Burushaski Shepherd Vocabulary of Indo-European Origin

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Abstract

The etymological analysis of Burushaski shepherd vocabulary shows that almost all the pastoral terms in this language are of Indo-European origin (some thirty independently of Indic and Iranian), with a significant proportion showing close correlations with the Paleobalkanic substratal shepherd terms. Considering the conservatism of this semantic field and together with the precise, specific and systematic phonological, grammatical and lexical correspondences, this is further evidence for the Indo-European and Balkan origin of Burushaski.

Keywords: Burushaski, etymology, shepherd vocabulary, Indo-European, ancient Balkan languages, Albanian and Rumanian substratum.

1. Introduction

Burushaski, still considered a language-isolate,¹ is spoken by around 90,000 people (Berger 1990: 567) in the Karakoram area in North-

¹ There have been many unsuccessful attempts at correlating it with Basque, Nubian, the Dravidian languages, Munda, various Caucasian languages,
West Pakistan at the junction of three linguistic families – the Indo-European (Indo-Aryan and Iranian), the Sino-Tibetan and the Turkic. Its dialectal differentiation is minor. There are three very closely related dialects: Hunza and Nager with minimal differences, and the Yasin dialect, which exhibits differential traits, but is still mutually intelligible with the former two.

The earliest sketchy descriptions and word lists of Burushaski are from the mid to late nineteenth century (e.g. Cunningham 1854; Hayward 1871; Biddulph 1880; Leitner 1889). The limited dialectal differentiation and the lack of older attestations make the internal historical reconstruction extremely difficult.


Berger’s (2008) posthumously published synthesis is instrumental in establishing aspects of the historical phonology and morphology of Burushaski and its internal reconstruction.

In our comparative historical work (Čašule 1998, 2003a, 2003b, 2004), we have uncovered regular phonological correspondences between Burushaski and Indo-European (outside of Indic and Iranian) in over 550 lexical correspondences, largely in core vocabulary and in compact semantic fields (the correspondences [over 70 of them] in the names of body parts can be found in Čašule (2003a). Most importantly, and highly significant in determining genetic relationship, we have found very significant and fundamental derivational and

...
grammatical\(^2\) correspondences (in the personal pronouns, the whole system of demonstratives, nominal case and plural endings and derivational suffixes, the numerals, verbal prefixes, suffixes and endings, the complete non-finite verbal system, all of the adjectival suffixes, adverbs, postpositions, etc.).\(^3\) We concluded that Burushaski displays characteristics of a language which could have had an early relationship or contact in its history with the Southern (Aegean) branch of Indo-European on the one hand (see esp. Čašule [2004], on the possible correlation with Phrygian) and with the Northern/Western Indo-European group on the other.

For easier reference, we reproduce Berger’s table of the phonological system of Hz Ng Burushaski, which is essentially valid for the Yasin dialect as well (Yasin Burushaski does not have the phoneme \(\text{çh}\) [Tiffou-Pesot 1989: 7-9]):

**Table 1. Phonological system of Burushaski (Berger 1998 I:13)**

<table>
<thead>
<tr>
<th>a</th>
<th>š</th>
<th>š</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>e o qh kh řh th čh čh čh ph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i u q k ř t č č č p</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ģ g d d j j z b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ň n n m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y h l r</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. All five vowels can be phonetically long, but for prosodical reasons Berger marks them as double (two component) vowels, in order to mark the position of the stress.
2. Retroflex consonants are marked with an underdot.
3. \(w\) and \(y\) are allophones of \(u\) and \(i\).
4. \(č = \text{ts}\) in Lorimer and \(č\) in Tiffou-Pesot (1989).
5. \(ń = [ŋ]\) or [ng] [nk].


\(^3\) For a detailed appraisal of this evidence, see Alonso de la Fuente (2006).
6. y is a retroflex, articulated somewhere between a “r grasseýe and a γ or rather a fricative r with the tongue in a retroflex position” (Morgenstierne 1945: 68–9).

We summarise below the established phonological correspondences between Burushaski and Indo-European (for the exemplification, analysis, and the internal variation, refer to Čašule (2003b: 24–42):

Table 2. Summary of Burushaski-Indo-European phonological correspondences.

<table>
<thead>
<tr>
<th>IE</th>
<th>Bur</th>
</tr>
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<tbody>
<tr>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>e</td>
<td>Ys e : Hz Ng i</td>
</tr>
<tr>
<td>e (unstr.)</td>
<td>a</td>
</tr>
<tr>
<td>ë</td>
<td>ë, i</td>
</tr>
<tr>
<td>o</td>
<td>ó</td>
</tr>
<tr>
<td>o (unstr.)</td>
<td>a</td>
</tr>
<tr>
<td>ò</td>
<td>ò, òo</td>
</tr>
<tr>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>u</td>
<td>u</td>
</tr>
</tbody>
</table>

IE ai, ei, oi; eu > Bur a

IE au, ou > Bur u

PIE h₁- > Bur h-4

PIE h₁e- > Bur he-

PIE h₁er- > Bur har- : -war- : her-

4 In Čašule (2003b), we provide an in-depth analysis of the Burushaski laryngeals and their direct correspondence with the Indo-European laryngeals. We follow the approach by Adams and the editorial board of Mallory-Adams (1997: 462) where four PIE laryngeals are assumed: h₁, h₂, h₃ and h₄. In this set, h₂ and h₄ colour an adjacent *e to *a and h₃ colours an adjacent *e to *o, and are considered to have been pharyngeal and/or laryngeal continuants (fricatives). The first laryngeal h₁ does not cause colouring and has been assumed to be a glottal stop. Adams uses the symbol h₅ when, because there are no Hittite and Albanian forms, it is impossible to determine whether the laryngeal is h₂ or h₄. A generic h₅ is used when there is evidence for a laryngeal, but its exact nature cannot be determined. Most Indo-Europeanists, if not all, accept the existence of at least one laryngeal confirmed by its attestation in Hittite and other evidence, but the three-laryngeal theory also enjoys wide acceptance, whereas the fourth laryngeal has been more often disputed than not.
| PIE h₁- | > | Bur h- |
| PIE h₂e- > h₂a- | > | Bur ha- |
| PIE h₂ou- | > | Bur hu- |
| PIE h₂ue- | > | Bur -we- : -wa- |
| PIE h₃e- > h₃a- | > | Bur ha- |
| PIE h₄- | > | Bur h- |
| PIE h₄e- > h₄a- | > | Bur ha- |
| PIE h₃- | > | Bur h- |
| PIE h₃e- > h₃o- | > | Bur ho- |
| PIE h₅- | > | Bur h- |
| PIE h₁/₂- | : | Bur l- |
| PIE -eh₁- | > | Ys -ē : Hz Ng -ee- : -ii- |
| PIE h₂eh₁- | > | Bur -aa- |
| PIE h₃eh₁- | > | Bur -oo- |
| PIE -er/lh₁/₂- | > | Hz Ng -ii-r/l : -aa-r/l [Ys: -aha-r/l] |
| IE l, m, n, r- | > | Bur l, m, n, r |
| IE ū- | > | Bur -w/-u |
| IE ū incarceration | > | Bur b- |
| IE ū- | > | Bur y/i |
| IE ū- | > | Bur -um, am |
| IE ū- | > | Bur -un, -an |
| IE ū- | > | Bur -ur, -ar |
| IE ū- | > | Bur -ul, -al |
| IE p- | > | Bur ph-, also b- |
| IE -p-, -p | > | Bur -p-, -p |
| IE b | > | Bur b |
| IE b | > | Bur b, also m |
| IE t | > | Bur t : th : ţ , also d- |
| IE dh- | > | Bur d- |
| IE VdhV, -dh | > | Bur -t, -ţ, -t |
| IE d | > | Bur d |
| IE k | > | Bur k : kh, also g- : ǵ- |
| IE kʷ | > | Bur k |
| IE R | > | Bur k, kh, also g- : ǵ- |
| IE g, gh | > | Bur g, ǵ |
| IE gʷ | > | Bur g, ǵ |
| IE ǵ | > | Bur g, ǵ |
In this paper we look closely at the Burushaski shepherd vocabulary and analyse the lexical correspondences with Indo-European, particularly outside of Indic and Iranian. We first look at twenty correlations in names of ‘small cattle (goats and sheep)’ (sections 2.2.1–2.2.4) and at eleven related shepherd terms (‘shepherd’, ‘byre’, ‘grazing ground’, ‘wool’, ‘flute’) (section 2.2.5).

So far, all of these terms have been deemed to be autochthonous Burushaski words by Berger and Lorimer and other scholars, with the exception of Bur dāgar Ng ‘ram’, ex. [13], which has been tentatively linked by Berger to Indo-Aryan.

We have labelled the validity of the etymologies, in the sense of original Burushaski words of Indo-European (non-Indo-Iranian) origin, as follows: C = certain, VP = very probable, P = probable, T = tentative. Although such assessment can be subjective, some of the well known criteria applied are: the systematic character of the phonological correspondences, drawing on internal reconstruction where possible, consistency with the phonological processes, alternations, changes and adaptations typical of Burushaski, minimal to no semantic latitude, specific semantics, antiquity in IE, improbability of borrowing, consistent correlations with particular IE groupings and in other semantic fields, avoidance of “root” etymologies, links involving a derivational cluster (e.g. noun + underlying verb, noun + underlying adjective, several nouns + underlying verb, adjective + underlying noun; noun, adjective + underlying verb etc.), correlation of longer phonological segments, etc.

The sources for the IE material are Gottlieb (1931), Pokorny (1959), Watkins (2000), Mallory-Adams (1997), Mallory-Adams (2006) and Buck (1949). It is important to note that the Burushaski material has already been sifted carefully for Persian, Urdu and Indo-Aryan loanwords by Berger, Lorimer, Morgenstierne, Zarubin, Edel’man, Klimov, Varma, Tiffou, Buddruss, Tikkanen and other scholars who have studied the language – their findings are conveniently incorporated in Berger (1998). The main source we have
In all our etymologies we have excluded all cases where there is a full match (phonological or semantic) with Indo-Aryan. It could well be that in some cases we may be identifying as Sanskritisms the native Burushaski Indo-European vocabulary. Thus, for example, in Berger (1998) there are 45 Burushaski stems not found in the surrounding Indo-Aryan languages which he relates directly to Turner’s Old Indian entries, sometimes with no intervening attestations within Indo-Aryan, and with little (or inconsistent) historical change. The phonological rules for Sanskrit borrowings into Burushaski cannot be less systematic just because of the close geographical and historical proximity of the two languages.

2. Etymological analysis of Burushaski pastoral terms of IE origin

2.1. Indo-Aryan and Iranian borrowings

Burushaski has only a handful of borrowings in words denoting sheep and goats. We list first those already identified: Bur war ‘full-grown ram (entire)’, rúše war ‘Ovis poli ram’ from Wakhi war, wär, Lorimer also points tentatively to Khw werkalu ‘ram’ (L 371) (B 464); Bur ruš ‘Pamir wild sheep, Ovis Poli’ < Wakhi riš, Sh rūš (B 366); Bur buč ‘he-goat, two or three years old, not castrated’ (B 60) (L 86) (possibly from Wkh buč registered only by Lorimer); Bur don ‘big herd’ (also in Sh) < T 6717).

To these we can add Bur baqtá Hz Ng ‘a type of big sheep’, NH ‘fat tailed sheep’, Ys baxtá, (Sh baktá, Khw baxtá) (B 38) from Persian bakhta ‘a ram three or four years old; a fat tail’ (Steingass 159) and Bur čhágéni NH ‘black goat’ (B 95) [and possibly Bur čhigir ‘goat’ (B 76)] < Skt čága- ‘he-goat’ (< IE *(s)cágos- ‘sheep, goat’, M-A2 140).

