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AN ALTAIC WORD FOR "SNOWSTORM"¹

1. In the inscriptions celebrating the deeds of respectively Kül tegin and Bilgä qayan there appears a word *bor(a) ~ bur(a)* the interpretation of which is controversial. The reading of the text poses no problems: *türgäs qayan süsi bolčuda otča bor(a)ča [bur(a)ča] kälti* (I E 37 and II E 27-28), "The army of the Türgäs kaghan came from Bolchu like i fire, like a ?".

In his first edition of the inscriptions Thomsen (1896, 110) translated: "l'armée du kagan des Turgès arriva à Boltchou (?) comme le feu et la tempête". From our point of view it is of no importance that Thomsen interpreted the *-da* suffix of Bolču as a dative, an obvious mistake. Malov 1951, 41 and Tekin 1968, 269 take it to be a locative, I would translate it by an ablative. The vocalization of *bor ~ bur* is uncertain and so is the presence of a final *-a* before the equative *-ča*. Thomsen 1896 read *bur^a*, Thomsen 1916, 94 *bor*. The same reading is adopted by Malov 1951, 32, Tekin 1968, 236, Gabain 1941, 304, Clauson 1972, 357 and by many others. Somewhat surprisingly the word does not appear in the DTS. S.v. *bura* one can find only a cross-reference to *bor* where one looks in vain for any mention of either *bura* or of the above-quoted passage.

2. Our concern is primarily with the meaning of the word within the context of the Orkhon inscriptions. A definitive solution cannot be reached until the word is traced in some vocalized OT text. At present it is virtually a hapax legomenon as — in the passage quoted — the two inscriptions correspond verbatim. Thomsen 1896 and 1916 translated the word as "storm, tempest". Tekin 1968 and many others followed his example. For reasons known only to him Orkun 1936, 46 translated *borča* by "like water (su gibi)" in the Kül tegin inscription, whereas on p. 62, in the translation of Bilgä kaghan's monument, the same word is translated by "kasır-

ga (whirlwind)". In the vocabulary (Orkun 1941) the meaning given to *bor* is "bora, firtina". Stebleva 1965, 81,95 reads *otča borača* and translates (119,134) "как ОГОНЬ И ЛИВЕНЬ (буря)". I see no justification for translating *bora* by "heavy shower (ЛИВЕНЬ)" but the redeeming буря is there. Stebleva gives no reasons for her adopting the bisyllabic *bora* form. It would be interesting to know whether her choice was prompted by the metric construction of the passage. In the case of the Kül tegin inscription Ajdarov 1971, 299 gives the same translation as Stebleva, but on p. 310 seems to have changed his mind and rendered *otča borača* with "как ОГОНЬ И ВИХРЬ". References to some older readings not mentioned here can be found in Dobrodomov 1976, 241-242.²

Malov 1951 equates *bor* – as he reads it – of I E 37 and II E 28 with CT *bor* "wine" and translates "ПОДОБНО ОГНЮ И ВИНУ". This to my mind is total nonsense but, alas, Clauson 1972, 357 leans towards the same interpretation: "It is more likely that this *borča* is Equative form of *bōr* 'wine' with the implication that too much wine leads to disorder". Yet Clauson's common sense seems to have recoiled from his own interpretation which he does not follow in the translation of the passage: "the Türgeş *xağan*'s army advanced from Bolçu like a fire or ...", leaving a blank at the place of *borča*. Sir Gerard was too much of a military man to be satisfied with an army advancing like wine!

Hardly more defensible is Doerfer's explanation (TMEN I, 220): "*otča burča* [nicht *borča*!] *kälti* 'er kam wie Feuer und Wirbelasche (aufgewirbelte Asche)' cf. oir. tel. *pur* 'Asche die vom Feuer aufgewirbelt wird und wie Spinnengewebe am Dache hängen bleibt', kkir. *bur* 'id.' (Cf. semantisch *bürği* 'wirbeln, in Unordnung sein')". Again, I somehow cannot imagine an army advancing "like ashes", particularly not as ashes covering the roof – a sedentary situation if ever there was one. Doerfer has assembled a fairly complete documentation on words which, to his mind, are unconnected with OT *bur(a) ~ bor(a)*, but which represent an extended Altaic word family meaning "storm". His references are incomplete, so will be mine, but it is necessary for our purpose to assemble here the principal data.

