefore, from the point of linguistic geography, we can surely speak of a word of the Volga region and possibly of Volga Bulgarian origin. Since the first *-a* of the Tatar word is also labial, a Tatar origin cannot be excluded.

The Zyr. P *o* which appears in PP loans instead of *a* indicates borrowing from Votyak.

Wichmann, *Tschuw. Lehnw.*, p. 75 (Voty.); Lytkin, *Ist. vok.*, p. 82 (Zyr.—Voty.); *Drev. tjurk. êlem.*, p. 133; Fedotov, *Ist. svjazi II*, p. 155; Räsänen, *Etym. Wb.*, p. 215.

5. Zyr. (Wied.) P *sugoń* 'Zwiebel'. Voty. (*Wichm.* p. 93) M, Uf., Y *sugon*, G *sugon* : *kurʒit s.*, (Munk.) S, K *sugon* 'id.' — PV **sogan* or (in the case of borrowing from Tatar) **sugan*.

← ? LOB or MB *sōγan* > Chuv. *suχan* 'onions' (Sirotkin, 1961) ~ PT *sōγaṅ* (Clauson, p. 812 ; Räsänen, *Etym. Wb.*, p. 425).

In Kāšγarī, the word is with a long *ō*, but the Turkmen is short (*sogan*). On the basis of the Karachay-Balkar *soχan* we may presume that the PB form may have been **soqan*, but the *-χ-* in LOB and in Chuvash had definitely become voiced. In view of the fact that the Tatar form of the word is *sugan*, a Tatar origin cannot be excluded either.

The phonetic form of the Zyr. P indicates borrowing from Votyak. One would expect a **sogan* in Permyak, and a *sugan* phonetic form if it was a case of borrowing from Tatar. The adoption along a Voty. → Permyak direction may have taken place relatively late, after the Votyak **o* > *u* change in initial syllables. The final *ń* of the Zyr. P *sugoń* is unusual (Cf. Wichmann, *loc. cit.*). If the Zyr. P word comes from Tatar then the borrowing took place after the Voty. *a* > *o* change, too.

Wichmann, *Tschuw. Lehnw.*, p. 93 ; Raun, *Chuv. Borr.*, p. 20, 42 ; Lytkin, *Drev. tjurk. élem.*, p. 133.

6. Zyr. (WUo.) P *susa* 'Weberschiffchen'. Voty. (Munk.) S, K *suso* 'id'.

← LOB **susa* < PT *susaq* ~ *susyaq* 'scoop' < *sus-* 'to scoop up' (Clauson, p. 856, Räsänen, *Etym. Wb.*, p. 434).

The similarity of form gave rise to the naming of the shuttle (see German *Weberschiffchen*, R *čelnok*). The modern Chuvash data are : *asa, osa, aso* (Ašmarin, Sirotkin), *sasa, sosa* (Ašmarin). The disappearance of *s-* is a regular and recent phenomenon. Cf. *ăs-* 'to scoop up' < PT *sus-*, *ăsla* 'mash' ← R *suslo* etc. The LOB word had spread in the Volga-region as a technical term of weaving, cf. Cher. *šuša* (Räsänen, *Tat. Lehnw.*, p. 65 ; Cher. ← Tat.), Tat. *sosa*, Bashk. *hosa*, and reached Vogul (*sisa*, Kannisto, *Tat. Lehnw.*, p. 177) and Ostyak (*susaj*, Paasonen, *FUF* 2 (1902), p. 129) with Tatar mediation, and perhaps Votyak. As the word exists only in the Zyr. P dialect, it is either of Votyak, or of Tatar mediation. So far, the word has not been traced in Russian dialects.

7. Zyr. (Wied.) P *śor* 'Stief-' : *śor-aj* 'Stiefvater', *śor-mam* 'Stiefmutter', *śor-zon* 'Stiefsohn', *śor-nil* 'Stieftochter'. Voty. (*Wichm.*, p. 101) *śur* 'Stief-' ; Uf. *śur-ajî*, M *śur-ajî*, MU *śur-ataj*, 'Stiefvater', Uf. *śur-mumî*, MU *śur-anaj* 'Stiefmutter'. — PV **śor*.

← LOB *śār* or MB *śor* > Chuv. *śur, śură* 'half, half of something' (Sirotkin), Cf. *ama śuri* 'stepmother', *ama śuri ĕvăl, ĕvăl śuri* 'step-son' (Sirotkin) ~ PT *yaru* 'half', *yarïm* 'id.' < *yar-* 'to split (into two)' (Clauson, pp. 954, 955, 968 ; Räsänen, *Etym. Wb.*, p. 189).

Besides the more original *śură* form there exists the *śur* form in Modern Chuvash as well, as is indicated by the doublet *ĕvăl śurri* (Paasonen, *Csuv. szój.*) and *ĕvăl śuri* (Sirotkin). The Zyr. P *o* instead of the *a* in loans of the PP period indicates a borrowing from Votyak.

Wichmann, *Tschuw. Lehnw.*, p. 101 ; Raun, *Chuv. Borr.*, p. 41 ; Lytkin, *Ist. vok.*, p. 95 ; *Drev. tjurk. élem.*, p. 133.