5 I am grateful to E. Bashir and C.P. Zoller for their assistance with the Indo-Aryan material, and to J.A. Alonso de la Fuente and É. Tiffou for their comments, but the responsibility for all shortcomings is mine.
Bur also has mešš ‘bag of skin, (…) holds 24–40 lbs of grain’ (in Sh kalaḍu) which is not found in the surrounding Indo-Aryan or Iranian languages (L 286). Berger (B 286) points to T 10343, i.e., Skt *maśya- ‘ovine’, also T 10334 mēṣā ‘ram, sheep; fleece, skin’. It is curious that the meaning of the Burushaski word corresponds closer esp. to Lith mašas ‘bag’, Lett maiss ‘sack’ or OSl měxu ‘sack, skin, fur’ (M-A2 140) than to the Indo-Aryan developments – nowhere in Indo-Aryan, according to Turner, do we find the meaning ‘sack’ or ‘bag’.6

Further borrowings from Indo-Aryan are: Bur uriś ‘male young sheep, castrated’ (B 457), noted as a loanword from Shina, where we have both urīn and urīn (< T 2349: Olnd urāṇa- ‘ram, sheep, young animal’) from an IE *urh₁en- ‘lamb’ (M-A2 140) and Bur Ys bran ‘ram’ (LYs 50) (BYs 135) possibly from Khw bran ‘same’.

2.2. Burushaski autochthonous pastoral vocabulary of Indo-European origin

2.2.1. Sheep and goats jointly

The overwhelming majority (80–90%) of the Burushaski terms denoting ‘sheep’ or ‘goats’ can be traced to Indo-European – that is the case with 9 of the noted loanwords from Indo-Aryan or Iranian (Persian) and the 20 autochthonous IE terms outside of the Indo-Iranian sphere which we discuss in this subsection.

The basic Bur word for ‘small cattle, sheep and goats’ has a firm Indo-European etymology:

[1] [C] Bur huyēs (sg and pl) ‘small cattle (i.e., sheep and goats)’ (B 209) (L 211) (Will 66: ‘a sheep; a goat; a flock’), in Ys also: huiś (T-P 140). We should note the difference between Burushaski and neighbouring Shina ēi ‘sheep’ and Wakhi yobc ‘ewe’, which eliminates them as a source of borrowing. Burushaski also has [2] [C]

6 Morgenstierne (1935: XXII-XXIII) indicates that “Burushaski retains here the § which would have been lost in a modern Shina word, and also a very ancient meaning of the word.”
huyòö ‘wool-bearing animal, sheep’ (L 208) (B 209) (the latter < *huyyoo with a suffix –yo-, see the discussion in [27]).

There is a direct and remarkable correspondence with IE *h₂ópis⁷ (gen. *h₂ópios) ‘sheep (Ovis aries)’: OIr ṥhí, Lat ovis, ON ðær, OEng ọwáu, OHG ou · ouwi ‘sheep’, Lith avis, Lett avs, PSI *ovća (e.g. Med ovca) < *ovi-kā, Luw hāwa/i-, Lycian xawa, OInd ávi, all: ‘sheep’, (Pali avi ‘ram’, Shina ėi ‘sheep’, etc.), Arm hoviv ‘shepherd’, Gk ó(w)ís ‘sheep’, Wakhí yobc ‘ewe’, TochB eye (<*h₂óqēśis) ‘sheep’, pl. awi ‘ewes’ (M-A 510) (G 461) (IEW 784–*óqī-s).

Berger (B 209) cites a form hunyes ‘sheep, goats’ in Hayward (1871), not registered by anyone else as such in his time or later, which indicates it is most likely an error, especially as the group ny would need to have been preserved in Yasin. It could however be explained by derivation from Indo-European as well, from an IE *h₂ou-s, as in Baltic *awinas > Lith ėvinas, Lett avins, ėunūs, OPruss awins and OSl ovīnū all: ‘ram’ (Vasmer III:113, “from an old Indo-European augmentative”) and as adjective in Latin ovīnūs ‘ovine’.

The exact semantic and phonological correlation (the preservation of the laryngeal, hōqi > huı, -s) with Proto-Indo-European is remarkable in this word attested in eleven of the main groups, which shows once again the “resilience” of basic shepherd vocabulary.

The other basic Burushaski word for ‘sheep, goats’ jointly can be linked tentatively to Indo-European:

[3][P] Bur acás ‘sheep and/or goat; small cattle’ (L 8) (B 11).

We suggest a possible link with IE *h₁ei₂s- ‘goat’ (M-A 229) (in Wat 1, without a laryngeal: *aih-): Alb edh ‘kid’, Gk áiks ‘(she-) goat’, Arm eyc ‘(she-) goat’, Av izaēnā ‘(goat) hide’. Perhaps in some way related, and closest to the Burushaski form, note also Phrg aseys ‘he-goat’ (Haas 1966:158).

In Burushaski we would have the usual changes ai > a and ĝs > ks > š and we would have expected a form *asás or *asís. It is indicative, however, that we can find examples where we have a ē : š

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7 Some reconstruct the PIE form as *h₁eqi- (e.g. Danka 1986: 314) > *h₂ŋi- — both interpretations are possible for Burushaski, where subsequently ou > ů.
variation in Burushaski e.g. \textit{mašīś : mačīś} (B 283) or \textit{ašūs} vs Sh \textit{ačūṣ} (B 23). Influence from forms like OInd \textit{ajā} ‘he-goat’ or Av \textit{aza} ‘he-goat’ (< IE \*\textit{haegōs} ‘he-goat’) cannot be excluded entirely. In Burushaski, considering the ending -\textit{as}, maybe < IE \*\textit{hēgios}, as e.g. Lith \textit{ožys} ‘he-goat’ (IEW 7).\footnote{Starostin (1988: 114), in a tentative list of lexical correspondences between Proto-North Caucasian and PIE, correlates both PIE stems [\*\textit{haeīgs}- and \*\textit{haegōs}] with Proto-Adyghian-Kabardian \*\textit{ačā} ‘he-goat’, Adygh \textit{ača}, Kab \textit{āža} ‘same’, also with East Caucasian and notes Dumézil’s (1963: 13) earlier correlation of the Adyghian word with IE. Starostin (1988: 154) is inclined to see here borrowings from Proto-North Caucasian into IE. Burushaski seems to fit well in this analysis – having the stem of PAK \*\textit{ačā} + the IE suffix (?) -\textit{s}, although the Burushaski word could have developed independently and directly from PIE.}

The next Burushaski word has a firm Indo-European etymology and refers both to ‘goatskin’ and ‘sheepskin’:

\begin{itemize}
    \item [4] \textit{Bur bat} ‘goatskin, sheepskin; animal hide; a shape, a form, a likeness’ (Will 21) (B 44). Further, Berger derives from \*\textit{u-baṭ} > Bur -\textit{wāṭ} \‘skin, body; person’ and \textit{wāṭ} ‘bark, a peel, rind’ (B 466) (Will 74). Note also Bur \textit{baṭā} ‘bald; hornless’ which Berger relates to the same stem (compares it with the semantics of ‘skinhead’) (B 44), where we have an exact phonetic match with the IE form below, with -\textit{a} < -\textit{eh₂} in the auslaut.
    \item Most likely related, reflecting the \textit{p : b} alternation in IE below, is Bur \textit{phaṭāko} Ng ‘bald’, which Berger (B 327) links with \textit{baṭā} ‘bald’ (B 44).
    \item The Burushaski words correspond directly with IE \*\textit{baiteh₂-} ‘goatskin, cloak’ (OEng \textit{pād} ‘coat’, OHG \textit{pfeit} ‘garment’, Goth \textit{pāda} ‘tunic, shirt’, Gk \textit{baite} ‘shepherd’s or peasant’s coat of skins; tent of skins’, maybe also Alb \textit{petk} ‘clothes, garment’ (IEW 92–3: \*\textit{baita} ~ \*\textit{paita} – considered in Greek possibly from a Thracian source) (M-A 109–110: “may be but need not be a borrowing from a non-IE source”).
\end{itemize}

In the following very complex example the reference is to ‘kid’ or ‘lamb’:\footnote{A hyphen preceding a word indicates that it is used only with pronominal prefixes.}
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súmphalikis, with -ph- in L and B, in L also súmpal, súmalkis, súmapalikis ‘(L very) young female kid or lamb’ (L 318, also ‘a derogatory term for effeminate man’) (B 385). Berger derives it from sum ‘female animal’ (B 384) + the second component that does not occur independently. [We (Čašule 2003b: 31 and 2009) have traced sum ‘female animal’ and sumán ‘male animal’ together with Bur -isamanum ‘first-born (son, daughter, young animal)’ (L 47) from IE *sem ‘one’ with a semantic development as in Slavic, e.g. Russ samec ‘the male animal’ and samka ‘the female animal’ (Buck 139–40).]

Burushaski also has šépalkis ‘sheep with fine wool’ (L 326) (B 394) (Leit šépalis q. in Berger 2008: 19.3) where še ‘wool’ [28], and šékiš ‘woolly’ (B 392), also the compound bišképalkis ‘wool-carrying, wool-producing animal’, Ng also bišképalis11 (< bišké ‘hair [of animals], fur’) (L 84) (B 56, in Berger 2008: 19.3, also ‘wool’) (see under [8-9]). -kiš may be the productive suffix deriving adjectives from nouns in Burushaski (B I: 19.6).

The Burushaski stem -p(h)al-(with e>a in an unstressed syllable, see B 1:2.5 and below), can be related to IE *pelh2- ‘bear young’ (found in the West Central IE area): Alb pjell ‘give birth to, produce’, pjellë ‘child’, pelë ‘mare’, Gk pôleos ‘foal’, Arm ul ‘kid, young of deer or gazelle’, Eng foal (M-A2 192). Burushaski would have lost the underlying verb (like Gk, Arm or Eng), yet note that in bišképalkis ‘wool-carrying, wool-producing animal’ the semantic element of ‘bear, produce’ comes to the fore. The Burushaski semantics of ‘kid’ or ‘lamb’ fits neatly with the other semantic developments. Particularly interesting is the correspondence between Burushaski and Albanian, considering the large number of correlations in shepherd vocabulary between the ancient Balkan languages and Burushaski.

10 The basic Burushaski word for ‘lamb’ is mamdši, derived by Berger < mamd ‘milk’ + šé- ‘to eat’ (L 253) (B 277), clearly an independent innovation.

11 Berger (ibid) indicates that the forms without -k- should be seen as secondary.
We can analyse símphalikis into four components: sum + phal + i + kisz : < *sum-pel(h2)-yo-kirsh 12 or rather < *sum-pel(h2)-yo + *kirş : sum- ‘female animal’ + -phal- ‘young [newborn = ‘very young’] animal [kid, lamb] + a suffix -i- possibly from the relational suffix -yo- discussed in [27] [for a change -yo- (unstressed o) > -yu- > i, note Berger’s analysis (2008: 19.15) of Bur Ys čumánikis < *čul-mánu-kisz] + -kisz < kisz ‘interjection for driving away sheep and goats’ (NH ‘sheep’ in children’s talk) (B 245) < *kiršo, of Indo-European origin, < IE *kër(s)- ‘horned; sheep, ram, etc.’ see [10-12].

The semantic structure of the compound noun would thus be ‘female’ + ‘very young, newborn’ + ‘sheep’ (or ‘horned small cattle’): lit. ‘female animal+very young+of+sheep/goat’, i.e., ‘very young female lamb or kid’.

The form símpal could be a backformation (as per Berger 2008: 19.3), or perhaps proof that the ending -kisz is not actually a suffix here, but a noun.

Berger (ibid) considers -kisz in these examples to be the Burushaski adjectival, but also nominal suffix (B I: 19.6), which is probable – identifying it in our analysis as the final morpheme would not change significantly our etymological analysis.

Berger (2008: 131–2) offers a different etymological solution. He derives -pal- from bélis (L also bélis), Ys béles ‘ewe (which has had young)’ (B 48) [14], which in turn he derives from a hypothetical adj. *bélkis and ultimately from bé- ‘to put on clothes’ (a stem of IE origin in our analysis < IE *gel-, see the discussion in [27]). He doesn’t seem to account for the -i- in símphalikis or símpalikis, and the postulated change -mb- > -mp- is difficult to substantiate.

