

## On the etymological stratification of borrowed Indo-Iranian vocabulary in Burushaski

In this paper, I attempt to refine the generally accepted view on the origin of Indo-Iranian loan vocabulary in Burushaski. Having analyzed extensive lexical material, I come to the conclusion that a very large part of this vocabulary was borrowed before the split of the Proto-Burushaski state, and cannot be derived from any of the traditionally identified donor languages (i.e. Shina, Khowar, Urdu, Persian and East Iranian Pamir languages). It is also demonstrated that this “pan-Burushaski” segment of the Indo-Iranian lexical stratum is etymologically heterogeneous, with some Dardic lect as one of the possible sources.

*Keywords:* Burushaski language; Indo-Iranian languages; Dardic languages; language contact; lexical borrowing; etymology.

### Introduction

Burushaski has for centuries been and still is in close contact with a number of Indo-European languages belonging to the Indo-Iranian subfamily. The Burushaski-speaking area is almost completely surrounded by the speaking areas of several Dardic and East Iranian lects.<sup>1</sup> In addition, certain Indo-Iranian languages were and are used by the Burusho people for official and literary purposes. The natural corollary of this situation is the presence in the Burushaski vocabulary of numerous Indo-Iranian loanwords borrowed from different sources. Among these sources the following are identified by most scholars: Classical Persian (the official and literary language of the region in the Middle Ages and later till the 20<sup>th</sup> century), Urdu (the official and literary language of the region nowadays), East Iranian languages (Wakhi and Ishkashimi), Dardic languages (Shina and Khowar). Khowar and Shina are believed to have exerted the strongest influence on the Burushaski lexicon.

Although the sources of Aryan loans are often reduced to the aforementioned four, there are good reasons to consider the above list incomplete. As early as the 1940s, Georg Morgenstierne demonstrated the possible existence of certain Sanskrit lexical elements in Burushaski (Morgenstierne 1945).<sup>2</sup> The presence of such elements seems to be quite natural if we bear in mind that Buddhism was most probably spread in the area under study in pre-Islamic

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<sup>1</sup> It is only in the southeast where the immediate neighbor of Burushaski is not an Aryan language. Here the Burushaski-speaking area borders on the Tibetan-speaking one.

<sup>2</sup> The presence of early Middle Indian loanwords is also possible. They may include, e.g. the Burushaski names of the days of the week: *adit* ‘Sunday’ (cf. OIA *ādiya-* ‘sun’, *ādiyavāra-* ‘Sunday’), *caṇḍúra* ‘Monday’ (cf. OIA *candravāra-* id.), *añāro* ‘Tuesday’ (cf. OIA *aṅgāraka-* ‘the planet Mars’, Sindhi *añāro* ‘Tuesday’), *bódo* ‘Wednesday’ (cf. OIA *budha-* ‘the planet Mercury’, *baudha-*, *budhavāra-* ‘Wednesday’), *biréspat* ‘Thursday’ (cf. OIA *bṛhaspati-* ‘name of a deity, the planet Jupiter’, *bṛhaspativāra-* ‘Thursday’), *śúkuro* ‘Friday’ (cf. OIA *śukra-* ‘the planet Venus’, *śukravāra-* Friday’), *śimsér* ‘Saturday’ (cf. OIA *śanaiścara-* ‘the planet Saturn’, *śanaiścara-vāra-* ‘Saturday’). The Indo-Aryan origin of these words being obvious, they represent a more innovative stage of phonological development as compared to Old Indian. At the same time, their phonology contains some archaic traits (e.g. the retention of intervocalic consonants) lost in later Middle and New Indo-Aryan. However, it cannot be ruled out that the cited lexemes are very early, phonologically adapted borrowings from Sanskrit.

times.<sup>3</sup> In the cited article Morgenstierne also adduces two examples of Aryan borrowings with very archaic phonology:

- 1) *-faltas* ‘to break’ (Morgenstierne 1945: 93), cf. OIA *sphaṭati* ‘bursts’, *sphāṭayati* ‘causes to split’, Old High German *spaltan*, German *spalten* ‘to split’ < PIE \*(s)p(h)el-t- (LIV: 577; Pokorny 1959: 985–987);
- 2) *phaltočij* ‘puttees’ (Morgenstierne 1945: 93), cf. OIA *paṭṭa-* ‘cloth, bandage’, Hindi *paṭṭī* ‘strip of cloth, ribbon, puttee’ (> English *puttee*), Old Church Slavonic *platvno* ‘cloth, canvas, fabric’, Old High German *faltan*, Old English *fealdan* ‘to fold’ < PIE \*pel-t-o- (Pokorny 1959: 803, 804).

The most conspicuous historical-phonological feature of the above two loans is the consonant cluster *lt* corresponding to a retroflex stop (*ḷ* or *ḷḷ*) in Old Indian. This kind of correspondence suggests that in the source-language, clusters of the type “*l* + dental” were not affected by Fortunatov’s law, and this language could, therefore, hardly have been Indo-Aryan or modern Dardic.<sup>4</sup> An Iranian source also seems to be unlikely. Apart from the fact that the usual Iranian reflex of PIE \**l* in clusters is *r*, no cognates of the aforementioned words are attested in the Iranian languages that are believed to have influenced Burushaski. All of this indicates that etymological stratification of Aryan loans is still far from clear and needs further research.

In order to throw some light on this issue I have conducted a study of Aryan vocabulary contained in Hermann Berger’s Burushaski-German dictionary (Berger 1998b). Its main advantage is being the biggest bilingual dictionary of Burushaski and a European language published so far: it includes lexical material representing all the local varieties. Before proceeding to the discussion of particular etymologies, I find it necessary to offer some general considerations.

Probably the most significant fact revealed in the course of working with Berger’s dictionary is that a large part, if not the majority of Aryan loanwords are common for all the dialects of Burushaski. The importance of this point can hardly be overstated if one bears in mind the linguistic geography and ethnic history of the region in question. The Burushaski language consists of two divergent lects spoken in the Gilgit-Baltistan administrative territory of Northern Pakistan.<sup>5</sup> The western lect, called Werchikwar, is the vernacular of the Yasin valley, and the eastern one, sometimes termed “Burushaski proper”, predominates in the basin of the Hunza river. The latter dialect is in turn subdivided into two subdialects — the Hunza and the Nager (Nagar, Nagir)<sup>6</sup>. The Yasin and Hunza valleys do not directly adjoin each other, being separated by the long valley of Gilgit, nowadays populated by speakers of the Shina language.

<sup>3</sup> This fact is indicated by rock-paintings and inscriptions found in the region (Dani 2001). A corpus of Buddhist manuscripts in Sanskrit was discovered in the valley of Gilgit located adjacent to the Burushaski-speaking area.

<sup>4</sup> Although first discovered in Old Indo-Aryan, Fortunatov’s law seems to work also in modern Dardic and Nuristani languages. Cf., e.g. Dardic and Nuristani lexical items belonging to the two above-mentioned etyma: Kashmiri *phaṭun* ‘to burst’, Shina (Drasi dialect) *photoṇo* ‘to split’, Indus Kohistani *phaṭāṭ* ‘to copulate with’ (< \**sphāṭyate*, Zoller 2005: 288), Kati *pṭe-*, Kamviri *pṭa-* ‘flake off; break off (outer layer); explode in small bursts (as wood in a fire)’, Pashai *paṭā* ‘strip of skin’, Khowar *peṭek* ‘scarf, dupatta’, Kalasha *pāṭi* ‘scarf’, Indus Kohistani *paṭh* ‘the piece of leather of a sling into which the stone is placed; the strap of a gun; a plaster; strip, stripe’, *paṭī* ‘a long strip of cloth that is wrapped around the legs as traditional trousers’, *paṭū* ‘a type of cloth from Chitral and Gilgit’ (Zoller 2005: 269), Kashmiri *paṭh* ‘long strip of cloth from loom’, Kamviri *pāṭū* ‘turban’, Prasun *puṭi*, *puṭī* ‘Rand (eines Gewandes)’ (Buddruss, Degener 2015: 754).