8. Zyr. (WUo.) P *torta·* 'Brett mit Schaft zum Zusammenscharren des gedroschenen Getreides', (Lytk.) Ya. *to·rta* 'pechlo, upotrebljaemoe dlja sgruženija vymoločennogo zerna na gumne'. Voty. (*Wichm.*, p. 111) MU *turto* 'Femerstange, Deichsel, Gabeldeichsel' Uf. *turto: gerî-t.* 'Deichsel am Pflug', (Munk.) K *turto* 'Gabeldeichsel, Doppeldeichsel'. — PV **torta*.

← LOB **tărta* or MB **torta* > Chuv. *turta* 'carriage pole' (Sirotkin) ~ PT *tarta* ~ *tartaq* < *tart-* 'to pull' (Clauson, p. 535 ; Räsänen, *Etym. Wb.*, p. 465).

According to Räsänen (*loc. cit.*) the Chuvash word goes back to a *tartaq* form ; phonetically, this is feasible, but the Tkm. *dartï* 'detal' tkackogo i prjadil'nogo stankov' indicates that the word also had a form without *-q*. The Tat., Tob., *tarta* (Radlov) and Tat., Bashk. *tärtä* are definitely Volga Bulgarian loanwords ,but the Turki *tärtä* (Rachmeti, see Räsänen *loc. cit.*) if it is authentic, can hardly be one.

The Zyr. P *o* instead of the expected *a* of the loanwords of the PP period indicates a borrowing from Votyak.

Wichmann, *Tschuw. Lehnw.*, p. 111 ; Raun, *Chuv. Borr.*, pp. 41, 44 ; Lytkin, *Ist. vok.*, p. 98 ; *Drev. tjurk. élem.*, p. 133 ; Fedotov, *Ist. svjazi* II, p. 144, Räsänen, *Etym. Wb.*, p. 465.

9. Zyr. (Wied., Zus.) P *ulmę, ulmęs* 'Apfel'. Voty. (*Wichm.*, p. 123) MU *ụmo*, (Munk.), K *ulmo*, (Uotila, *Wortgeschichtliches* : *MSFOU* 67, 1933, p. 400) *umo* 'Apfel', *umo-pu* 'Apfelbaum'. — PV **olma*.

← LOB **ălma* or MB **olma* > Chuv. *ulma* 'apple, potatoes' (Sirotkin), *uma* 'potatoes' (Ašmarin) ~ PT *alma* (Clauson, pp. 146–7 ; Räsänen, *Etym. Wb.*, p. 18).

The Zyr. P word cannot originate directly from Bulgarian because on the basis of the LOB **ălma* or *olma* we would expect **alma* or *olma* in Permyak. The Zyr. P *ulmę* (< **ulmo*) got into Permyak after the **o* > *u* sound-change in the Votyak first syllables and the **a* > *o* change in the non-first ones. The Votyak *o* of non-first syllables was replaced in Zyryan by *ę*, as *o* cannot occur in absolute final position in original Zyryan words. The *ę-* was regarded as a vocative of nominative value which developed from a first person possessive suffix, cf. *pećę* 'Großmutter' (~ *peć* 'id.'), *bębę* 'Einfältiger' (*bęb* 'dumm'.[30] The more frequent *-ęs* denominative nominal suffix has taken the

[30] Cf. M. A. Kövesi, *A permi nyelvek ősi képzői* [The Ancient Suffixes of the Permian Languages], Budapest 1965, p. 130.

place of *-ę* in the *ulmęs* form. The Voty. *umo* 'Apfel', *umo-pu* 'Apfelbaum' quoted by Uotila[21] are hardly related etymologically to the Finnish *omena*, Estonian *õun*, etc. 'Apfel' words (the *SKES* does not mention the Votyak word as equivalent to the Finnish, etc. words). The Voty. *umo* is the adoption of a Chuvash dialectal *uma*.

Wichmann, *Tschuw. Lehnw.*, p. 123 ; Uotila, *Gesch. Kons.*, p. 388 ; Lakó *Perm. ny. szóv.*, p. 27 ; Raun, *Chuv. Borr.*, pp. 31, 33 ; Lytkin, *Drev. tjurk. élem.*, p. 133 ; Fedotov, *Ist. svjazi* II, p. 146.

Phonetical and Historical Conclusions

There are too few common loanwords in Zyr. P and Votyak to allow far-reaching conclusions, particulary if we remember that in some cases, the possibility of a Tatar origin or mediation cannot be excluded.

In the system of consonants, no important changes are found to have taken place since the PP stage. If item No. 5 goes back to a PB **soɣan* form, then the voicing of the *-ɣ-* had already taken place (Cf. item No. 1 of part one : *-t- > -d-*). The *ś-* initial of item No. 7 refers to a dialect of the Chuvash type in contrast to the *ʃ-* of the VB inscriptions. The possible Turkic origin of the final *-ŏ* of item No. 2 requires further investigation.