His appears to be a weak etymology on several accounts: if the original word means ‘young female kid or lamb’, there would be no need to indicate especially ‘female sheep’ twice (by using sum-) and in the other compound nouns it refers to ‘sheep’ in general. The suggested change -kisz > -isz would be most unusual, if not impossible. Moreover, the Ys form wél- ‘to put on clothes’, points to an older form with w- for Hz, Ng bél- ‘same’ (although Berger [2008: 69)

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12 For the change rš > š see e.g. the derivation of gas ‘price’ (B 150) or baş ‘bridge’ (B 43).
suggests the Yasin verb may derive < *u-bel-). And while a direct semantic derivation from ‘to put on clothes’ to ‘wool’ is common, much less plausible is a direct link from ‘to put on clothes’ to ‘young sheep or kid’.

It may be possible that -pal- and bélis are actually related (see [14]), yet with a change p > b rather than b > p. The semantic derivation is different to Berger’s – from a semantics of ‘borne’ > ‘kid’ or ‘lamb’ and ‘bearing young’ > ‘ewe, which has borne young’ (similar to the correlation ‘foal’ and ‘mare’ in the Albanian examples above). This provides a coherent frame for all the noted examples.

Berger goes on to stipulate that the form Ys beskáret, Hz Ng baskaráñ, Cunn. Leit. “bashkar” ‘wether, ram (over 2 years old, castrated)’ (L 72) (B 42) should be derived from a “highly reduced first component,” i.e., traces bes- < *belikis or belis or belis which is highly unlikely (we would also expect compensatory lengthening of the preceding vowel), and for such a radical change there are no other examples.

The Burushaski words are not found as such in any of the neighbouring languages, but there are some developments in Shina and Đomaaki on the one hand and Balti on the other, that need to be addressed and explained in order to rule out any borrowing.

As for Shina, Lorimer (in personal communication to Turner (noted in T 8125.2) cites Sh pālo ‘young animal’ > Đom pālo ‘same’ (not correlating it with Burushaski). These words most certainly would have been noticed and rejected by Berger who makes excellent and very precise use of Turner. They are at odds semantically with the other derivatives in Indo-Aryan: Kal palō(i) ‘cattle-shed’, Bshk palō ‘same’, Panj pāl ‘herdsman, shepherd’ < OInd (reconstructed) *pāl ‘flock’ < OInd (also reconstructed) *pāla ‘protection’, ultimately from OInd pālā ‘protector; herdsman’, pālaka ‘guardian’ (T 8125). The meanings ‘herdsman, protector, guardian; cattle-shed’ as per Turner and (implicitly) Lorimer, are not recorded for Sh, Đom or Khw, and only in Pk pāl ‘keeper’, Ksh pāl ‘shepherd’, Ku pālsi ‘shepherd’. Note also OInd avipāla ‘shepherd’ (T 893). The direct contact and the many borrowings between Burushaski and Shina could suggest the Burushaski words above are loanwords from Indo-Aryan. Yet, as we have indicated in the introduction, close proximity and language contact cannot absolve us of a systematic explanation.
The problems with considering súmphalikis a Shina loanword into Burushaski are:

1. Semantically, the Shina word does not refer specifically to ‘kid’ or ‘lamb’ or ‘sheep’, but to ‘young of animals’ (in general). Within Indo-Aryan this meaning is kept only in the two languages, Shina and Đomaaki which in their intensive contact with Burushaski have borrowed readily from it. Moreover, the semantic shift in regard to Old Indian or Indo-Aryan is on the borderline of acceptability (a direct semantic derivation of the word for ‘young animal’ from the word for ‘shepherd’ seems to us impossible, so too from ‘herd’). Within the Indo-Aryan developments above, both Shina and Đomaaki stand out as the only ones with a shift to ‘young animal’ [even in T 8100: pāra ‘bringing across’ which Turner gives as the ultimate source for OlInd pālā (above) there are no derivatives denoting any kind of small cattle or other animals].

2. Phonologically, when Burushaski borrows Shina (or for that matter Urdu) words with a long vowel, e.g. Sh rajāki (T 10694) > Bur rajāki (B 362); Sh jáalo (Pers jālah, Khw jālo) > Bur jāalo (B 219); Sh dáado (T 6261) > Bur dáado (B 108); Sh đāar (T 6793) > Bur đāar (B 109), etc., the vowel length is retained, which is not the case with the Burushaski pastoral term above.

If Burushaski had borrowed the stem from Shina, it would have retained the -o in súmpal as well, since according to Berger (B I: 209), it has actually borrowed this suffix from Shina.

In Burushaski words borrowed from Shina, we have not been able to find a change p- > ph-, whereas in the older Indo-European layer this is a regular change (Čašule 2003b: 34).

3. The only available source for the Shina word seems to be Lorimer, i.e., his example comes most probably from the Burushaski speaking or adjacent areas, and a strong argument can be made that it is actually a loanword from Burushaski into Shina and Đomaaki.

We should comment further on the Balti (Burushaski’s Tibetan neighbouring language) word bal, (Tib bal, also Nep bal) all ‘wool’ (RYTEDD online – in all examples it means ‘wool’ and not ‘sheep’ or ‘kid’). It is very difficult, if not impossible, to correlate with it Bur súmphalikís – where the only basic meaning is ‘female kid or lamb’ or the compound words with -p(h)al- where a first element meaning ‘wool’ needs to be added, as in: šépalkis ‘sheep with fine wool’,
where še ‘wool’, and the compound bišképalkš ‘wool-carrying, wool-giving animal’ where bišké means ‘hair (of animals), fur’, as the stem does not refer to ‘wool’. If the basic meaning of the second component of these compound nouns were ‘wool’, there would be no need to mark that twice. Furthermore, the phonological change mb > mp(h) would be highly unusual. Moreover, if there is a link with [14] bélis ‘ewe (which has had young)’, which is probable, then the discrepancy in the stem vowel cannot be explained. All of this rules out Balti as a source for the Burushaski words as well.

All the adduced evidence in our etymological explanations makes this a firm correspondence.

[6] [VP] Bur du ‘kid (up to one year old of either sex)’, NH also dōdo (L 139) (B 123).

It can be correlated internally with a cluster of Burushaski words which we have derived (Čašule 2003a: 36–37) from IE *dhē(i)- ‘to breastfeed’ (IEW 242), also with the -l- formant, i.e. < IE *dhhıleха- ‘teat, breast’, *dhehılus ‘nourishing, suckling’ (M-A 82, who consider this form a northwestern and late IE word for ‘teat, breast’).

The stem is strongly represented in Burushaski and cannot be traced phonologically or semantically to Indic or Iranian: (1) Ys -díl (BYs 142), Hz Ng -ndıl ‘breast, chest’ (L 276) (B 302) (cp. with Mr deil ‘teat’, OHG tila ‘woman’s breast’, OEng delu ‘breast, teat’, ON dilkr ‘lamb’) and further with (2) Ys dāláś ‘boy, young lad’ (BYs 142), Hz Ng hílés ‘boy, lad, youth (unmarried); child, infant’ (L 201–202) (B 198) (the last form is considered secondary by Berger (2008: 55), derived from the form with d-) (cp. with Lett dēls ‘son’, Alb djalē ‘boy, young man, son’ (reconstructed by Čažel 1976 [apud Desnickaja 1984], from OAlb *delās ‘a boy’), Lat filius ‘son’; (3) Bur dīltar ‘buttermilk’ (e.g., Alb dhallē ‘buttermilk’, also Alb dele ‘sheep’, and further Illyr dalm- ‘sheep’ (IEW 242), and possibly (4) dīnu ‘teat of udder’ (B 125) (cf. from the same stem Ofr denaid ‘teat’ (< *dhi-na-ti), dīνu ‘lamb’). For a discussion of the alternation i'u/₁r, manifested here, see Berger (2008: 2.10).
In light of all these examples, it is very likely that Bur *du* belongs to the same cluster.  

2.2.2. Sheep
2.2.2.1. Sheep (specific)

[7] [T] Bur *šópan* ‘sheep’s meat’ (‘Schaffeisch oder Buchweizenteig im Schafmagen gekocht’) (also in Sh), *šópan bóin* ‘a shepherd festival’ (B 397).

There is a very tentative possibility for comparison with OHG *scāf*, Grm *Scharf*, OEng *sceap*, Eng sheep, all: ‘sheep’ under an older hypothesis derived from IE *sqeb*- (Gottlieb 1931: 19), i.e., < IE *skē b(h)-*, also *skē b(h)-, *skob(h)- and *skē p-, *skō p-, *skā p- (IEW 930–3) ‘base of words with various technical meanings such as ‘to cut’, ‘to scrape’, ‘to hack’ > ‘creature’ (Wat 77) : Goth *gaskapjan* ‘to create’, OHG *scaffōn* ‘form, cause’, OEng *gesceap* ‘form, creation’, *sceppan* ‘to form’, OEng *sceafan* ‘to scrape, pare away’, Eng *shave*, Grmc *skōpō* ‘thing cut out’, ‘container’, Gk skaphē ‘boat’ (‘thing cut out’), Lat capō ‘castrated cock’, scabō ‘to cut’, scapula ‘shoulder blade’, capulāre ‘to cut’, OSI kopati ‘dig’, skobē ‘scraping knife’ etc. (IEW 930–33). Another etymology of Eng sheep etc. would see it as a dissimilated form of IE *(s)kdegos-* ‘sheep, goat’, e.g. Skt chāgēni NH ‘black goat’ (B 95) and possibly of Bur *čhigir* ‘goat’ (B 76), Osset saγy ‘she-goat’, OEng hēcen ‘kid’ (M-A2 140).

13 There is a curious parallel between the Burushaski reduplicated form *dādo* provided by NH and Illyr deda ‘foster mother’ which Pokorny (IEW 235) indicates may be from IE *dhē(i)- ‘to suckle’ rather than from a child word for ‘grandparents’. There is a further intriguing correspondence between Bur *du* ‘kid’ and Mcd (dial.) *dujak* ‘kid’ (*-jak* is a suffix) (Peev 1988: 41) (the informant explains that it is called *dujak* from *duj-* ‘to suckle, breastfeed’) which is likely to be a coincidence, yet note also Mcd *dude* ‘endearing term (usually) for a small child’ (Dimitrovski 187) which could be a diminutive/hypocoristic in -e from a basic form *dudo* (as e.g., *tate* (dem. hyp.) : *tato* (basic) ‘father’).
In the Burushaski example we have both the meaning of ‘sheep’ and ‘(cut up) sheep’s meat’. In Burushaski: sk- > š, and we would have the ō-grade of the IE stem.

Another more realistic interpretation could seek a correlation with Pers šubān > Turk çoban ‘shepherd’, Srb and Croat čoban, MGk tso pánis, Alb çoban and Rum cioban ‘same’ (Alinei 2003: 51, who considers the Balkan developments not of Ottoman provenience, but of greater antiquity). The semantics in this second etymology only corresponds partially and we would need to seek a modern Turkic or Iranian source for the Burushaski word.

2.2.2.2. Ram

[8] [C] Bur Ys beska ret, Hz Ng baskarát, Cunn. Leit. ‘bashkar’ ‘wether, ram (over 2 years old, castrated)’ (L 72) (B 42).

And further, [9] [C] Ys (DC) bešké, also bišké, Hz Ng bišké ‘hair (of animals), fur’, bišké šiqá14 ‘Verbascum thapsus Linn., = kleineblütige Wollblume, an Quellen’, and the first component in bišképalkis ‘wool-carrying, wool-giving animal’ (L 84) (B 56) and perhaps bišqár adj. ‘raw, rough wool’ (B 56–7). The forms ending in -e would point to a genitive form from *bes-ka or *bis-ka (-e is the Burushaski genitive and ergative ending). The forms with -s- are certainly older, i.e. sk > šk. The derivation of Ys beskáreš could be from *bes-ka-r(u)-eti (< ‘wool-giving’).

This is an important direct correspondence with Alb bashkē ‘sheep’s wool’, Rum bască ‘same’, considered of substratal Paleobalkanic origin by Brâncuș (1983: 40–1), who analyses -kē as a suffix. Several etymologies have been put forward for the Albanian and Rumanian words, e.g. 1. From a Thrac *baska, *vaska ‘wool’, derived with the suffix -ka < IE *ges- ‘to clothe’. 2. Russu (apud Brâncuș (41) (less likely) < IE *bhasko- ‘band, bundle’ (e.g., AncMed báskoi, Lat fascis ‘bundle’).