3. The Turkic words show four different patterns: a/ *bor* (*bur*) or *bora* (*bura*), b/ *boran* or *buran*, c/ *borağan* (*buraghan*), d/ *purğa*.

a/ To this group belong OT *bora* (*bura*) – if we opt for a form with final *-a* and read *borača* (*burača*), and Turkish *bora* "tempest".

b/ Forms with a final $-ŋ$ may be found, among other languages, in Azeri *boran*, Bashkir *buran*, Khakas *porān*, Karakalpak *boran*, Kirghiz *borōn*, Nogay *boran*, Uzbek *būron*, Tuvin. *borān*, KazTatar *buran*, Koibal, Karagass *boran*, Karachay, Kumyk *boran*, Mod.Uighur *boran* — all listed in TMEN I, 219-220. (A slightly less complete listing: Menges 1954, 24.) We might add Turkmen *bōrān* (Baskakov 1968), also a Turkmen tribal name *boran* rightly connected with this group of words by Németh 1969, 16-17, Tuba-Kiži *borān*, *borōn*, *boron* "fog" (Baskakov 1966), Turki *buran*, *bur'an*, *burān*, *borān* "storm, sand-storm, tempest".

c/ Trisyllabic forms are attested in Chagatay *borayan*, *burayan* "snow-storm" (Radloff, Wb. IV, 1662, 1818), Teleut *poroyon* (Radloff, Wb. 1269), Ottoman *burayan* (Redhouse).

d/ Yakut *buryā*, *purūā* "snowstorm, blizzard" are probably of different origins. Because of the initial $p-$ the second must be considered a borrowing of Russian пурга (cf. 7). A different origin will have to be ascribed to *buryā* and *burwān*.

4. The Mongol forms represent a trisyllabic original the vocalization of which remains uncertain. The variants listed by Doerfer TMEN I, 219 comprise: SH *bora'an*, *boro'on*, *boroqan*, MOClass. *boruyan*. Dialects show contractions, e.g. Ordos *Borōn*, Monguor *Burōn*, Kalm. *borān*.

5. In Tunguz there are two basic forms.

a/ The first type, without the intervocalic explosive appears in Nanay *bora*, in nominal as well as in verbal use, meaning respectively "snowflake" and "порошить, падать (о мелком снеге)". Further derivatives include *borkali* "snowstorm". Cincius 1975, 111 quotes Manchu *buran*, not listed by Hauer or by any other Manchu dictionary I know, with the exception of Zakharov 1875, 538 where it is rightly given as a "Tatar word".

b/ Evk. *burga* "snowstorm". The comparison with Evk. *burkas* "cruel (of winter frost)" proposed by Cincius 1975 is unconvincing on semantic grounds. The basic meaning of Evk. *burki* "пороша" and of its cognates given by Cincius 1975, 113 is "dust", "powder", "powdery snow", as represented already in Jurchen and by Ma. *buraki* "dust".

6. S.v. Fi. *purku* "snowstorm", the SKES (653-654) collates a fair number of FU forms. It equates the Fi. word with Lp. *bor'gā*, Cher. *purūā* "there is a snowstorm blowing", Zyr. *pūra* "swirl of snow, heap of snow", and many dialectal variants. Listed with a question mark are the Ugric forms,

Vg. $p\ddot{o}r\ddot{k}\xi$, $p\ddot{a}r\chi$, $p\ddot{a}r\ddot{k}$ "snowstorm, snowdrift", Ost. $p\ddot{o}r\ddot{k}'i'$, $p\ddot{v}r\chi a$ "smoke, snowfall, snow driven before the wind, snowstorm", and also SamYur. $p\ddot{a}r\ddot{o}\cdot nt\ddot{a}i$ "snowdrift", SamO. $p\ddot{u}r\chi\ddot{a}'D$ "snowstorm". According to the SKES this is a descriptive word which can be found also in Altaic. A similar non-explanation is given (SKES 672) to Fi. *pyry* (pronounce: *pürü*) "snowstorm".