The vowel system raises a special problem. The PT *a* > LOB *å* later on became an *o* (V), and an *u* (A) respectively. During this process, the original **o* became *ŏ* through a **u*. The long *ŏ* stopped at the *u* stage, as it could not be reduced because of the original length. In the meantime, the *u* also developed into *ŏ* :

$$
\begin{array}{rcl}
*å & > & o \\
 & & *o > *u > ŏ \\
 & & *ŏ > u \\
 & & \quad *u > ŏ
\end{array}
$$

Thus if PV already had **u* as in the case of item No. 7, then indirectly it also means that the *å* > *o* development had by then, taken place. This presents no difficulty whatsoever from the point of PV as the labial *å* was replaced by an *o* in PV, and the *o*, naturally, adopted as an *o*. In respect of PV, one can also imagine for the etymology of word No. 2 that it was not an *ä* → *a* sound substitution that took place, but that PV adopted an *a* after the **ä* > *a* development, this however, is less probable. The **e* > *i* change had not yet taken place according to the testimony of items Nos 1 and 3. Here, item No. 3 is particularly important because it is the case of a Bulgar-Turkic word beyond doubt.

[21] T. E. Uotila, *Wortgeschichtliches* : *MSFOu* 67, Helsinki 1933, p. 400.

According to the Volga Bulgarian inscriptions, the *a* and *e* sounds had not yet become an *o* and *i* ; in respect of the labials, the inscriptions are indifferent. The Mongolian loanwords in the Volga Turkic languages[22] show that the Mongolian words participated in the closing process ; therefore, this change has to be dated to a time after the 14th century.

As the process of closing does not necessarily take place at the same time for all vowels, and there might have been differences among the Bulgar-Turkic dialects of the Volga region in respect of the vowels as well as the consonants (*ʃ:ś*), the question of the chronology of the *å* > *o* and *o* > *u* change in the LOB elements of PV ~ Zyr. P should be left open.

The beginnings of the PP–LOB contacts started in the 8th century but became really intensive only from the early 9th century on. The oldest LOB loanwords of the Permian languages originate from this period (Proto-Permian). A newer layer of Bulgar-Turkic loanwords was common to the P dialect of Zyryan, the so-called Permyak and to Votyak. The words belonging to this layer may have reached Votyak and Permyak when the northern group of the Zyryans (the Komi-Zyryans) had already migrated to the north, i.e. from the 10th century onwards. By that time, the separation of the Zyryan (Komi-Zyryan and Komi-Permyak) and of the Votyak language had been completed ; one cannot, therefore speak of common Permyak-Votyak borrowings (otherwise in Lytkin, *Drevn. tjurk. élem.*, p. 136). At the most, we may presume that some of the words belonging to this layer, and obviously the oldest ones, i.e. those borrowed in the 10th or the 11th centuries, were adopted from LOB by Permyaks and Votyaks at approximately the same time. But, as we shall see, the case was entirely different. Words Nos 4, 5, 7, 8 and 9 bear phonetic and morphological features characteristic of Votyak which overrule any thought of direct LOB → Permyak borrowing.

In borrowings of the Proto-Permian period, the LOB **å* was replaced by PP **a*. In Modern Zyryan it corresponds to *a*, and in Votyak, to *u* (Cf. pp. 18—19). If what we had in etymologies Nos 4, 7 and 8 were a PP adoption, there would be an *a* in the first syllable in the P dialect of Zyryan and not an *o*. But the *o* representation suggests a PV → Permyak mediation beyond doubt. Theoretically, a double sound substitution could also have occurred (*a* ← *å* → *o*), but this has to be excluded on the grounds that words with an *o* (< PP **o* ← LOB *å*) in the first syllable exist only in the P dialect. The LOB *å* was replaced by *o* but the possibility cannot be excluded that the words of this group were borrowed by Votyak after the *å* > *o* process of closing in MB was

[22] See A. Róna-Tas, *Loan words of Ultimate Middle Mongolian Origin in Chuvash* : Studies in Chuvash Etymology I, Studia Uralo-Altaica 17, Szeged 1982, pp. 66—134, *id.*, *The Altaic Theory and the History of a Middle Mongolian Loanword in Chuvash*. In: *Researches in Altaic Languages*, *BOH* XX, Ed. by L. Ligeti. Budapest 1975, pp. 201—211.

completed. In fact, the Votyak language could have borrowed the LOB *o* only with an *o*. These words naturally got into Permyak prior to the Voty. *o* > *u* sound-change (earlier than the 15th or 16th century).

It is commonly known that the **o* > *u* sound-change in the first syllable in Votyak probably took place quite late, in the 15th or 16th century[33] as is indicated by the oldest Russian loanwords (e.g. *kuso* 'scythe' < R *kosa*, *ukno* 'window' < R *okno*). In addition, there is another process of sound development in Votyak, i.e. the change of the final *a* to *o* in cases where there was an *o* or *u* in the first syllable. This change was a rather late one, as not only the Chuvash loanwords borrowed by the independent Votyak, but even Tatar loanwords participated in it (Cf. Lakó, *Perm. ny. szóv.*, p. 27). The two words No. 5, 9) reflecting the *o* > *u* change were borrowed from Votyak by Permyak after the 15th or 16th century. Because of the *-ak* element, the P *kena·k* 'Brudersfrau' (No. 3) is in all probability also a borrowing from Votyak. Since phonetic and morphological criteria show the six Permyak words to be Votyak words, and not Chuvash loans, we may justly question the Chuvash origin of the remaining two Permyak words (Nos 1, 2) for which we have no such phonetic and morphological evidence. It is highly probable that these also reached Permyak through Votyak mediation. All this naturally means that after the dissolution of the Proto-Permian linguistic unity we may no longer presume the existence of LOB or MB (Chuvash) → Zyryan (Permyak) contacts, but only of LOB or MB (Chuvash) → Votyak connections.