Correlatable to IE *wes- ‘to clothe’ (Wat 101), Burushaski also has the verb -wāšī ‘put s-thing in or on’, (for γ-sg objects bišā-) ‘put on; wear; don (clothing); fix, attach; fit; throw; suspend, hang (etc.)’ (Will

14 Compare with the common genitive syntagms like e.g. čar ‘sentry, watchman’: čáre šikáari ‘watch tower’ (B 69).
(B 56), which can be linked with the first of the proposed Paleobalkanic etymologies, as IE *u- > Bur b-, thus beskáret < *wes-karet and bešké < *weš-ka < *wes-i-ka.

Lorimer (L 35 and 372) provides forms of the verb with an -e- stem vowel, and gives both -wásias and -wéisias and the pp. only as n-wēšin (with many of his examples also with -e- as the stem vowel, which could explain the change ě > i in the form bišá-), 16 which points to an older form with -e- consistently corresponding with IE -e-, thus not derivable from OInd vástē ‘to put on clothes’ or Av vaste ‘same’ (IEW 1173). Bur -s- < s-ī for this change, see further Berger 2008: 19.19). For the Burushaski stem ending -i-, the Alb vesh ‘to dress’, from the same stem, is very indicative, as Orel (1998: 501–

15 For example: IE *qer- ‘high raised spot’, zero-grade form *qer -(Wat 99) > Bur -dṛi and -dṛiṣ ‘crest, ridge, peak; prong; fingernail’, and Bur budri ‘crest of hill, peak’ (B 66).

IE *gēl- ‘turn, wind; round’ (IEW 1441–1444): (from the zero-grade) Bur du-dī- ‘wind, become wound up’ (B 454), also: Bur bal-, -wāl- ‘fall; find oneself in, land in, be beaten; settle down’ (B 32), (cp. with OSI valjati sə ‘roll, fall clumsily’). And further: Bur bal ‘wall’ (B 31), (cp. with Lat vallum ‘palisade, wall’) (IEW 1140) and Bur du-wāl- ‘fly, fly away’, dī-wal- ‘winnow’ (B 463) balās ‘bird’ (B 33), cp. with OSI vljati sə ‘to be cast up’.

IE *gēl- to tear, pull’ (e.g. in PSI *ob-velkti ‘put on clothes’) (M-A 567) > Bur bōl- : Ys wēl- ‘put sth on, don, wear’ (B 47). (Refer to [27] lūyətu ‘tuft of wool, etc.’.

IE *qer-q ‘perceive, watch out for’ (Lith vērt ‘see, look into’, OHG gi-war- ‘careful’, OEEng wariān ‘beware’, Gk horān ‘see’ (IEW 1164) > Bur barēn-, barē- ‘look, look at; look for, search for; look after, look about’ (B 40), also d- waran- ‘require, be in need of’ (B 465).

IE *gōd-ōr- ‘water’ or *ud-ōr- (suffixed zero-grade form) (Wat 95) (or *ud-rō ?) : Bur budōo ‘rinsing water’, Hz also ‘water which becomes warm in the sun’ (B 61).

IE *gōs ‘you plural’ (Wat 102) or *qohl- ‘you two’ > the Yasin doublet for the pronoun for 2 p.pl. wa : ma (T-P 105, 151), Hz Ng ma (through an intermediate *ba ?) (no word in Bur begins with wo-, i.e., all Bur words in w- (in the anlaut) have wa- in Hz Ng (B 462–466) and wa- and we- in Ys).

In total we have identified 25 such correspondences.

16 While Lorimer’s phonological analysis was not entirely adequate, we must take into account his perception of the vowel sounds and phonetics. Being able to draw upon the rich system of vowels in English would have helped him describe more precisely the vowels of Burushaski.)
502) derives it from a PAlb *wesja < IE *woséjeti (or *weséjeti ?) (with the IE caus. suffix *-či-), also Goth wasjan ‘dress’, Hitt wassezzu, Skt vāsāyati (RV) ‘clothes’ (T 11600, in all of IA continued only in Si vasanavā ‘clothe, cover’) (M-A 109). The Bur -i- might otherwise be from the IE *-jo- formations (see the discussion in Casule 2003b: 78), the most important and productive present suffix of late IE, as the Burushaski present stem regularly involves yodation, whereby s > š (see e.g., E-K 30; 60–61).

In relation to the suffix *-k(a) posited above, there are indications of an old, no longer productive Burushaski nominal suffix -k(a) (if not a form of the suffix -ko).

We note examples with the same derivational structure, like Hz Ng bısqā ‘saliva’: Ys mesqē, musqē ‘same’ (L 83) (B 56), with the b:m alternation, most likely from the zero-grade of IE *meus-, *meug- ‘damp, slippery, with derivatives referring to various wet or slimy substances’ (Wat 55) (IEW 744–5) + the suffix -ka. The bare stem is possibly to be found in Bur -mūš ‘snot, nasal mucus’ (B 296).

For this -k(a) suffix, perhaps most relevant to the analysis here (with an unreduced suffix -ka ?) is Bur tharkā and tharā (< ther) ‘strip of dirt on the face’ (B 438) from Bur ther, Ng therk ‘dirty, soiled’ (L 351) (B 439) (see Berger 2008: 124). Berger points also to Bur gašk ‘thick rope for tying loads, for swings’ (B 149) (L 163): < gaško ‘rope’ (B 149) < Ys gas ‘yarn for spinning’ < Bur gišā ‘to weave’ (all grouped together in Berger 2008: 140); also Bur humāk ‘quiver (of arrow)’ < hunē ‘arrow’ (B 205), etc. Further examples we have identified are: tark [23]; also šisk ‘lead’ (according to Berger (2008: 40) with “unclear -k-”); Ys hesk : Hz Ng hisk ‘comb’ [< IE *kes-, e.g. Hitt kiske/a ‘comb’ (IEW 585–586), see under [28] or Ys hēštik ‘innermost part of the house, lying outside the portion enclosed by the four main roofposts’ (LYs 140) (BYs 151), corresponding directly with IE *h2es-ti-s ‘abode’ (IEW 1170) from IE *h2es- ‘dwell, pass the night, stay’ (M-A 171) with the semantics of ‘hearth’, in Bur < *h2es-ti-k(a). From the same Indo-European stem, Burushaski has the underlying verb dōwas- etc. ‘remain, remain over,
live on, stay behind’ (B 462) (in L 140, also d-uesas) (analysed in Čašule 2003b: ex. [16]).17

The correspondence with the Paleobalkanic developments is remarkable.

Berger (2008: 132) (see in [5]) derives Ys beskářet, Hz Ng baskářat from a “highly reduced first component”, i.e., traces bes- < *belikisz, or *belis or *beliš which is not plausible. Furthermore, that does not account for the obvious connection with bešké, bišké.

His suggestion, however, that the component *-karet can be correlated with karélo ‘ram’ [10] is not without merit. In this case we could have had a haplology18 *bes-ka-karet > beskářet. See also the tentative discussion in [13].


And further from the same stem: [11] [C] Bur káru ‘male ibex’ (BYS 157) and [12] [C] krizi and kроzo ‘small cattle (i.e., sheep and goats)’ (BYS 157), kiro NH ‘sheep (in children’s talk)’ (B 245) and khor ‘Schafskörper, dem die Eigenwide herausgenommen sind’ (B 256). Note also khar ‘a call to a sheep or goat’ (B 252), and khirga ‘a call to a sheep’ (B 255, who relates the first component khir-tentatively to kiro ‘sheep’), and further kíso (< *kírs, for the change rs > š in Hz Ng, see the examples and discussion in Berger 2008: 3.26) ‘an interjection for driving away sheep and goats’ (NH: ‘sheep’ in children’s talk) (B 245). Under one interpretation, suggested by Berger (2008), the component -kar-ět in Ys beskářet, Hz Ng baskářat, Cunn. Leit. “bashkar” ‘wether, ram (over 2 years old, castrated)’ (B 42) would also belong to the same derivational cluster (in our analysis < *beska-kareť, see [8]).

The wide representation of the stem (with apophony): -kar- : -khar- : khir- : kir- : khor in Burushaski (10 words), argues strongly

17 Note in this example once more the alternation we : wa.
18 For various examples of haplology in Burushaski, see Berger 2008: 6.13.
in favour of considering Burushaski the original source of these words, some of which were subsequently borrowed into Shina (note further Shina Chilās karā ‘a ram’) and maybe in Wkh kar ‘sheep with short ears’ (q. in Zoller 2005: 103).

There is a direct correspondence with Indo-European derivatives from IE *kṛ- ‘horn’ [with its many ablaut grades, as *ṛ-, *ṛ-, *ṛ-, *ṛ-] : *ṛṛḥ₂ (s), e.g., Gk k keras ‘horn’, TochB karse ‘stag’ [<_ *horned one] or *ṛuru ‘horn’, e.g. Lat cervus ‘stag’, Lith kārvė ‘cow’, Rus koróva ‘cow’, Gk kōrudos ‘crested lark’, Av srva- ‘horn; claw, talon’ and further ON hrūtr ‘ram’, Gk kérnos ‘sheep’, krios ‘ram’, OlInd śṛṇgam ‘horn’, Hitt kar(a)war ‘horns’ (Gottlieb 16) (IEW 574) (G 345–6) (M-A2 137).

Thus, we would have: Bur karėelo < IE *ṛṛ-elo (in Burushaski unstressed e>a), Bur kāru < IE *ṛṛh₂-u- (or *ṛṛ-a- or *ṛ-u), and Bur ḥa < o-grade *ṛor-. Bur krózo can be derived from IE *ṛors- (like Gk Ion körse ‘head’) > *kor-, (with a noted change s>z/r_) + Bur plural morpheme -o and krizí < *križi < *ṛis- < *ṛis-s < *ṛṛ-s < *ṛṛh₂(s) (M-A 2: 137) or from < IE *ṛras- (like Gk ᾳt kğ̣̄spedon ‘fringe’) (IEW 575). Under one interpretation, Bur har ‘ox’ (B 191) could be ultimately derived from the same Indo-European stem, as there are instances where Bur h- seems to derive from k- (as noted by B 381; Morgenstierne 1945: 74; E-K 25, 29; Čašule 2003b: 42) (see also [27]).

Further support for this firm etymology can be found in Bur karóyo (in Sh karóowo) Ng ‘with curved horns’ (B 242)20 < IE kr-jòs with the same suffix *-yo- as in [2] huyoho and [27] lúyó (see the discussion therein).21 Alternatively, it may be from IE *ṛerawo-s

19 Note e.g. Bur burzóna ‘(of people) corpulent’ (B 64), which we have derived from IE *bhris-, *bhers- ‘fast’ (sem. in IE > ‘sprightly, virilis; defiant, forward; big, a lot’ (IEW 143).

20 Note also Ind Koh karā ‘a ram whose horns are turned inwards’ (Zoller 110) which seems to be a loanword from Shina or Burushaski. Zoller (16) estimates that about 10% of the Indus Kohistani vocabulary consists of borrowings from Burushaski.

21 The basic Burushaski word for ‘horn’ is 1tur Hz Ng Ys in Hz Ng also 1-lt̪ur (L 252, 360) (B 270), which in turn we (Čašule 1998a: 47) have very tentatively
or *R̥wo-s ‘horned’. [In Pokorny (IEW 577), derivations from this precise form are registered only in Lat, Cymr, OPrus, Alb, Lith and Sl.] The direct full parallel of the form of the Shina word with IE *Rer̥wo-s ‘horned’ is remarkable. It is possible it may reflect an older Burushaski form.

[13][T] Bur dágar Ng ‘ram’ (B 128). Berger suggests a tentative connection (which he finds dubious himself) with Skt đaṅgara ‘cattle, horned cattle’ (T 5526?) (everywhere in IA, according to Turner it only means ‘cattle’), which is possible, although the Burushaski word does not seem to be found in its Indo-Aryan neighbours, has a very specific semantics and Skt -ṅ- > Bur -m- or -n-.