7. Russian *буря* "violent snowstorm" cannot be separated from the Turkic words listed under 3b. The comparison has been made or reaffirmed by virtually everyone who examined this word. It is accepted by Vasmer 1964, 243, although he limits himself to listing some Altaic forms and seems to pass the responsibility for the equation to Altaists. To his references may be added those listed by Doerfer TMEN I, 220. Bulgarian, as already noted by Lokotsch 1927, No. 357 has *bura* and *burja*.

Russian *пурга* "snowstorm, blizzard" is, according to Vasmer 1971, III, 409, borrowed from FU. The SKES (654) ascribes to it a Finno-Carelian origin.

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The problems presented by the words and groups of words listed above are uncommonly involved. Are these words all cognates, and if they are, of what derivations, borrowings are they the products? I will attempt to give some answers to at least some of the questions which can be raised in this connection.

8. The Turkic words *bor(a) ~ bur(a)* (cf. above 3a) seem to represent the original or, in any case, the simplest form. The first vowel cannot be determined with any degree of certitude as the living Turkic languages show both *o* and *u* in the words of the *boran* type.

Many scholars link *bora* with Greek $\beta\omicron\rho\acute{\epsilon}\alpha\varsigma$ "north wind". The idea may go back to Radloff (Wb. IV, 1662). Menges 1954, 702 and Räsänen 1969, 80 attenuate the assertion by the use of respectively "cf." or a question mark, Doerfer TMEN I, 220 accepts it. There is something basically improbable in a theory that would foist upon us the belief that a word used throughout icy northern Eurasia and meaning "snowstorm, etc." is a borrowing from Greek. Indeed, if *boréas* has to be connected with the Uralic-Altaic group of words here examined, the transmission must have been made in the opposite direction, coming from the north into Greek. The fact is that *boréas* has no valid etymology. It has often been con-

nected with Sanskrit *giri-*, Avestan *gairi*, Slavic *gora* "mountain" (e.g. Pokorny 1959, 477), but Chantraine 1969, 185 calls this etymology a "simple hypothèse". Were we to accept such an etymology, the problem of explaining the diffusion of the Greek word would remain. As Greek has a number of masculine names of winds ending in $-\alpha\zeta$ one might connect the root $*\beta\omicron\rho\epsilon-$ with Altaic $*bor(V)$ and consider it a Greek borrowing from northern Eurasia. It would not be the only hyperborean element in ancient Greek culture.

Other etymologies have been proposed. Radloff's (1897) explanation of *otča borča* as *otača burača* "von allen Seiten" is totally unacceptable as shown already by Melioranskij 1899, 124 and Thomsen 1916, 95, and — more recently — by Ašnin 1963, 102. I have already stated my position as regards the explanations put forward by Clauson and Doerfer (cf. above 2), and so I am left with the task of integrating *bor(a) ~ bur(a)* "snow-storm" in a greater Uralic, Altaic, or Ural-Altaic family.

In my opinion all the Turkic forms go back to *bor* "storm, (perhaps) snow-storm", reading for which I now opt in the relevant passages of the Orkhon inscriptions. Doerfer *loc.cit.* attributes the same opinion to Joki 1952, 97 and to Menges 1954, 702. In fact both of them are content with listing the forms and stating that we are in the presence of a "Wanderwort".

9. A verb *bora-* "stürmen" is given by Radloff Wb. for modern Uighur and Kazakh and it appears also in Turkmen "to snow heavily", Karaim "to storm", Karakalpak "to drift (about snow)" and possibly also in other Turkic languages. The Kumyk meaning is "МЕСТИ, ВЗЫМАТЬ"; *bora-* is thus not an isolated form as would appear from previous surveys.

The verbal root *bora-* is a perfectly regular denominal derivation of *bor*, on the pattern of e.g. OT *at* "name" > *ata-* "to call", *mün* "guilt" > *münä-* "to be guilty", Kāšyari *tün* "night" > *tünä-* "to spend the night".

The suffix is still functional in most Turkic languages, including those in which the word *bora-* occurs, e.g. Kumyk *yaš* "age" > *yaša-* "to live", *aš* "food" > *aša-* "to eat" (cf. Dmitriev 1962, 326); Turkmen *yaš-* "age, year" > *yaša-* "to live", *ot* "grass" > *ota-* "to weed", etc.; Karaim *at* "name" > *ata-* "to name", *san* "number" > *sana-* "to count" (cf. also Zajczkowski 1932, 130-131); Karakalpak *at* "name" > *ata-* "to name", *san* "number" > *sana-* "to count"; Kazak *as* "food" > *asa-* "to eat", *teng*

"equal" > *tenge*- "to equalize", etc. Concerning this suffix see also Räsänen 1957, 144; Deny 1921, 537; and the more comprehensive treatment, with examples taken from many Turkic languages: Sevortjan 1962, 205-221.