The Chuvash elements of Votyak mediation in the P dialect of Zyryan are important as they focus attention in general to the possibility of Votyak → Permyak (and perhaps Permyak → Votyak) borrowings. We know that the study of this question demands extremely great circumspection, as in the case of two rather closely related languages the detection of loanwords is most difficult when marked phonetic and other criteria are not available. But the possibility of Votyak-Permyak borrowings is a problem already beyond the scope of the present paper.

* * *

In the first and second parts of our paper, we discussed those PP and PV words that can definitely, or with a high degree of probability be regarded as Bulgarian loanwords. Since Wichmann (*Tschuw. Lehnw.*), several other correspondences have been proposed. But the majority of these proposals have neglected the background of Finno-Ugrian and Turkic linguistic history.

[33] Cf. E. Itkonen, *Zur Geschichte des Vokalismus der ersten Silbe im Tscheremissischen und in den permischen Sprachen*: *FUF* 31 (1954), p. 271 and Lytkin, *Ist. vok.* p. 19; S. Csúcs, *A votják nyelv orosz jövevényszavai* [Russian Loanwords in Votyak]: *NyK* 74 (1972), p. 35.

These correspondences have been proposed without due consideration of the mediating role of the Russian dialects, or of possibilities such as the Chuvash correspondence of the given word being a late Tatar loanword, or a word not of Turkic origin (but of Iranian, or onomatopoeic, etc.), or of words being international loans spread by commerce, or of Finno-Ugrian origin in the Volga Turkic languages. The refutation of all erroneous „correspondences" is impossible. Below, we have selected only a few of the erroneous correspondences that tenaciously survive in the literature; the conclusions derived may, perhaps, be generalized.

1. Zyr. (WUo.) V, LV, S, Pech., Lu., Le., I, Ud. *bi̯d* 'jeder, all, ganz', P *bi̯deɲ* 'alle', P *bi̯dɛ̨·s* 'alles, alle'. Voty. (Munk.) S *bi̯t*, *bi̯d*, K *bɛ̨t*, *bɛ̨d* 'ganz, vollständig', (Wichm.) G, Uf. *bi̯d*, *bi̯t*, M, Y, UM *bi̯d*, *bi̯t* 'id.'.

Chuv. (Ašmarin) *pŏvŏm*, *pĕvĕm* 'ganz, vollständig' (Wichmann, *Tschuw. Lehnw.*, p. 45; Uotila, *Gesch. kons.*, p. 12, *Syrj. Chrest.*, p. 66, with a question mark). WUo. does not mention the Chuvash origin of the Permian words.

Besides the Chuv. *pĕtĕm*, *pĕtĕm* 'complete, whole' (Ašmarin, Sirotkin) there is a *pĕt*, *pĕtĕ*, *pĕtĕ* 'pregnant' word as well (Ašmarin, Sirotkin, Paasonen). Its original meaning, as it is indicated by the Tat., Bashk., *bŏte* 'all, complete', Tat. Tob. *pŏte* 'all'[34] was 'complete'. These words can be traced back to a PT **bŭtŭk* form (Cf. Tat. dial. *bŏtŭk* 'all'). The Chuvash *-t-* was soon voiced in an intervocalic position (Cf. pp. 2, 12) but the voicing of the final *-t* of **bŭt* inferred from Permian data cannot be explained (cf. still *kap* ~ *käb*!).

2. Zyr. (WUo.) V, Lu. *čip* 'Lockruf für Hühner', V, S, Pech., Lu., Le., I, Ud. *čipan*, P *čipa·n* 'Huhn, Henne (V, S, Pech., Lu., Le.), Küchlein (I); männliches Glied (Ud., P)'. (Lytk.) Ya. *čip* 'Küchlein', (Gen.) EP *či·pan* 'männl. Geschlechtsteile'. Voty. (Wich. č. 115) G *čipi̯*, *čipi̯* S, M, Mu *čipi̯*, Uf. *čipu* (Munk.) K *čipɛ̨* 'Küchlein'.

Chuv. (Ašmarin) *čĕne*, *čĕne* 'Küchlein' (Wichmann, *Tschuw. Lehnw.*, p. 115; Lakó, *Perm. ny. szóv.*, p. 13; Uotila, *Syrj. Chrest.*, p. 167; WUo.; Lytkin, *Ist. vok.*, p. 83, *Drev. tjurk. ělem.*, p. 133; *ESK*; Fedotov, *Ist. svjazi*, II, p. 162).

The *i* sound in the first syllable of the Voty. G *čipi̯* variant evolved by assimilation to the *i̯* of the second syllable. The Zyr. *-an* is a diminutive suffix Its Chuvash origin cannot be accepted; both the Chuvash and the Permian words are of onomatopoeic origin. Words of similar phonetic form and meaning are to be found in other languages as well, e.g. Hung. *csirke*, *csibe*, R *cypka*, *cyplenok*.