<sup>5</sup> A certain number of Burushaski speakers, reportedly a few hundred, live in the Jammu and Kashmir union territory of India. They are descendants of migrants from the North who settled in the Vale of Kashmir a hundred-plus years ago (Munshi 2019).

<sup>6</sup> Hunza and Nager are two districts (formerly, princely states) situated on the right and left bank of the Hunza river respectively.

Since the easiest, if not the only practicable route connecting Hunza and Yasin runs through the Gilgit valley, there are strong reasons to consider Shina a wedge that had once split the more or less unified Burushaski-speaking area. In other words, before the arrival of Shina speakers the language of Gilgit was most probably Burushaski<sup>7</sup>, and Shina migration must have been a crucial factor in the divergence of the Yasin and Hunza-Nager dialects. Based on glottochronological calculations, the beginning of the latter process should be dated to the 10<sup>th</sup> century A.D., and it seems fair to say that the influx of Shina loans into the eastern (Hunza-Nager) dialect of Burushaski must have started on or shortly after this date. This influx appears to result not only from close economic and political ties between the Gilgit and Hunza valleys, but, probably to a greater extent, from mass immigration of Shina speakers to Hunza and Nager<sup>8</sup>.

The Yasin valley most likely remained untouched by this ethnic change. However, it fell under the domination of Khowar-speaking political elite originating from neighboring Chitral. This caused massive spread of Burushaski-Khowar bilingualism<sup>9</sup> and consequently extensive borrowing of Khowar vocabulary into the Yasin dialect. The presence of a very significant Khowar lexical stratum in Werchikwar sharply distinguishes it from Burushaski proper, influenced by Shina. Thus, the sources of modern Dardic loanwords are different for the two main varieties of Burushaski, and Aryan lexical items shared by both of them must, for the most part, have been borrowed from some source-language(s) other than Shina and Khowar. The adoption of such items must have begun before the separation of the Yasin and Hunza-Nager dialects, i.e. more than a millennium ago. Perhaps the two abovementioned phonologically archaic Aryan loans discovered by Morgenstierne belong to this early layer.

It goes without saying that the “pan-Burushaski” Aryan loan vocabulary needs thorough analysis. Such an analysis may not only throw significant light on the history of language contact in the Upper Indus region, but also yield some results useful for the comparative study of Aryan languages. In Berger’s dictionary Indo-Iranian borrowings common for all Burushaski varieties are relatively easily recognizable. Though Berger’s main goal was to comprehensively document lexical data on the Hunza-Nager dialect<sup>10</sup>, Yasin cognates are quoted for all Hunza-Nager words possessing them. This principle is applied to loans too. For many of them, the hypothetical source of borrowing is also specified, referring to R.L. Turner’s “Comparative dictionary of the Indo-Aryan languages” (Turner 1966)<sup>11</sup>. In our etymological list that follows, each of Berger’s comparisons is reproduced and commented upon<sup>12</sup>. To select mate-

<sup>7</sup> This view seems to be generally accepted by scholars. See e.g. Lorimer 1935; 1937; Jettmar 1975. It is supported, inter alia, by the fact that the Gilgit dialect shows the deepest Burushaski influence in comparison with other Shina varieties. This influence is not confined to the lexicon, but manifests itself on other levels of language structure. For details see Lorimer 1937.

<sup>8</sup> Unlike in Gilgit, this migration did not bring about a total language shift. However, in Hunza and Nager it seems to have given rise to an ethnic group called Shin, whose members are or were the speakers of the Shina language. In Nager the share of this group in the whole population is higher than in Hunza, and it is no wonder that the Nager dialect of Burushaski shows the strongest Shina influence in the vocabulary.

<sup>9</sup> In the 1<sup>st</sup> half of the 20<sup>th</sup> century about one third of Yasin’s population was bilingual in Burushaski and Khowar (Lorimer 1935).