10. The *boran*-type words (cf. 3b) are extremely common in all Turkic languages. Universally, the *-n* is functional as a present participle which, in many instances, becomes autonomous. It is sometimes difficult to differentiate between the two functions of the *-n*, viz. a participle (adjective) and a deverbal noun formant. There is hardly a grammar dealing with a Turkic language that has not touched upon this question. Cf. also Bang 1934, 194-195, Sinor 1943, 142, Brockelmann 1954, 128-129, Räsänen 1957, 116.

Examples of the substantival use are very numerous, e.g. *Kāšyarī* and other Turkic languages *tik*- "to stitch, to sew" > *tikän* "thorn", *äk*- "to sow" > *äkin* "crop", Turkish *bak*- "to look (after), to examine" > *bakan* "Minister", *düz*- "to arrange, to put in order" > *düzen* "order", *yığ*- "to heap, to pile up" > *yığın* "heap, pile", Oïrot (Dyrenkova 1940, 52) *d'u*- "to collect" > *d'un* "collection", *šū*- "to fish with a net" > *šün* "fishing net", Uzbek *yoγ*- "to fall (rain or snow)" > *yoγin* "rainy, covered weather", *yïγ*- "to collect" > *yïγin* "collection" (cf. Kononov 1960, 121).

It is not indifferent from our point of view that many of the deverbal nouns in *-n* are ubiquitous throughout the Turkic world. For example *kelin* "daughter-in-law", derived from *kel*- "to come" appears in virtually every Turkic language, and so does *yalin* "flame" derived from *yal*- "to burn". It brings some relief to this dreary listing of supportive material that another wind-name, *äsin* "wind", derived from *äs*- "to blow", also belongs to this same category. Cf. already Bang 1934, 195, followed by Räsänen 1969, 49, and Clauson 1972, 240. It depasses my understanding how Menges 1968, 137 — with his vast knowledge of Turkic — could state that "the verbal noun in *-n*, *-Vn* is rare".

I should be noted that not all bisyllabic forms are Turkic formations with a deverbal *-n*. Many of them undoubtedly represent a contraction of the trisyllabic *boruyan*-type form (cf. 3c), some of them may be borrowings from Mongol (cf. 4).

11. Bang 1934, 211 calls attention to two problems connected with our

subject. One is caused by an Ottoman *boraq* form listed by Radloff Wb. This form is otherwise unknown and it may be the result of a misprint or some other mistake. Could we substantiate Radloff's datum, its derivation from the verb *bora-* would not be problematic.

The other problem mentioned by Bang is the presence in Turkish of a word *bora* "tempest". Bang rejects the possibility of a derivation from βορέας and postulates **boray*. The idea is defensible but, all the same, I think that the Turkish word is areal and is what Menges 1954, 702 rightly calls "das Balkanwort *bora* '(Nord-)Wind, (plötzlicher Sturm)'" (Cf. also below 17.)

12. We may now proceed to the examination of the trisyllabic form of the *borayan* ~ *burayan* type which, as shown above (3c, 4), occur in Turkic as well as in Mongol.

Within Turkic such forms represent perfectly regular deverbal nouns, often also participles, of the verb *bora-*. Cf. Räsänen 1957, 126-127 where some of the most obvious examples are missing, e.g. *Kāšyarī yügür-* "to run" > *yügürgän* "messenger", *qabar-* "to swell" > *qabaryan* "swelling, tumour". Cf. also Sinor 1939, 545.