It can be compared to derivatives from IE *digh- ‘goat’ (IEW 222), i.e., from a form of this stem *deighha-, as e.g. Alb dhi ‘she-goat’ (< *deighha-), and further: Arm tik ‘leather skin’, OEng ticcen ‘kid’, ?Gk dīza ‘she-goat’, Grm Ziege ‘she-goat’, Wkh tiγ ‘goat call’, Ishk dek ‘goatskin bag’ (M-A 229) and possibly the Phrg gloss attagos ‘he-goat’ (D-N 95) (N 137). We cannot exclude the possibility that two stems could have merged here.

The final -ar in dágar could be an old suffix (-ru ?) in Burushaski, as it is found in a number of other animal names, e.g. thugār ‘he-goat’ (B 442) (a word that could be historically related), tulpār ‘a very quick horse’ (L 432), ṭatār ‘tailless rat’ (B 445), butār ‘male kid (the animal) (under one year old)’, ēhindār ‘bull’ (B 65), ēuldār Ys ‘bull’ (B 77), ēhiātār ‘young goat’ (B 76), ēhiār ‘young bull, steer’ (L 364), and maybe biśqār adj. ‘raw, rough wool’ (B 56–7) and bashkar ‘wether, ram (over 2 years old, castrated)’ (L 72) < Ys (DC) beśkē, also biśkē, Hz Ng biśkē ‘hair (of animals), fur’ (see [9–10]).

On the other hand, we could be dealing with a compound word: *dag- ‘goat’ + *kar- ‘horned’ (see the discussion under [8] beskāret and [10] karēelo).

related to IE *tauro- ‘bull’ (Wat 89) < ‘the strong, sturdy, big, [solid] (animal)’ (Gottlieb 22), or rather: ‘horned’ (?).
2.2.2.3. Female sheep, ewe

Bur bélis (L also bélis), Ys béles ‘ewe (which has had young)’ (L 75) (B 48).

Considering the m:b alternation in Burushaski (B I: 82) (for numerous examples see Čašule 2003b: 28), we could correlate this shepherd term with IE *(s)mēlo- ‘small animal’, e.g. Arm mal ‘sheep’, Gk mēlon ‘sheep and goats’ (Wat 80). In M-A2 (142) the stem is given as *(s)meh₁- ‘small animal’ with further examples: Olr mīl ‘(small) animal’, Ukr mal ‘small cattle (as collective stock)’ (Gottlieb 18), ON smale ‘small cattle’, NDutch maal ‘young cow’, Eng small, OSl malū ‘small’ – with a West-Central distribution in IE.

Another etymological interpretation, assuming p>b22 (Berger 2008: 3.11) would be to derive it from *pelh₂- ‘bear young’ (found in the West Central IE area): Alb pjell ‘give birth to, produce’, pelē ‘mare’, Gk psōlos ‘foal’, Arm ul ‘kid, young of deer or gazelle’, Eng foal (M-A2 192) and thus possibly related to [5] sūmphalikis etc., ‘young female kid or lamb’ (refer to the extensive discussion under [5].)

It is significant that we appear to have in this example, and in [15], the IE Nom. sg suffix -is (for further examples and discussion, see Čašule 2003b: 71 and the fifteen names of body parts retaining this IE

22 Other historical examples: Bur baddā ‘sole of foot; step, pace’ (B 29) : OInd padā ‘footstep, track, pace’, in Ys bāyā ‘same’ < (?) Pkt paya- ‘footstep, foot’ < IE *ped-, *pod- (nom. root) ‘foot’ and from IE *ped-, *pod- (verbal root) ‘fall, stumble’: Ys badhā-wāl- ‘fall down on one’s back, fall over, faint’ (BYs 131) (Wat 62). Even in such examples we find the alternation p:b as Burushaski also has paddāy ‘t- ‘kick a stone with the foot’ (which Berger links with a ? with baddā above) (B 310) (See also [17].)

And further examples of a historical change:

IE *peh₁(i)- ‘misfortune’, *pih₁- ‘revile’ (e.g. OInd pāmān- ‘skin disease’, pīyati ‘insults’ (M-A 313). In Burushaski we have Ys bihāi, Hz Ng biāi ‘illness, disease’ (B 50), where the retention of the laryngeal clearly points to an original Burushaski word.

IE *perk- ‘to dig out’ (Wat 66) > Bur biraq- ‘to dig, to dig anywhere’ (B 54).

IE *pel(i)š- ‘rock, cliff’ (Wat 64) > Bur balóṣ ‘a kind of stone’ (Will 20).
suffix in Čašule 2003a). There is another possibility of interpreting it as the IE nominal suffix -es, for which see under [21].

[C] Bur meēnis ‘female sheep over one year old which has not had young’ (L 264) (B 285).

There is a very strong probability that it may be related to an ancient European cultural word of very wide diffusion, particularly in the Balkans. Semantically, the Burushaski word is closest and almost identical to Rum mfnzar ‘female sheep (for milking)’ and mfnzarar ‘shepherd of female (milking) sheep’, mfnzar ‘one year old lamb’, mfnzar ‘calf up to two years old’ and Brâncuș (97–100) considers it a certain substratal (autochthonous) word in the Balkans. And further: Rum mfnz, mfnzu ‘foal (up to one year old)’, Alb (Tosk) mēs, mēzi, (Gheg) māz ‘foal (up to two–three years old)’, also mezat ‘bullock’, Messap Menzanas ‘epithet of Jupiter’ (to whom the Messapians sacrificed horses), Lat manus ‘small horse’ (considered from a Paleobalkanic source in Rum, Alb and Lat), Grm (Bavarian) manz, menz ‘sterilis uacca’, minzkalb ‘iuvenca’, Itl manzo ‘bullock’, manza ‘young cow, sterile cow’ [= ‘cow that hasn’t given birth’], (in Basque mando ‘mule’), Mrl menn ‘kid, young of an animal’, MWels myn ‘young goat, kid’, usually derived from the IE stem *mend-,*mond- ‘to suck, to feed young animals’ (IEW 729).

In Burushaski we would have *mendis > meēnis, with loss of -d- and compensatory lengthening of -e-. For the loss of -d- in the group -nd-, consider e.g. Bur hānīk which B 189 (not found in the neighbouring IA languages) derives directly from Olnd händika (T 14050) or Ys géndes: Hz Ng gēnis ‘gold’ (B 175). Both the specific semantics of ‘young animal’ and ‘not having young’ are present in Burushaski and it matches directly the Indo-European and especially the Rumanian developments.

2.2.3. Goat
2.2.3.1. He-goat
[VP] Bur buqhēní NH ‘goat with distinctive features on the head’ (B 63).

Compare with IE *bhugos ‘buck, he-goat’: Olr boc, Wels bwch, OEng bucca, Eng buck, OHG bok (Gmc < *bhugnō-), Arm buc ‘lamb’, Av būza ‘goat, he-goat’, Olnd bukkα- ‘goat, he-goat’ (T
9312) (M-A 229) (Gottlieb 19, also includes Gypsy buzni). It may be an old loanword from Old Indian, yet everywhere in Indo-Aryan the form has -o- , and the word is not found in the surrounding languages. The -ni ending appears to indicate a closer correlation with the Germanic developments. The -qh-, instead of the usual reflex g (also not corresponding to Indo-Aryan -k-), may be due to expressive reasons, although there is a possibility that the older form would have been *buqni- > *buqhni- > buqhéní (g > q(h)/_C). The same ending -eni (not found anywhere in T 9312) is also found in chagéni NH ‘black goat’ (B 95). For the alternation q : g in intervocalic position see Varma (1941: 141).

[17][C] Bur buťár ‘male kid (the animal) (under one year old)’ (L 90 also būtar and ga buťár “Krähenzicklein”, schwägliches Junges (von Ziege, Steinbock)’ [ga ‘crow’] (L 90) (B 65).

We derive it from IE *qet-ru-23 (*qetéro) (< *qet- ‘year’, e.g. Gk etos ‘year’) similar to OEng wether ‘wether’, Goth wiprus ‘one year old lamb’, Old English veór, OHG widar ‘wether’ < Germanic *wethruz perhaps ‘yearling’, with other suffixes: Lat vitulus ‘calf, yearling’ (Wat 101), Old Norse vatsa ‘year; yearling, calf’, Old High German vitsh ‘calf’ (IEW 1175). Note the close, specific semantic correspondence between the Burushaski meaning ‘under one year old’ and IE ‘yearling’. It may derive from a suffixed zero-grade form *qet-ero- or *qet-ru. It could also have been influenced by forms like buć ‘he-goat, two or three years old, not castrated’ (B 60) (L 86) (possibly from Wkh buč registered by Lorimer), buqhéní NH ‘goat with certain distinctive features on the head’ (B 63), buđóko ‘(very young) foal; small horse, pony’ (L 86) (B 61), bum ‘ibex, markhor’ (L 87) (B 62-3), bušóoso24 ‘calf’ (B 65) or buđ (also bujá) ‘cow’ (B 60) (this last word could be correlated with derivations from an Indo-European onomatopoeic *bu- like ON

23 Starostin (1988:113) gives as an isogloss with the IE words, Proto-East Caucasian *wITvrV ‘child (up to one year old)’: Tsakurian vudra ‘kid up to one year old’, Tsez beduro ‘cub’, Batzean bader, Chechen bër ‘child’ and possibly within a Nostratic etymology (Illič-Svityč 1967: 337).

baula ‘cow’, Russ bykō ‘bull’, Lat būbalus ‘buffalo’ (Gottlieb 1931: 26).

A very strong indication that we may be dealing with a derivative from *ųet-ru- are the following Burushaski forms, where Berger identifies a suffix -āt: as in buāṭar ‘young cow, heifer’ < buā ‘cow’ (L 86) (B 60) or chīāṭar ‘young goat’ (B 76). From a diachronic point of view, these could be compound nouns and the second component, (which clearly means ‘young’ ~ ‘one year old’ perhaps as in buṭār above) in these words could in fact be a noun: *bua- + *wet-ru- > *bua- + wat-ur > buāṭar. [For -w- in intervocalic position see e.g. altó-áltar ‘forty’ (B 16) vs L altówáltar : altdwáltar : altḍáltar ‘forty’ (L 3).]

An alternative connection can be sought with IE *pōu- : *pau- : *pū-25 ‘small, little; young (of animals)’, esp. with the t-formant: Olnd putrá ‘son, child’, Lat putus, putillus ‘boy’, pullus ‘young, young (of animals)’, Osc puklo- ‘child’, Balt-Sl *putá ‘bird’, Lith putštis ‘young animal, young bird’ (IEW 842–3). Phonetically a correlation is possible with Old Indian, although putrá in T 8265 everywhere in Indo-Aryan only has the meaning of ‘son’, and the semantics of the Burushaski word is more closely related to the Latin, Slavic and Baltic developments (yet note however Skt pōta-1 ‘young of animal or plant’, (e.g., H poti ‘young female of any animal’) (T 8399). The Burushaski word is not found in the surrounding Indo-Aryan or Iranian languages and has a retroflex -t.

Both changes (and alternations): w- > b- and p- > b- are well attested in Burushaski (see Čašule 2003b: 33, 40; and [9] and [14] in this paper).

2.2.3.2. She-goat

[18][C] Bur Ys hālkit, Hz Ng ělgit ‘she-goat over one year old, which has not yet borne young’ (L 38) (B 138).

It can be derived from IE *el-, *ol- ‘red, brown (in names of trees and animals)’ (IEW 302–4), in Wat 23, also without a laryngeal, or rather *h₁elu- ‘dull red’ (in IE also: ‘yellow; white; reddish, golden’

25 From the same IE stem, i.e. from *pau-kos ‘little, few; small’ (M-A 200), Bur has phūk ‘a small speck of any substance’, phūko adj. ‘small, tiny’ (B 334).
with the ŋ-formant (Wat 23: *ol-ki) (in Gottlieb 14: ‘deer-like [horned] animal’), as in OHG ēlho ‘elk’, ON elgr, OEng eolh ‘elk’, Eng elk < Grmc *algiz ‘elk’, Russ losh, Cz, Pl los ‘stag’, Pam rus ‘wild mountain sheep’ [borrowed into Bur rus ‘Pamir wild sheep, Ovis Poli’ possibly through Wakhi (B 366)], also with an -n- suffix, e.g., OCS jelen ‘hart’, Lith ėlnis ‘deer’, OIr elit < *elŋ-ti-s ‘deer’, Arm ēn ‘hart’, OPrus alne ‘animal’, and from *l-on-bho-s > ON, Goth lamb ‘sheep’ (IEW 302–4). Some newer etymological interpretations (Adams 1985, apud M-A 177–178) reject the link of the animal name with the colour term, and propose a form *h₁lŘís or *h₁lřís ‘elk’.