<sup>10</sup> The dictionary comprises the last volume of Berger’s three-volume description of the Hunza-Nager dialect “*Die Burushaski-Sprache von Hunza und Nager*”.

<sup>11</sup> Berger’s etymological references for tentative Aryan loanwords usually have the form “T+ entry number in Turner’s dictionary”, T being the abbreviation of “Turner”.

<sup>12</sup> If no etymological hypothesis is ascribed to Berger, this means that the etymology in question belongs to the present author.

rial for the list, I used three main criteria: (i) presence of a particular Burushaski word both in the Yasin and Hunza-Nager dialect; (ii) presence of a plausible Aryan etymology; (iii) absence of inherited exact cognates in Shina and/or Khowar. The latter criterion seems to be important because the presence of cognates in both Dardic languages implies the possibility of parallel borrowing from Khowar into Werchikwar and from Shina into Burushaski proper. In a few cases, it seems reasonable to classify a loanword as belonging to the early Aryan vocabulary even though it does not meet some of the above criteria. All such cases are analyzed and discussed separately. Etymologies on the list are numbered and arranged in alphabetical order. Burushaski words are quoted in Berger's transcription<sup>13</sup>; for each of them the German translation from the dictionary is specified.

### A list of probable early Aryan loans in Burushaski.

1. Hunza-Nager *a-loó-*, Yasin *a-*, *ai-* 'Negation beim Verbum' (Berger 1998b: 9). According to Berger, borrowed from Indo-Aryan (= OIA, Av. *a-* 'not, un-, non-'). Since the Burushaski verbal negative prefix turned out to have a Sino-Caucasian etymology with cognates in North Caucasian and Sino-Tibetan (Starostin 2005), Berger's view should be regarded highly questionable. However, it seems likely that in certain words outside the verbal system, chiefly in nouns and adjectives with privative and negative meaning (cf., e.g. *abás* 'Schwierigkeit, Unglück' (Berger 1998b: 11), *aboóm* 'unglücklich, unselig, Unglück bringend' (Berger 1998b: 11), *agúuyó* 'roh, unreif, geschmacklos; wenig oder gar nicht gedüngt; wenig fruchtbar' (Berger 1998b: 13), *akás* 'Unglück, Pech, was man notgedrungen, wohl oder übel, machen muß' (Berger 1998b: 14)), the initial *a-* may indeed reflect the Aryan negative and privative prefix. Some of such adjectives and nouns have antonyms with the initial element *su-* and the meaning "possessing something" or "possessing something of good quality". This element is probably also of Aryan origin (see 88).

2. Hunza-Nager *abááso*, feminine *abáási* 'von getrübttem Blick, schwachsichtig; in der Nacht schlecht sehend' (Berger 1998b: 11). Berger compares this word with Shina *awááso* 'gelähmt, verkrüppelt'. It seems, however, more probable that the Burushaski adjective reflects some derivative of the Indo-Iranian root *\*(s)paś-* 'to see, look, watch' (cf. OIA *paśyati* 'sees, looks', *spaśa-* 'a spy, a guard', Av. *spasiieiti* 'glimpses, spies') with the negative prefix *\*a-*, the prototype in the donor language being perhaps *\*apaśya-* 'not seeing, unseeing'. The cited Shina word is, due to semantic difference, unlikely to belong here.

3. Hunza-Nager, Yasin *astám* 'gerichtliche Entscheidung, Urteil; Rechtsfall, Prozeß' (Berger 1998b: 22). Berger's etymology: T 1517 (< *\*āsthāman-* 'meeting place'). Cf. also Shina *astóom* 'judgement'. This etymology, first advanced by Morgenstierne (1945: 92), seems somewhat far-fetched. The most frequent meaning of the word *astám* in Burushaski is evidently 'decision (e.g. judicial), judgement' rather than 'place of trial, courthouse'. More plausible appears to be the connection with PII *\*stambh-/stabh-* 'to be or make firm, support' (> OIA *stambhatē* 'supports', *stabhita-* 'fixed', Av. *staβra-*, Khotanese *staura-* 'firm', Classical Persian *sitabr* 'thick'). Cf. the semantic development of a derivative from this root in some New Indo-Aryan lan-