A derivational suffix *-yan*, *-gen* forming deverbal nouns is very common also in Mongol, e.g. MOClass. *ide-* "to eat" > *idegen* "food", *uta-* "to smoke" > *utayan* "smoke", *sana-* "to think" > *sanya* "thought". Poppe 1955 unfortunately does not deal with derivations and Ramstedt 1952 does not mention the Mongol suffix although he speaks of the Turkic forms in *-yan* (p. 147). According to Poppe 1927, 97, *-yan* is a compound of a deverbal verb formant *-ya* and the deverbal noun formant *-n* (cf. above 10). Modern dialects lost the intervocalic *-y-* or *-g-*, e.g. mod.Khalkha *idē* "food", *utā* "smoke", Buryat *edē(n)* "food", *utān* "smoke". Middle Mongolian shows the gradual eclipse of the consonant, e.g. in the Muqaddimat al-Adab (Poppe 1938, 61) which has *yabuyan* "pedestrian" < *yabu-* "to go", but *ide'en* "food".

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13. The following conclusions can be drawn from what has been said above:

a/ *boruyan* (*burayan*) can be explained with equal ease from Turkic and from Mongol.

b/ However, as CT actually has a verb *bora-* "to storm", it seems more likely that the name of the wind is of Turkic origin. The many examples

in Turkic of the deverbal, participial formation *boran* constitutes a further argument in favor of this interpretation. Doerfer's contention (TMEN I, 219) that the Turkic forms are borrowings from Mongol can neither be proved nor disproved but seems unlikely.

c/ The verbo-nominal root *bor(a)* could be projected into Proto Turco-Mongol and the same may be the case with *borayan*.

d/ I do not think that the Tunguz words given under 5 directly reflect a CTU root. Nanay *bora* may be a direct loan from Turkic, Evk. *burga* may have Uralic connections. With these I am going to deal in what follows.

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14. We have seen (above 6) that at present the Ugric – Vogul and Ostiak – forms are not equated with Fi. *purku* by authoritative specialists. They may be wrong, but from our standpoint the matter is virtually irrelevant. In recent works, such as Sinor 1970, 1973, 1975, I proposed a number of Uralo-Tunguz lexical correspondences, and in two of these (1970, 1975) I paid special attention to the interrelation between Tunguz on the one hand and Ugric and Samoyed on the other. István Futaky's fine study (1975) has brought scores of examples of Tunguz loanwords in Ostiak. His investigation, limited to Ostiak, has shown that contacts between this language and Tunguz dialects existed after the breaking-up of the Ob-Ugric community. Within the material collected Futaky distinguishes two layers (A and B) of borrowings. The earlier of these shows borrowings from Southern Tunguz (Nanay), while the later stratum consists mainly of words taken from Evenki.

I think it is reasonably safe to assume that the Ob-Ugric and Tunguz forms of our wind name belong together and that the correspondence should be added to those established by Futaky, myself, and others. But what about Fi. *purku*? No satisfactory answer can be given to this question but it should be borne in mind that at least one other correspondence exists between Finnish and Tunguz – Fi. *poro* "reindeer" (cf. Sinor 1975, 255) – and that the word for "ski" is common to CTU and FU. As I have pointed out in Sinor 1975, 261, the majority of the FU ~ TU correspondences belong to an arctic vocabulary, and "(snow)storm" may well qualify under such heading. We may include into this group Yakut *burya*, phonetically as well as semantically identical with the Evenki word. I feel quite certain that the Ob-Ugric and Tunguz forms have to be connected and that, somehow, the Finnish word also belongs to the group.

The next question to be answered concerns the relationship, if any, between the Turco-Mongol forms on the one hand and the Ugro-Tunguz words on the other.

15. The FU words cannot be explained by FU derivational processes. Whether connected or not, neither group (cf. above 6) has a satisfactory etymology. The situation is different in Evenki. Evk. *burqa* could be a deverbal noun of the type of Evk. *debge* "food" < *deb-* "to eat", *tetige* "cloth, dress" < *tet-* "to put on, to wear", *ilaga* "the period of ripening" < *ila-* "to ripen", *baldagā* "slippery" < *balda-* "to slip", etc. (Cf. Vasilevič 1958, 749, Konstantinova 1964, 97). But Evenki has no verb **bur* to derive it from.