The derivation of the Burushaski word would be < IE *h₁el-R-ti-. It is highly significant that we have the basic colour form in Bur hal ‘fox; yellowish, reddish’ (B 186) (a < e in unstressed position, consider the pl. form haljo) (see Čašule 2003b: 46–7). The Hunza and Nager form maintains the e-vocalism after the loss of the laryngeal, and it appears that in Yasin we have a form influenced either by the colour term or by some semantic analogy to Bur halk ‘to give birth’, halkiš ‘womb’, Ys Bur halkiš ‘pregnant cow’ (B 188). This correlation is suggested by Berger (2008: 74), but that in itself does not appear to explain the Hunza and Nager forms, nor the suffix -it, or the change in the position of the stress. The vacillation in assigning a laryngeal to this Indo-European stem is perhaps reflected in the dual dialectal outcomes in Burushaski, with and without a laryngeal.

Another very tentative possibility is to analyse Hz, Ng ēlḥit as the primary form, i.e., as a compound word: *el- + *ḥit, where the second component in turn could be correlated with IE *gh(aj)d-o- (Watkins 28, who following Pokorny stipulates that this stem could be possibly related [by metathesis] to *digh- [for which see [14]], Lat haedus, Goth gaitis ‘goat’, OEng gāt ‘she-goat’, Eng goat [in IEW 409: *ghai-d-o ‘goat’, who also notes Alb qith ‘goat’, MIr cit ‘sheep’, ON kid ‘young of animals’], Gottlieb (1931: 16).

A conflation of two forms cannot be ruled out.

Burushaski also has [19][P] haldén ‘male goat (full grown, and in the case of domestic goats, castrated); a male ibex’ (Wil 63). The first component would very likely be related to the examples above and the second could be the Burushaski word děn ‘year; age’ (B 118) as in jimděn ‘any time in the future’ (B 227). The semantics would be
'over one year' ~ 'of age'. [Another etymological interpretation could be < *h₁el-t-en, by metathesis < IE *h₁elŋ-ti- (ʔ)]

2.2.4. Young of animals

The following term is used to refer to young animals in general, including lambs, kids, calves, kittens, chickens etc.

[20] [C] Bur ʿsk, NH Bur ʿsko, Ys -is 'young (of animals), young one; also jokingly for children', e.g., (belise) ǟltä iskumuts bie 'there are two young ones (lambs)', or buš isk 'kitten' < buš 'cat' (L 316) (B 380). It has the force of a diminutive.

There is a direct connection with IE *-i-sk ‘formant of adjectives and noun diminutives’ (Illič-Svityč 1976 I: 204, who indicates that the -i- is probably from the i-stems, a continuant from many old root stems), in Wat (36) IE *-isko, compound adj. suffix, forming relative adjectives, denoting origin in Slavic, found also in Germanic and Thracian (for the latter, see Illyes 1988: 212). We have discussed the Burushaski adj. suffix -ki, -ski (e.g., Burıkštaki < Burıkştın (B 491) and the related -ko-, -kus, -kuš with identical functions in Čašule 2003b: 71–2, also Bur -um adj. and participial suffix < IE -enko, -ŋko- (composite suffix with -ko as the second component [Wat 36]). This example shows a full systematic derivational correspondence.

2.2.5. Other shepherd vocabulary

2.2.5.1. Shepherd

[21] [VP] huyélтарč ‘shepherd, herdsman’ (L 211) (LYs 131). B (209) also notes huyélтарч ‘pasture for sheep and goats’ and analyses it as [1] huyēs + ?, the second component also in Hz Ng buáltarč, Ys biétarč ‘cowherd’ (B 60). For the second component, there doesn’t seem to be a veritable internal derivation, although Lorimer (questioned by Berger) points to the verb Hz Ng ʿ-ltir- ‘show, point out, indicate’, Ys also ʿltar-, in DC Ys also Ys ʿltar- (B 269), which is semantically imprecise, and phonologically we would have expected a form *huyéltirč. The ending -č is a suffix, as in darúč ‘hunter’ < darú ‘hunting’ (B 116) or marúč ‘gold washer’ < marú ‘washing river sand’ (B 282), duráč messenger’ (B 125). Berger
(2008: 144) derives through internal reconstruction the suffix -c < -es (also -is). It most likely corresponds to IE nominal suffix -es in animate stems with possessive semantics, as in IE *kerh₁-es- ‘grain’ > *kerh₁-ēs- ‘(the one) associated with or possessing grain’ (Fortson 2004: 112). Note perhaps further -es, -is in [14] Bur bélis (L also bělis), Ys běles ‘ewe (which has had young)’ (L 75) (B 48) if from IE *pelh₂- ‘bear young’ (found in the West Central IE area): Alb pjell ‘give birth to, produce’, pelē ‘mare’, Gk pōlos ‘foal’, Arm ul ‘kid, young of deer or gazelle’, Eng foal (M-A2 192), thus: ‘bear young’ > ‘the bearer of young’. The same analysis can be applied to [15] Bur mečnis ‘female sheep over one year old which has not had young’ (L 264) (B 285), which we derived from the IE stem *mend-, *mond- ‘to suck, to feed young animals’ (IEW 729).

We find a very important close parallel with the Thracian element trair, tral, trā in personal names like e.g. Trai-bithus, Traii-centus, Aulou-tralis, Auro-tra, Aulo-tra, Muca-tra for which Tomaschek (1980 [1893–1894] II, 2:38f, 102) proposes the meaning ‘shepherd, herdsman’, from an IE stem *trā- ‘to feed, hold, protect, shield, shelter, look after, care for’ (not found as such in Pokorny) and points to Sl trajati ‘durare’ and Skt Agni-trā as possibilities for comparison.

The stem may be linked derivationally with [24] Bur tark ‘byre, hut for animals’ (L 346) (B 422), with a basic shared semantics of ‘holding, sheltering, enclosing’ and can be segmented as *huyēs+tra(l)+-c ‘one who shelters, looks after the sheep’.

Another etymological possibility within Indo-European is the stem **terh₂- oldest form with variant [metathesized] form *treh₂-, colored to *trah₂-, contracted to *trā-, also zero-grade form *tṛ(ə)- ‘to cross over, pass through, overcome’ [for derivatives in Bur from this stem that follow typically non-Indo-Iranian forms see Čašule 2003b: 66–7]: e.g. Skt tirati, tārati ‘he crosses over’, trāyati ‘protects, shelters’ (widespread in IA but without the pastoral element), Irn *thrāya- ‘to protect’, Lat intrāre ‘enter’, Hitt tarhzi ‘defeats’ (Wat 91) (M-A2 395), Av tar(v)- ‘to overcome’, H tārnā ‘save’ (G 629–30). It is the current preferred etymology also for Sl trajati ‘endure, last; wait’ mentioned by Tomaschek above, which some (G 634–5) link further with PSI *ērjati ‘drive’, e.g. Mcd tēr ‘to drive (out) (esp. cattle, small and big); to force, make; to chase, pursue’, Srb terati, Croat tjerati (without Baltic parallels).
Overall, the correlation and connection with Thracian and with 
[23] tark ‘byre for animals’ with a Paleobalkanic etymology, appears 
to be the most promising one.

[22] [P] Bur dák¹ ‘driving animals’, dák étas ‘drive an animal; 
follow up tracks’, dák ótas hír ‘shepherd’ (lit. “driving animals 
man”) (L 108) (Will 46). Berger (B 128) unjustifiably gives it together 
with dák² ‘to hammer; smithery; sharpening tools’, dakálo 
‘blacksmith’ (which only and specifically means ‘to hammer’), 
whereas Lorimer and Willson correctly give the two forms as 
homonyms. Zoller (220) gives for Indus Kohistani dag ghō ‘to drive 
(cattle)’. First word no separate meaning, with parallels only in WPah, 
where it means ‘head of cattle’, and points to T 5524a, which has the 
meaning ‘cattle’, and not ‘driving animals’.

Can be compared with IE *dei-, *deig- ‘to show, pronounce 
solemnly, also in derivatives referring to the directing of words or 
objects’, with semantics in IE of ‘throw’, ‘justice, right’, ‘show, 
pasture’, ‘rule, cannon, measure’ (Wat 14) (M-A 158), e.g., Gk 
dikéin ‘to throw’, deiknunai ‘to show’, OInd díś- ‘direction’, ON 
tegr ‘strip of land’, OHG zeiga ‘directions’, Av daësa ‘direction, 
region’, OEng fík ~ fik ‘meadow, pasture’, and from the variant 
*deig- OEng tæcan ‘show, teach’, tā(c)en ‘sign, mark’, Goth taikns 
‘sign’, Lat index ‘indicator, forefinger’ (< ‘pointer’) (M-A 159).

In Bur ei > a and R > k (see Čašule 2003b: 31–2, 38). The 
Burushaski semantics of ‘to drive’ = ‘direct (show) the animals, to 
follow up tracks (signs)’ fits well within the IE developments.

2.2.5.2. Byre for animals, goat house, sheep house

[23] [C] Bur tark ‘byre, hut for animals’, also tarkáñ ‘stable’, Ng 
‘stable for horses’ (Berger notes that the latter word has an older pl. 
ending -áñ of tark) (B 422) (L 346).

Can be compared conclusively with a Balkano-Carpathian word 
believed to originate from one of the ancient Balkan languages 
(Thracian?): Alb thark, cark ‘byre for animals’, Rum ţarc, Arum 
ţarku ‘winter byre for sheep; fence around stack’ (Neroznak 1978: 207). It is also found in Pl Slk Ukr Hung Mold (Bernštějn 
correlates the Albanian word internally with Alb thur ‘embrace; fence
in’ and further with Lith tvarkà ‘Haltung, Fassung, Ordnung’, tvorà ‘fence, hedge, borderwall’ < Lith tvérti ‘embrace, enclose, fence in’, ultimately from IE *tuer-2, *tur- *túera- ‘to grab, enclose’ (IEW 1101). In Albanian, *tú- > th-[ð], the intermediate stage, according to Rasmussen (649) being [ts] (“with which one may compare the development of *tu > s(s) in Greek”), and who goes on to say that “the details and the antiquity of the Albanian word are proved by its appearance as a loanword in Rumanian (…) and Modern Greek (…)”.

There are numerous examples of a t : th alternation in Burushaski, e.g. Hz áltar : Ng Hz álthar (B 16), Ys tišan : Hz Ng tišan (B 440), tanii : thanii (B 419), Ys tarkôñ : Hz Ng tharkoñ (B 438), tar dél- : thar dél- (B 421), etc. – we have noted seventeen such examples in Berger and a further sixteen examples in Lorimer.

In light of this, [23a][VP] Bur tháark (in Sh thráako) ‘walled enclosure (constructed around a shrine, or a saint’s grave)’ (L 337) (B 435) may well belong here, esp. as Lorimer gives it as thàrk in the dictionary entry, but as tárk in the example. We have already noted (Čašule 2004: 84) the possibility that the Phrygian word terkos ‘burial plot’ from the inscriptions (Orel 1997: 461, without etymology) could be correlated with the Burushaski words.

In Burushaski we would have tark < *tugar-k(a) < *tuer-k(a) (note the variation ge : ua, as in [15]), and (h)áark < *tgerh2-ka (with the lengthening caused by the lost laryngeal). For the suffix *-k(a) see [8] and [9].

The exact match with a word belonging to the most ancient Balkan layer of shepherd vocabulary is very important.

[24][P] Bur Ys bač ‘goat house, sheep house’ (LYs 398).