3. Zyr. (WUo.) S, Lu., Le. *čokmar* 'Holzkeule (mit großem Kopf)', (*SSKD*), UV, Lu., Le., Skr., MS. *čokmar* 'čekmar'. Voty. (Wich., p. 116)

[34] Cf. D. G. Tumaševa, *Kömbatïš Seber tatarlarï tele*, Kazan' 1961, p. 183.

MU *ćokmor*, Uf. *ćokmor*, M *ćukmer*, (Munk.) S, K *ćokmor*, M *ćokmar* 'Prügel, Keule'.

Chuv. *ćukmar* 'id.' (Wichmann, *Tschuv. Lehnw.*, p. 116; Lytkin, *Drev. tjurk. élem.*, p. 134; Fedotov, *Ist. svjazi* II, p. 164). The Chuvash word is a late Tatar loan (← Tat. *ćukmar* < *čoqmar*), cf. Räsänen, *Tat. Lehnw.*, p. 80. It is remarkable that the word is missing from the P dialect of Zyryan. The Zyryan word is the adoption of the R *čékmar* of Tatar origin (WUo.), and the Votyak originates either from Chuvash or from Tatar (*čukmar* 'id.'). The Zyr. (SSKD) LV *ćok* 'čekmar' is a deduction of the *ćokmar* form under the impact of the V *ćok:ć. kernj* 'anstoßen (mit den Gläsern)' (< R *ćokatjsja*, *ćoknut'sja*) (Fokos-Fuchs). The Zyr. (SSKD) UV *tukmar* 'čékmar'' form may have evolved by contamination from *ćokmar* and the (SSKD) Skr. *tukman* 'tyček v golovu, udar kulakom po golove'. The *o* in the first syllable of the Voty. *ćokmor*, *ćokmor* is irregular instead of the expected *u*; — it might be explained by the assimilating effect of the *o* in the second syllable.

4. Zyr. (WUo.) V, S, Pech., Lu., Le., I, Ud. *ćuman*, P *ćuma·n* 'kleines Gefäß aus Birkenrinde (ugf. 1, 1/2—2 Viertelellen hoch) (Pech); webliches Glied (IT)', (Lytk.) Ya. *ćuman·n* 'berestjanaja korobka četyrech-ugol'noj formy'. Voty. (*Wichm.*, p. 118), M (Munk.) S *ćumon* 'ein Gefäß aus Birkenrinde'.

Chuv. (Paasonen, *Csuv. szój.*) *ślyman* 'längliches, niedriges Gefäß aus Lindenrinde (zum Malzen)' (Wichmann, *Tschuw. Lehnw.*, p. 118; Lytkin, *Ist. vok.*, p. 212; *Drev. tjurk. élem.*, p. 134; *ESK*; Fedotov, *Ist. svjazi* II, p. 164). The source of the Zyryan word is the R *ćuman* of Turkic (Chuvash and/or Tatar) origin; the Voty. *ćumon* goes back either to Chuvash or Tatar (Cf. Uotila, *Syrj. Chres.*, p. 168; WUo.). The Chuvash word is a late Tatar (*ćuman*) loan.

5. Zyr. (WUo.) V, LV, S, Pech., Lu., Le., Ud., P, I *don* 'Preis, Wert (V, LV, S, Pech., Lu., Le., Ud., I), Bezahlung (V, S, Lu., Le., Ud., I); Perle (P)'. Voty. (*Wichm.*, p. 53), Uf., MU, Y, M, G *dun*, (Munk.), S, K *dun* 'Wert, Preis, Zahlung', *don* (in Zusammensetzungen): *końdon* (< **konj-don*, *końj* 'Eichhörnchen') 'Viertel Kopeke, kleines Geld im allg.'

Chuv. *tan* 'gleich' (Wichmann, *Tschuw. Lehnw.*, p. 53, with a question mark, *Gesch. finn.-ugr.*, p. 234; Fedotov, *Ist. svjazi* II, p. 137 with a question mark). The Permian words are of Finno-Ugrian origin (Uotila, *Syrj. Chres.*, p. 69; *ESK*).

6. Zyr. (WUo.) V, S, Pech., T *juvgr*, Pech., Ud. *jugr*, LV *juer*, Lu., Le. *juvor*, I *juor*, P *jug·r* 'Nachricht, Kunde, Botschaft, (Pech. auch) Gerücht'. Voty. (Wichm., p. 61), S *jivor*, Uf., MU *đivor*, Y, M, G *ivor*, (Munk.), K *ibgr*, *đivor*, *đevor*, S *ivor*, G, Y *jivor* 'Nachricht, Botschaft'.

Chuv. (Ašmarin) *χĭvar* 'id.' (Wichmann, *Tschuw. Lehnw.*, p. 61, with two question marks; Fedotov, *Ist. svjazi* II, p. 168). This correspondence is not possible because of serious phonetic difficulties. See the (partly) correct explanation of the Permian words in Uotila, *Gesch. kons.*, p. 258, *Etym. Beitr.*, p. 151, *Syrj. Chrest.*, p. 89; *ESK*.

7. Zyr. (WUo.) V, S, Lu., Le., Ud. *majeg*, P *majg·g* 'Stange, Pfahl, Zaunpfahl'. Voty. (Wichm., p. 86) G, Uf. *majeg*, YM *majgg*, MU *majgk* 'Pfahl, Stange, Spieß', (Munk.) K *majäk*, *majik*, S, M *majsg* 'Stange, Pfahl, Zaunpfahl'.