The *-ya*, *-ge* deverbal noun formant appears also in Mongol and in Turkic, it might be PA, or at least CA. The Mongol suffix is used fairly frequently, e.g. MOClass. *kitu-* "to cut" > *kituḡa* "knife". On this suffix cf. Poppe 1927, 94-95, and also 118-119 where it is equated with PT **-γ ~ *-g*. There certainly is a Turkic *-ya*, *-ge* deverbal suffix the study of which seems to have been neglected. It is mentioned by Bang 1916, 2, 925 unable to produce many examples of its use. Räsänen 1957, 124 does not go much further and Menges 1968 does not mention it at all. For Middle Turkic, Brockelmann 1954, 102 gives quite a few examples. For him *-ya*, *-ge* is a "Weiterbildung" of *-γ*, *-g*, a theory which has much to commend itself. The existence of the suffix is incontrovertible already in OT, e.g. *bil-* "to know" > *bilgä* "wise".

As the words of the *burqa* type may be explained by Altaic derivations, it is logical to assume that the FU and particularly the Ob-Ugric words are borrowings from Altaic where it is possible to postulate a **bor ~ bur* verbo-nominal root "(to) storm". Only Turkic would have kept this root, at least in OT, where it was used either on its own or as a stem for derivations.

16. I think that on the basis of the foregoing it is right to conclude that our word or its derivatives appear in virtually all the Uralic and Altaic languages but that its origin is Proto-Altaic or possibly only Proto Turco-Mongol. The Uralic forms are secondary and reflect early or late borrowings from either PA or PTU or, in some cases, from one or the other of the living Altaic languages. Each and every one of the Altaic forms attested can be explained within the system of Altaic derivational morphology.

17. The suggestion that within northern Eurasia *bor*, *boran*, *borayan*, etc. are of Altaic origin does not exclude the possibility of connections reaching further afield. To follow such leads would take me beyond the limits assigned to this article, but a few words should be said about them.

The root *bur-* "snowstorm" is considered nostratic by the chief proponent of the theory of such a language family, Illič-Svityč 1971, 188-190. Joki 1952, 98 writes: "Diese Wörter scheinen typische (urspr. deskriptive) Wanderwörter zu sein, die anderswo zu finden sind, u.a. in Nordamerika, vgl. sogar frz. *bourrasque* 'Hurrikane'". Both references are justified but deserve a few supplemental remarks. French *bourrasque* "squall, gust of wind" was borrowed in the 16th century from Italian *burrasca*, originally a regional word of Venetian origin (cf. Hope 1971, 166). We are thus back to the Balkans and the Adriatic — cf. also Rumanian *pura* — and the generally accepted view of Romanists is that these words and their cognates continue Greek βουρέας. Cf. Gamillscheg 1928, 134, Wartburg 1928, 441, Meyer-Lübke 1935, 107. Joki's cryptic remark concerning North America probably refers to English *hurricane*. It is generally held (e.g. Onions 1966, 453) that the word is of Caribbean origin and came to Europe after the Spanish conquest. Spanish *huracán*, Portuguese *furacão* are at the origin of the word "violent storm" present in most if not all European languages, e.g. French *ouragan*, German *Orkan*, Dutch *orkaan*, Russian *оркан*, etc. etc.

One just cannot help wondering whether we are faced with a coincidence — or something else. If it could be shown that the Caribbean word was imported by the Iberian conquerors, its identification with *burayan* et.al. would present no major difficulties. These and similarly involved questions, such as that of possible connections with a root **bVr-* "to turn, to whirl; to boil" will, perhaps, be clarified by the time colleagues from all over the world will celebrate Professor Pentti Aalto's seventieth birthday.

R e f e r e n c e s

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Footnotes

¹The bibliographical abbreviations are listed among the references at the end of the article. The sources of Uralic and Altaic vocabulary are well known, there was no reason to list them *in extenso*. To denote the languages the following abbreviations were used: CA = Common Altaic, Cher. = Cheremis, CT = Common Turkic, CTU = Common Tunguz, Evk. = Evenki, Fi. = Finnish, FU = Finno-Ugric, Lp. = Lapp, Ma. = Manchu, MO = Mongol, MOClass. = Classical Mongol, Ost. = Ostiak, OT = Old Turkic, PA = Proto-Altaic, PFU = Proto Finno-Ugric, PTU = Proto-Tunguz, Sam. = Samoyed, SamO. = Ostiak Samoyed, SamYur. = Yurak Samoyed, SH = Secret History of the Mongols, TU = Tunguz, TUR = Turkic, Vg. = Vogul, Zyr. = Zyryen.

²According to Dobrodomov the Turkic *borča*, used as a military term, was borrowed by some Old Russian sources.