Even though the correlation with Burushaski involves a slight semantic change, this is an interesting correspondence.

2.2.5.3. Grazing ground

[25] [VP] Bur rún ‘alpine pasture, open grazing ground on hills, grassland’ (also in Sh) (L 305: Hz ruún) (B 366) (Will 100).

Can be compared with IE *reusa- ‘to open, space’, suffixed zero-grade form *rū-mo-: OEng, OHG rūm ‘space’, OProv run ‘ship’s hold; space’ suffixed form *reua(ə)-es: Lat rūs ‘open land, the country [countryside, open fields]’ (Wat 71), in M-A 534: IE *réuh-es (< *reuhs - ‘be open’) and further OIr rōi ‘field, open land’, Av ravauh- ‘space’, Goth rūms ‘open space’, TochAB ru- ‘(be) open’, OCSl rů́nuš ‘level’. Not found in Indo-Aryan.

We note also Bur rat ‘smooth, flat, level’ (also in Sh) (L 302) (B 364, who gives Balti rat, rad with the same meaning). In Burushaski, if it is not a Tibetan word (and not found in RYTEDD) it could have developed from the stem above < *reu-to, with the semantics as in the Slavic example.

In Bur rún, Hz ruún < *rūn- (with the length preserved in Hz) + Bur adj. suffix -un (B I: 5.1) which we have derived from the IE composite adj. suffix *-nka- with the meaning of ‘open’ (adj.) at the core of the Burushaski word, i.e. a substantivised adjective = ‘the open’. It could on the other hand, be a plural form with the pl. ending -n as e.g. badá sg. ‘sole; step, pace’ : pl. badá́n (for examples and discussion, see Berger 2008: 11.4), leaving the stem as ru-, subsequently with a double plural form (on the Bur double plural, see B I: 3.32), i.e., ruúnáné.

Another indication that the stem could be ru- is possibly the Ng pl. ruáńé vs Hz ruáńé (Berger 2008: 57, who apud Anderson 1997: 1035, gives it however as an example of dissimilation of nasals). Only two more examples of a dissimilation n-n > n-n, are cited by Berger, and in both cases we cannot exclude the possibility that the -n in the singular is in origin from an adjectival or a plural ending.

[26] [VP] Bur ter ‘summer grazing ground up in the mountains, mountain pasture (with some cultivation and farming)’ [note the specific semantic correspondence with the Rumanian and Latin examples below] [in contrast to [25] rún]; ‘in plant names “wild”’ (L
350) (B 425). Note further the Burushaski toponym **Báltar** ‘village near Chalt above the Baltar glacier’ which Berger analyses as ? + **ter** ‘ground’ (B 489).

There is a possibility of comparison with Lat **terra** ‘earth, land, country, the earth’, derived by some etymologists from IE *ter- ‘spread out, extend’ and further to OIr, Wels, Bret **tir** ‘land, country’ (Tucker 241) (E-M 687–8). The Rumanian **țarlnă** ‘field under cultivation’ (not found in Albanian) was considered by Russu (apud Illyes 232) to be a Balkan substratal remnant, although Neroznak (1978: 204) proposes a Latin origin for it, i.e. from Lat **terrena** ‘plough field, arable land’. Another etymological analysis links tentatively the Latin word to IE *ters- ‘dry’: Lat **torrere** ‘dry up, parch’, Gk **tërsmoai** ‘dry up’, Skt **t’fś-** ‘be thirsty’, Eng **thirst** (Buck 17) (G 639) (Wat 91).

In regard to the possible wider Indo-European links in support of the ‘spread, extend’ proposal we can point to Bur **tirkăn** ‘(of spilled oil, wound) to spread’ (B 427), **tarău manas** ‘to spill over, overflow (of things on a big scale)” (L 338). In connection with the ‘dry’ hypothesis note Bur **țir mană** ‘to dry (of woman’s hair)’ (B 446).

2.2.5.4. Wool

See also the discussion under [9] Ys **bëské**, also bišké, Hz Ng bišké ‘hair (of animals), fur; wool’ and the first component in bišképaliks ‘wool-carrying, wool-giving animal’ (L 84) (B 56) and perhaps also bišqár adj. ‘raw, rough wool’ (B 56–57).

[27][VP] Bur **lūuyo** ‘a tuft of wool; impurity in the wool; small balls of scraped wool, lint’ (B 271).

It can be correlated with IE *u̞l̞h₂neh₂- ‘wool’ (with different enlargements also ‘hair; ear of corn; forest’) distributed in nine different groups, e.g., Lat **lana**, Gk **lēnos**, Skt **u̞r̥n̥a-**, OEng **wul(l)**, NE **wool**, NWels **gwan**, Lith **vilna**, Mcd **volna**, Hitt **hulana-**, Av **varanā-**, all ‘wool’ (M-A 177–8) (Wat 98). The Indo-European word is considered a likely derivation from IE *u̞el₂- ‘to tear, pull’ (Wat 98) (IEW 1144), *u̞elh₂- (M-A 150) e.g. Lat **vellere** ‘to tear, pull’, **villus** ‘shaggy hair, wool’, with derivatives in IE meaning ‘wound’, ‘blood’, ‘fight’, ‘captured’, ‘die’, etc.

It is very indicative that Burushaski has the verb waalas ‘to get lost, to go astray; to be separated from work or family; to die’ (Will
(possibly < *u-baálas (< IE *uelh₂- : e > aa caused by the laryngeal). Burushaski also has bél-, Ys wél- ‘to put s-thing on, to don, to wear’ (B 47) (L 77, 385) (Will 22) that could be traced to IE *gel- ‘tear’ with a semantic development as in PSl *ob-belkti ‘to put on clothes’ < *velkti ‘to pull, drag’ (related stem: IEW 1144–5) (for the semantics also note Lith drapanos ‘clothes’, Skt drápi ‘cloak, mantle’ < IE *der- ‘tear’ (Wat 16). The Burushaski meaning of ‘scraped wool’ might reveal the underlying meaning of ‘tear’.

We would derive Bur lúyọ < *uļun-yọ, with a suffix –yọ- which we can correlate with the IE relational adj. suffix *-yo-, also ‘of or belonging to’ (Wat 103), also *-iűo- (Fortson 120–121) (and retained in huyọ ‘wool-bearing animal, sheep’ (L 208) (B 209), and further mámọ ‘endearing term for ‘mother’ < máma, mámo ‘mother’ (B 277), sọoọ ‘a type of vegetable’ < Shina sọo (B 397), karọoọ ‘with curved horns’ (B 242) (see under [10]), etc. In Burushaski we have evidence of a change ny > y: e.g. Ys nyam : Hz Ng uyám ‘sweet, tasty’ (B 460), Ys nya : Hz Ng ya ‘bear’ (B 467) etc. For the loss of the initial u- in front of -l note e.g., the doublet Ng uláń- ‘can, to be able’ : Ys lán- ‘same’ (B 454) or Hz Ng -ulgis ‘nest’ : Ys álkiš ‘same’ (B 454). u- is a positional variant of w- /_l or C e.g., Ys wélji : Hz Ng -úlji ‘dream’ (B 454). A metathesis ul > lu with lengthening cannot be ruled out.

Perhaps related to lúyọ, from the same Indo-European stem above, is Bur íliliš ‘ear of corn, just as it appears’ (B 211), with *i- from the pronominal prefix, and with the alternation í:u/₁ : *u-li-yo-kis > *i-ul-yo-kis > íliliš (for the change yo > i in the inlaut see in [5]). The semantic development is the same as in other Indo-European derivatives, e.g. Corn gwel ‘grass’, Lith váltis ‘panicle of oats, of corn’, OPrus wolit ‘ear of corn’, Srb vlat ‘same’, Ukr volóft ‘panicle’ (IEW 1139) which strengthens the etymological analysis.

[28] [VP] Bur şe ‘wool’ (L 326) (B 393).

A comparison is possible with developments from IE *kes- ‘to comb, scratch, itch’: Mír číř, Hitt kiss- ~ kisā(ī)- ‘to comb’, kíske/a ‘comb’, Luw kış ‘to comb’, Lith kasi ‘braid’, OCS kosa ‘braid, hair’, čėsat ‘to scratch, to comb’, and specifically in regard to wool, as Gk ksainō ‘scraper, comb [hair or wool], full [cloth]’, or flax, as in OEng heordan [pl] ‘hards [of flax], tow’ (M-A2 233), with differing semantics in OInd kacchú ‘itching’ or kṣurá ‘knife, thorny plant’ [ >
The Burushaski form would be from an extended zero-grade: ks- + -e(s) - directly correlatable semantically with Gk ksásmá ‘crumpled wool’ (< *ks-en-), also kséō ‘grate, scratch’ (*ks-es-ō) (IEW 586) as well as with the Slavic and Baltic examples above.

It is important that Burushaski has also Ys hesk, Hz Ng hisk ‘comb, loom, wrist’ (L 204) (B 200) (for the suffix -k(a) see in [8]), which would be a derivation from the e-grade. There are a small number of examples in Burushaski where h < k (see the note and references in [10]), which would explain the h- instead of the prevalent k-. It could be the result of dissimilation.

The following two words belong more to textiles vocabulary, but they are also indirectly related to the pastoral terminology:

[C] philám ‘woollen homespun cloth’ (L 290) (B 329) (Will 94).


In Burushaski we would have a derivation of philám < IE *pilm-an- < IE neut. *pēl-mn-, as in Ys hasúman ‘star’ < háas ‘glowing ambers’, hánuman ‘alone’ < han ‘one’ + -man, or hōm ‘sign, omen’ (short form of the suffix) < IE *(h2)oh3- ‘believe’ > Lat ōmen ‘sign, omen’ (for a discussion of the continuants of the IE suffix -*men in Burushaski, see Čašule 2003b: 48-9, 58-9). Furthermore, IE p- > Bur ph- (for examples, see Čašule 2003b: 34). Perhaps the second component of the compound noun Ng gurpáltīn, gulpáltīn, Hz, Ys gupáltīn ‘trousers (man’s or woman’s)’ (L 173,4) (B 161) can be correlated here, linked by Berger (2008: 146) to -phált- Hz Ng trs. ‘break, break up, hoe, dig a hole, burst in the air’ (B 322) (see below).
From the underlying IE verb *(s)p(h)el- ‘to split [break in two], cut off, tear off; board’ (IEW 985–7) we have: Olnd phálátí ‘breaks, cuts in two’ (T 9057), paṭati ‘blows up’, Ksh phalun ‘to break in two’ (and with wide distribution in Indo-Aryan, yet apparently not found in Shina or Khowar) and further Gk sphállo ‘trip, knock over, separate, hesitate’ etc. For the correlation with Burushaski especially important is the version of this stem with the -t- extension, i.e. < *(s)pel-t- : Grm spalten ‘to split, to cleave, to chop’, Ir alta(i)n, Cymr Ellyn, Bret aotenn all: ‘razor’, PSI *poltiti- ‘to cleave’, e.g. Mcd poluti ‘break in two’ (G 493).

Directly correlatable to this stem is the Burushaski verb -palt- ‘to cause to break’, -phált- Hz Ng trs. ‘break, to break up, to hoe, to dig a hole, to burst in the air’ (L 153, also iphalt- ‘break a hole in the wall’) (B 322).

The extended -t- stem, the absence of a retroflex, the alternation p : ph in the Burushaski words and the fact that the verb is not found in the neighbouring Indo-Aryan languages argue strongly against a loanword from Indo-Aryan or Old Indian and reinforce the etymology of this pastoral and textiles term.

[30] [C] Bur gay ‘thread in a warp, i.e. for weaving’ (B 175).

It shows a remarkable correspondence with IE *g”heiə-, *g”hí- ‘sinew, thread’ (IEW 489), in M-A (569): *g”hih(-eha)-, e.g., Lith gija ‘thread (in a warp), skein, hank (of yarn)’, Lett dzija ‘thread’, OSl žila ‘sinew’, Wels giau (pl.) ‘nerves, sinew’, Lat flum ‘thread’, Arm ʝil ‘cord’ etc. (not found in Indic or Iranian). The Bur word is semantically precise and specific (identical to Lithuanian), whereas phonetically it could be derived < *g”heiə- (ei) > a with the laryngeal > y or y in intervocalic position, as e.g., in Bur giy- ‘go into, enter’ (B 155) < IE *ghēh₁- ‘let go; go’ (Wat 28), or in Bur -yánis ‘so much’ (B 468) explained by B < han ‘one’ (< IE *h₁oi-no-s ‘one’) (see Čašule 2009).