Chuv. (Ašmarin) *majak* 'eine Stange im allg., als Zeichen' (Wichmann, *Tschuw. Lehnw.*, p. 86). According to Wichmann (*loc. cit.*) and Uotila (*Gesch. kons.*, p. 140), the Permian words are either Iranian loans or were taken over from Iranian through Chuvash mediation. Later Uotila (*Syrj. Chrest.*, p. 114), later still the *ESK*, and most recently Joki (*Uralier*, p. 279) accept only an Iranian origin.

8. Zyr. (WUo.) *parga* 'in der Flachshechel zurückgebliebener flockenförmiger, reiner Abfall vom gehechelten Flachs.'

Chuv. (Zolotnickij, *Čuv.-russk. sl.*) *parga* 'Büschel' (Wichmann, *Tschuw. Lehnw.*, p. 91 with a question mark). In the literature, two words that are not related are dealt with jointly. The Chuv. *parga* (Zolotnickij, *Čuv.-russk. sl.*; Paasonen, *Csuv. szój.*) 'heap, bundle' is a dialectal form; more exactly, the word is *paŕga* (Ašmarin IX, p. 117) and is the equivalent of the *payârka* of the literary language. This word exists in Cheremiss (*pajârka*, *pôjârka*, Räsänen, *Tat. Lehnw.*, p. 88. Cher. ← Chuv., *Etym. Wb.*, p. 378 Cher. → Chuv.), and also in Tatar (dial. *payarka*). These words are adoptions of the R *pojarok* 'šerst' jagnjat (pervoj strižki)' (Vasmer III, p. 351) and the semantic development is 'small heap of wool' → 'small heap, bundle' (Cf. Cher. *miž-pajârka* 'ein wenig Wolle', Tat. *payarka* 'pojarok'.) This word has to be separated from the other on the basis of phonetic and semantic considerations, the opinion of Vasmer (III, p. 205) and Räsänen notwithstanding (*loc. cit.*). It exists in Modern Chuvash in the *parka* 'fragile' (Ašmarin VII, p. 110) and *parkăn* 'broken into small pieces' (*loc. cit.*) forms. It has become a rare dialectal word because of its homophony with the *parka* 'firm, strong' of MMo. origin.[35] But the word exists in Cheremiss (*parya* 'obdiriki ot močala', Räsänen *loc. cit.*) and also in the Russian dialects of the region (*parya* 'očeski l'na, malen'kie volokna', Vasmer III, p. 205). The latter words correspond to an LOB **bärgä*, which is related to a PT *ber-* 'to strike' (to be distinguished from the word *ber-* 'to give'!) (Räsänen, *Etym. Wb.*, p. 70). The Zyryan word is of Russian mediation if for no other reason then because of the initial *p-*. WUo. has rightly regarded it as a Russian loanword.

9. Zyr. (WUo.) V, LV, S, Pech., Lu., Le. *peliś*, l *peliž* 'Vogelbeere'. Voty. (Wichm. p. 90) Uf. *paleś*, *pależ* G, Y *pależ*, Y, M *pâweż* 'id.'.

[35] See A. Róna-Tas, *Loan-words* . . . pp. 77—79.

Cf. Chuv. (Ašmarin) *pĭlĕs* 'id.' (Wichmann, *Tschuw. Lehnw.*, p. 90). The Permian words are of Finno-Ugric origin (*ESK*).

10. Z y r. (WUo.) V, LV, Pecj. *pŝriź*, S, Ud. *pŝriž* 'lange Brechstange, Eishaue (die Spitze aus Eisen, der Schaft aus Holz'), (Rog.). P *pŝrjć* 'id.' V o t y. (Wichm. p. 91) Y *pŝrić* 'Brecheisen, Brechstange', (Munk.) S *pŝrĵča*, M *piriča* 'Hohleisen (zum Aushöhlen eines Troges od. Bienenstockes gebrauchtes Werkzeug'). Chuv. (Zolotnickij, *Čuv.-russk. sl.*) *pürüš* 'Kratzeisen, Haue, Karst' (Wichmann, *Tschuw. Lehnw.*, p. 91 ; Fedotov, *Ist. svjazi* II, p. 123). The Chuvash word (correctly : *pŏrŏš*, *pĕrĕš*, Ašmarin) and the Tat. dial. *böröš*, Bashk. *böröz* are loanwords from a Finno-Ugric language. The Permian words are of Uralian origin (Collinder, *ESK*).

11. Z y r. (WUo.) V, LV, Pech. *sukman* 'Überrock aus hellgrauem hausgewebtem Wollstoff (V), Überrock aus schwarzem, blauem od. weißem hausgewebtem Stoff (LV), Überrock aus dickem hausgewebtem Stoff (Pech.)'. V o t y. (*Wichm.*, p. 95) G *sukman* 'grober, wollener Kaftan, Bauernkittel' (Munk.) S, M *sukman* 'hinten gefaltetes Winterröckel'.

Chuv. (Ahlquist) *suχman*, *sukman*, (Zolotnickij, *Čuv.-russk. sl.*) *suxman* 'Kaftan, Rock' (Wichmann, *Tschuw. Lehnw.*, p. 95 ; Lytkin, *Ist. vok.*, p. 210, *Drev. tjurk. élem.*, p. 133 ; *ESK* ; Fedotov, *Ist. svjazi* II, p. 125). The Chuvash data : *săkman*, *săχman*, *sŏχman* (Ašmarin ; Paasonen, *Csuv. szój.* ; Sirotkin) exclude the alternative that the word may be the regular equivalent of the Tu. *čäkmän* (cf. on this Doerfer *TMEN* III, pp. 82–84 ; Räsänen, *Etym. Wb.*, p. 103) as in this case one would expect a **śakman*, or perhaps a **śikmen* form. The present Chuvash forms are borrowings of the R *sukman*, and the Chuvash form *săkman* regularly corresponds to it ; the forms with *-χ-* are analoguous formations under the influence of the *-χ-* general in the back vocalic words. Vasmer (III, p. 799) doubts the Slavic origin of the Russian word because he finds it impossible to explain the Turkic variants with *s-* initial given the Turkic data with *č*. But as we have seen the Chuvash data are of Turkic origin. The Tat. Tob. *sükmän*, *sügmän* 'čekmen' (Tumaševa, *op. cit.*, p. 193) really cannot be explained from Russian, nor from *čäkmän*, neither its *s-* initial, nor its labial vowel. Here, Chuvash mediation or a Tu. **sökmen* form has to be presumed. The latter occurs in Kāšγarī : *sökmen* 'a military title'. Kāšγarī's item is rather enlightening : *er sökmenlendi* 'the man has put on the soldier's dress and regarded himself as one of them (i.e. he has been *sökmen*ized)' (Cf. Clauson, p. 821). Thus, here, the word refers to a soldier's garment associated with rank. A Tu. *sökmen* → → R *sukman* borrowing can be accepted from the phonetic point of view, though the lending Turkic form cannot be reconstructed for the time being. But we cannot exclude the possibility that the Turkic word had a *soqman* variant as well. The name of a kind of Turkic boot is e.g. *soqman*, and it has a *sökmen* form as well in the old texts (Cf. *Tarama Sözlüğü* V, p. 3501). The boots were made of felt ! The Zyryan word is of Russian origin, and so, perhaps, is the Votyak, though Turkic mediation is not impossible. The Voty. *a* refers to a late borrowing.

12. Z y r. (WUo.) V, Ud. *śorkńi*, V, Pech., Le., I *śortńi*, S, Lu., P *śort'ńi*, (Gen.) EP *śortńi* 'Rübe'. V o t y. (Wichm. p. 97) G, Uf. *śarćŝ*, M, MU *śarćĵ*, *śartĵ* (Munk.) S *śartći*, K *čarćę* 'id.'.

Chuv. (Ašmarin) *śarĵk* 'id.' (Wichmann, *Tschuw. Lehnw.*, p. 97 ; Uotila, *Gesch. kons.*, pp. 41, 358 ; Lytkin, *Ist. vok.*, p. 96 ; *Drev. tjurk. élem.*, p. 133 ; *ESK* ; Fedotov, *Ist. svjazi* II, p. 130). The Chuvash word is entirely without relatives in Turkic ; its possible reconstructed PT form is **yärik* or **čärik*. From this, an LOB *śärik* could have developed. But the correspondence has phonetic difficulties as well : the LOB *ä* → PP *o* (> Zyr. *o*, Voty. *a*) correspondence is unusual. The Zyr. *-ńi*, and the Voty. *-ći*, *-ći* are denominative substantive suffixes. In Zyryan, we have the **śorĵkńi* > **śorkńi śortńi* > *śortńi* development to consider, whereas in Votyak, there is the **śorĵkći* > **śarĵkći* > **śarkći* > *śartći* > *śarćĵ* sound development. Neither can be explained from an LOB **śärik* form.

13. Z y r. (WUo.) V, S, Lu., Le. *šabala* 'an der rechten Seite der Pflugkrümme (oberhalb der Pflugschar) angenageltes dreieckiges Brettchens zum Abwälzen der Erde' (SSKD) Pech. *šabala* 'otval (u sohi)'. V o t y. (*Wichm.*, p. 103) G, M, Uf. *šabala* 'ein an der Pflugkrümme (oberhalb der Pflugscharen) befestigtes Brettchen (Schaufel) zum Abwälzen der Erde', (Munk.) S, K *šabala* 'Deichsel, Handhabe am Pflug'.

Chuv. (Zolotnickij, *Čuv.-russk. sl.*) *šabala*, *śybala*, *šubala* 'Löffel, großer Löffel, Schaumlöffel', *soga-śybaly* 'Brettchen am Pflug zum Abwälzen der Erde' (Wichmann, *Tschuw. Lehnw.*, p. 103 ; Lytkin, *Ist. vok.*, p. 167, *Drev. tjurk. élem.*, p. 134 ; *ESK* ; Fedotov, *Ist. svjazi* II, p. 131).