2.2.5.5. Flute
[31][P] Bur puréelo ‘a (type of) flute’ and pururúro ‘flute player’ (B 318). Possibly related in the sense ‘flute made of reeds’, we note Bur phurúu and phurúuy ‘reeds, rushes’ (L 294) (B 337, who does not make that correlation). For the alternation ₁: r , see e.g. phulgúuy : phurkúuy ‘feather’ (B 335) which we have derived from (as a
compound word) < IE *pleus- ‘feather’ + *gour ‘body hair, lock of hair’ (Caşule 2003b: 23). It is possible that the original Burushaski form was *p(h)uleero.

There is a very interesting parallel with a Balkan substratal word: Rum flúier ‘flute’, Arum flúer, fuléru, Alb flojére, floére, floér ‘flute’, a typical pastoral term also found in Ukr flojara, Pl fujara, Slk fujara, Srb and Croat frula, Hung furulya, MGk flogéra, all: ‘flute’. There is no firm accepted etymology for this word (Brâncuș 1983: 75), although some have derived it from Gk floiáron ‘bark of tree’, and others from Lat fláre ‘to blow’, or as an imitative word.

The semantic correspondence with Burushaski is direct and the metathesis of the liquids would be as in the Serbian, Croatian and Hungarian examples, unless Burushaski displays the original form. Bur does not have [f] – in loanwords it is substituted with ph or p and there is undoubtedly some kind of assimilation in pururúro.

3. Discussion and conclusions

Shepherd vocabulary is generally a conservative layer in the lexicon of a language. This can be seen throughout the Indo-European languages and especially very clearly in the case of the Balkan languages. If we look at Poghirc’s (1969: 327–356) identification of possible old, substratal words (remnants from the ancient Balkan languages) in Albanian and Rumanian (and their number goes from more widely accepted 122, according to Poghirc, to 210 according to Russu [apud Du Nay 1977: 60–1]), ~30% of them belong to shepherd words in sensu stricto, by far the largest compact semantic group, but if related words are added, as pointed out by Du Nay (1977: 71) the number increases to 58% of all the words originating from the substratum.

We find the same pattern in Burushaski. It is highly significant that only in reference to ‘sheep’ and ‘goats’ we have identified 20 autochthonous Burushaski words of non-Indo-Iranian Indo-European origin. If we add to this number the 9 loanwords from Indo-Aryan and Persian (some of which could have coincided or merged with the Burushaski autochthonous vocabulary), we end up with 29 words of Indo-European provenience in this very restricted semantic field. This
amounts to 90% of this vocabulary in Burushaski. In addition we have a further 11 words of closely related shepherd terms (and upon closer inspection this number may be larger), which brings the total to 40.


In a few instances, in widely represented stems in Indo-European, we have specific semantic and derivational developments that align Burushaski with some of the IE groups, e.g. in [26] Bur ter ‘summer grazing ground up in the mountains, mountain pasture (with some cultivation and farming)’, where we find direct semantic correspondence with the Lat, Rum, Wels and Bret derivatives from a widespread IE stem, or under one interpretation with the Paleobalkanic substratum.

In one case: [5] Bur súmpal, súmalkiš, súmphalikiš, súmpalikiš ‘young female kid or lamb’, we find a specific development within Burushaski connected to a stem found in the West Central IE area, whereby Burushaski has several derivations from it.

The most interesting findings are in the direct and specific semantic, derivational and phonological correlations of Burushaski with the ancient Balkan shepherd vocabulary.

Firstly we have a correspondence with an ancient European cultural word, well attested and identified as substratal in the Balkans, with a specific semantic shift to ‘female sheep’ both in Rumanian and Burushaski (in the rest of Europe it means ‘foal’, ‘bullock’, ‘young
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We have further Paleobalkanic correlations in: [4] Bur bat ‘goatskin, sheepskin; animal hide; a shape, a form, a likeness’, which has an attestation in IE that assures antiquity and considered by some a possible loanword from a non-IE source, or from Thracian. Especially strong and convincing is the specific correlation of [8] Bur Ys běskářet, Hz Ng běskářat ‘wether, ram (over two years old, castrated)’ < [9] Ys bišké, also bišké, Hz Ng bišké ‘hair (of animals), fur’ with a [Thradian?, Ancient Macedonian?] substratum borrowing in Albanian and Rumanian, with Burushaski also having the probable underlying verb. Very strong, direct and specific is the link between [23] Bur tark ‘byre, hut for animals’ and Albanian and Rumanian substratal words (+Baltic) and also [23a] tháark ‘walled enclosure (constructed around a shrine)’ (+Phrygian). There is another Burushaski-Paleobalkanic (and wider Carpathian) correlation in the case of [24] Bur Ys bač ‘goat house, sheep house’ (LYs 398) and [31] Bur puréelo ‘a (type of) flute’ also with Carpathian distribution). In one instance, in the second component of [21] huyéltaré ‘shepherd, herdsman’ we find a precise correlation with Thradian. Note also the discussion under [6] du ‘kid’.26 Especially important is the fact that the two attested Phrygian glosses for ‘goat’: aseis and attagos, correspond closely with Bur ačás ‘sheep, goat’ [2] and dákár Ng ‘ram’ [13]. This means that in 10 [if we include the Phrygian correspondences: 12], out of 31 (~30%) of the Indo-European-Burushaski correspondences we can trace a direct correlation with the Paleobalkanic developments, with very specific and identical semantics and systematic phonological correspondences. Considering

26 There is another possible Paleobalkanic parallel with the Thradian word ebros ‘buck’ < IE *h₁eperos ‘boar’ (M-A2 142) (Gottlieb 10–11), e.g. OSI vepři, Lett vepris ‘boar’ (with an unexplained v-, derived by some etymologists (G 666) < *wep- ‘throw, sprinkle (semen)’ (< *h₁-wep-?), Lat aper, OEng efor, OHG ebur, epur, all ‘boar’. A correlation is possible with Bur běpay, also běpay ‘yak’ (Tib gyeg), Sh bêpo (B 48) (retr. y possibly < *r-jô). It is very important that Bur also has biphér n. ‘breed, engendering’ (B 53–4) which fits directly with the semantics of ‘begetting’, and provides evidence for a final -r- in Bur běpay.
the scarcity of Paleobalkanic attestations, this is an outstanding number.

Of course this does not mean that these words are necessarily Thracian\(^{27}\) in origin both in the Balkans or in Burushaski, even if their Paleobalkanic correlation appears to be indisputable. Except for \([21]\) and even then with a conjecture, the substratal words are conveniently hypothesised to be Thracian principally because of the ancient spread of Thracian. We have so little preserved from the Paleobalkanic languages that some of these words could be of Phrygian or Ancient Macedonian origin or from languages almost not attested at all, like Paeonian or mostly onomastically attested languages like Illyrian, or maybe even shared by several of these languages.

The presence in Burushaski of a number of shared alternations and changes like betacism \(w>b\) (as in Ancient Macedonian, Phrygian, see e.g., Georgiev 1981: 129) or \(w:b\) (Thracian) see \([9]\)), or voicing of \(k\)- (as in variant Latin and Greek transliterations of Thracian onomastics, see Çaşule 1998: 67–9) or voicing of \(p\)- (as perhaps in Thracian, see \([4]\)),\(^{28}\) the alternation \(m:b\)\(^{29}\) (as in Thracian names – see e.g. \([14]\)) makes this link even more viable.

In this regard, these findings fit in with our earlier general analysis of other Paleobalkanic-Burushaski correspondences in Çaşule (1998: 13-18, 21-36).\(^{30}\) Furthermore, as we have shown in detail ( Çaşule

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27 Yet interestingly, Lorimer (L 438) notes *Traqhanată*i (B 438) “a dynasty whose headquarters were at Gilgit. The name is derived from *Trakhan* (…)” who was its ruler. It is very tempting to seek a historical correlation with the Thracian ethnonym, i.e. with *Thrâkes* or *Thrâkion ëtnos* (Katičić 131–132) although it is more likely that this is a more recent regional development.

28 Consider in regard to Thracian consonantism the discussion and examples in Katičić (1976: 143): “The only safe conclusion is that Greek and Latin writers met with difficulties when rendering Thracian stops in their familiar alphabet. This has been explained (…) as a full-fledged consonant shift, (…) as the orthographic representation of stops somewhat different from the Greek one and similar to the articulation of stops in Albanian”.

29 “A most characteristic Thracian feature is the alternation of \(b\) and \(m\).” (Katičić 1976: 144).

30 There are also a few words of non-Slavic origin in the highly Balkanised Macedonian language, at the centre of the Balkan Sprachbund, possibly substratal, that find a direct parallel with Burushaski, e.g. Mcd *bara* ‘look for,
there are other specific semantic fields like ritual, myth, burial and onomastics where we find close and numerous correlations of Burushaski with Phrygian, originally a Paleobalkanic language. In our analysis of names of body parts of Indo-European origin in Burushaski (Čašule 2003a) we also found possible connections with Phrygian in five of these words.

Our analysis of the shepherd vocabulary of Burushaski reveals a language where almost all the numerous words for ‘sheep’ and ‘goats’, together with a large number of related terms can be derived from Indo-European, belonging to a community that from antiquity would have been of a markedly pastoral character. It is highly significant that the specific phonological correspondences manifested in this material are consistent with the other >550 lexical correspondences we have analysed in our previous work. Together with the large number of systematic grammatical correspondences with IE, crucial in asserting a genetic relationship, this is further proof of the Indo-European (outside of Indic and Iranian) origin of Burushaski. The strong and precise links in the Bur shepherd vocabulary with the ancient Balkan substratal lexis advance the

search for; seek; demand; look after’ (RMJ I: 22) : Bur bare-, bare- ‘look, look at; look for, search for; look after, look about’ (B 40), possibly < IE *wer-, ‘perceive, watch out for’ (Wat 99) or more tentatively Med vrne ‘to rain’; a unique Macedonian verb most probably of substratal provenience [for the etymology see Čašule 1998b]: Bur war, man- ‘rain heavily (B 464) < IE *we-r- ‘water, liquid’ or IE *wers- ‘to rain, drip’ (Wat 100) etc. (For other examples, see Čašule 2001: 125–8.)

In the wider semantic field of ‘domestic animals’ note the direct correspondence between the Phrygian gloss māθ ‘Phrygian call to cattle’ (Neroznak 1978: 150), interpreted as an interjection (prominent and specific enough to be recorded by the ancient lexicographers) and the Burushaski interjection ma’hā ‘come! – a call to a horse’ (B 275). Interjections of this type are generally culture-specific, even if they have an expressive component (Bashir p.c.).

Note also in reference to ‘horse’, the discussion (Čašule 2004: 78–79) of the link between the Bur Ys word kabdt ‘white horse’ (T-M 33), and Bur kabulēk ‘roof-posts’ and Phrygian kubela, Thracian *kabīla ‘horse’, OSI kobyla ‘mare’ > kobylūka ‘pole for carrying loads’, kobylica ‘scaffolding, supporting beams etc.’, Lat caballus ‘horse, gelding, work horse’, words which Buck (168) considers of Anatolian or Balkan ethnic origin.
hypothesis that Burushaski is the descendant of one of the ancient Balkan languages, very probably Phrygian or a language related to it.

Abbreviations of languages and dialects

Abbreviations of sources cited

Cunn = Cunnigham, A. 1854.
G-I = Gamkrelidze, T.V. and Ivanov, V.V. 1984.
Hay = Hayward, G. W. 1871.
IEW = Pokorny, Julius. 1959.
L = Lorimer, David L.R. 1938.
LI = Lorimer, David L.R. 1935.
Leit = Leitner, G.W. 1889.
RYTEDD = Ranjung Yeshe Tibetan-English Dharma Dictionary (online).

References