In Chuvash, the *šăpala* and *šŏpala*, *šăpala* forms have to be separated. The meaning of the latter two is 'ladle' (Ašmarin) ; the meaning of the *suxa šăpali* compound is 'otval, derevjannaja ili železnaja došečka pridelannaja vyše sošnika dlja otvala zemli' (Sirotkin, see under *suxa*) ; in all probability, the term developed in Volga Bulgarian agriculture. The LOB form can be reconstructed in **šobala*, which was adopted by the R *šabalá* 'breast-board of plough, ladle' and by Cheremiss (*šowšla*, *sowla*, *sawa·la*, Räsänen, *Tschuw. Lehnw.*, p. 193). The word has spread in the Turkic languages through Russian mediation (cf. Tat. dial. *šabala*, *čabala*, Räsänen, *Etym. Wb.*, p. 94) and the Chuv. *šăpala* is also a re-borrowing from Russian. Consequently, the Permian words can only be Russian loanwords, both for phonetic (*š-*, Zyr., Voty. *a-*) reasons, and for those of linguistic geography. The Votyak word may have been borrowed through Tatar mediation.

The origin of the supposed LOB **šobala* is not clear. The word, which has spread in the Siberian Turkic languages and penetrated into the southern

Samoyed languages as well (cf. Joki, *Lehnw.*, p. 282; Räsänen, *Etym. Wb.*, p. 94), is directly of Russian origin as is indicated by the numerous phonetic irregularities. This was noticed already by Rásonyi[36] and Lakó.[37] The LOB **śobala* (< **čobala*) can be traced back to the PH **ćubsls* or *ćobsls* predecessors of the Hung. dial. *csobolyó* 'Handlägel, Holzfäßchen' (for the Hungarian word, see *MSZFE*). As a mediating language, only Proto-Hungarian can be considered, i.e. a word of a phonetic form wherein the *-mp-* of the Ugric **ćumpsls* has already become *-b-*. An Ob-Ugric or Permian origin should be excluded for phonetic reasons.

14. Zyr. (WUo.) V, S, Pech., Lu., Le., I, Ud. *tasma* 'Riemen, Ledergürtel'. Voty. (Wied.) *tasma* 'Gurt'.

Chuv. cf. Tat. *tasma* 'Band, Wollenband' (Wichmann, *Tschuw. Lehnw.*, p. 105 with two question marks). The word does not occur in Chuvash.

The history and origin of the word are controversial. Recently Doerfer (*TMEN* I, pp. 245–247) and Joki, (*Uralier*, pp. 214, 326) have rejected the proposed Iranian origin. According to Joki, the word got into Zyryan from Tatar through commerce; whereas according to WUo., the Zyryan word is the adoption of the R. dial. *tasma* — which is of direct Tatar origin — along with the Votyak word. It is a cultural word which spread during the Mongolian epoch from Europe (Russian, Polish, Roumanian, Bulgarian) through the Caucasus, Afghanistan, Iran, Siberia and Central Asia to Manchuria (see also Joki, *Lehnw.*, p. 317). There is no earlier trace of it anywhere; it is, thus, doubtlessly of Mongolian origin, though we cannot be sure that the word genuinely belongs to the vocabulary of the Mongolian language. Because it is a late international loanword and for phonetic reasons, (Zyr. *a* ~ Voty. *a*), we have to exclude it from the LOB loanwords of PP, irrespective of its direct source.

15. Zyr. (WUo.) V, LV, S, Pech., I., Ud. *źep*, Lu., Le. *ʒep* 'Tasche'. Voty. (Wichm., p. 53) G *ʒep*, (Wied.) *źep* 'id.'.

Chuv. cf. Ottoman *ʒeb* 'Tasche, Sack, Beutel' (Wichmann, *Tschuw. Lehnw.*, p. 52, with two question marks). The Zyr. *źep* originates from the R *žep'*, *źep* forms. The source of the Zyr. *ʒep* can be the R *džeb* (Cf. Kalima, *Russ. Lehnw.*, p. 172; Uotila, *Gesch. kons.*, p. 36, *Syrj. Chrest.*, p. 188; *ESK*). The substitution of a Zyr. *ʒ* for the R *ʒ* is problematic (see *ESK*). But since the R *ś*, *ź* (< Old Russian *s*, *z*) sounds were replaced by *ś*, *ź* in the oldest Russian loanwords of Zyryan,[38] we presume that the rather rare *ʒ* of Russian (in loanwords)

[36] L. Rásonyi, *Török adatok a Magyar Etymologiai Szótárhoz* [Turkic Data for the Hungarian Etymological Dictionary]: *NyK* 51 (1941–43), pp. 114–115.

[37] Gy. Lakó, *Finnugor szómagyarázatok* [Finno-Ugrian Etymologies]. In: *Melich Emlékkönyv* [Memorial Volume in Honour of J. Melich], Budapest 1942, p. 210.

[38] V. I. Lytkin, *Drevnerusskie ś, ź – zyrjanskie ś, ź: Doklady AN SSSR* 1928, pp. 298–301.

may have earlier been in the form of a palatalized (*ʒ*) sound. As the adoption of an Old R *ʒ* a Zyryan *ʒ* is completely regular.

The source of the Russian word is the Turkic *ʃeb* which goes back to Arabic through Persian (Cf. Räsänen, *Etym. Wb.*, p. 124; Kakuk, *Recherches*, pp. 89–90; Vasmer II, p. 95); it is a word which has spread relatively recently through trade; hence its several variants even within Russian itself.