<sup>13</sup> Voiceless dental unaspirated and aspirated affricates are transcribed as *č* and *ch* respectively, their palatal and cerebral counterparts as *ć*, *čh* and *ç*, *čh* respectively; *ś* stands for the palatal sibilant, *ṣ* for the cerebral one, *ḡ* for the voiced velar fricative, *ɣ* for the voiced retroflex sibilant with simultaneous dorso-palatal narrowing ("ein stimmhafter retrofleher Sibilant mit gleichzeitiger palatal-dorsaler Engebildung" (Berger 1998a: 22)).

guages: Sindhi *ṭhahraṇu* ‘to stop, stand, be decided’, Punjabi *ṭhahirnā* ‘to stop, be settled, be proved’, Hindi *ṭhaharnā* ‘to stop, decide’ < \**stabhira-* ‘fixed, firm’ (Turner 1966: 789). The immediate source of the Burushaski word probably reflects a formation with the preverb *ā* (\**āstambha-*).

4. Hunza-Nager, Yasin *aštán* ‘Pferdeknecht’ (Berger 1998b: 23). Cf. Shina *aštóon* id. Following Morgenstierne, Berger compares the Burushaski word with OIA *aśvasthāna-* ‘horse-stable’ and proposes for it the prototype \**aśvasthānin-*<sup>14</sup> (Morgenstierne 1945: 92; Berger 1998b: 23). Morgenstierne’s etymology implies an unexplained loss of the suffix *-in-* in the donor language. Phonologically less problematic seems to be the derivation from \**aśvatāna-* (cf. OIA *tanati, tānayati* ‘helps, assists, aids’). The meaning of this hypothetical protoform may be reconstructed as ‘horse-helper, the one who takes care of (lit. helps) horses’.

5. Hunza-Nager, Yasin *ayás* ‘Himmel’ (Berger 1998b: 24). Berger’s etymology: T 1009 (= OIA *ākāśya-* ‘of the sky’). Equally plausible seems to be Turner’s comparison with OIA *ākāśa-* ‘sky’ (T 1008). The Old Indian word has a probable cognate in Shina (*hagaái*) where the development of the earlier intervocalic *-k-* is remarkably different from that in the source-language of the Burushaski lexeme.

6. Hunza *báago* ‘Anteil; Ersatz’, Nager *báago* ‘anstelle von; von seiten’ (Berger 1998b: 25), Yasin *bágo* ‘share’ (Lorimer 1938: 398). Berger’s etymology: T 9434 (= OIA *bhāgya-* ‘fortune, lot’). The Aryan prototype \**bhāga-* (> OIA *bhāga-*, Av. *bāga-* ‘share, portion, fraction’, Old Persian \**bāga-* ‘allotment, plot’, Classical Persian *bāγ* ‘garden’) also cannot be ruled out. Reflexes of PII \**bhāgīa-* are represented in some Dardic languages (cf. Shina *báago, bagóo*, Kashmiri *bōg* ‘share’) but not in Khowar, and Yasin *bágo* can, therefore, hardly be a Khowar loan.

7. Hunza-Nager *badá*, Yasin *bayá* ‘Schritt, Sohle (von Stiefel, Fuß)’ (Berger 1998b: 29). Morgenstierne compared the Burushaski word with OIA *pada-* ‘foot, footprint, step’ (Morgenstierne 1935). Initial *b* must be the result of sonorization of an initial tenuis<sup>15</sup>.

8. Hunza-Nager *balá* ‘Vorteil, nützlich’ (Berger 1998b: 32). Berger’s etymology: T 9408 (= OIA *bhalla-* ‘auspicious’, Sindhi *bhalo*, Punjabi, Hindi *bhalā* ‘good’). The etymology seems plausible. Similar semantic development took place in Iranian: Classical Persian *bahr* ‘profit, benefit’ < Proto-Iranian \**badra-* ‘lucky, happy’<sup>16</sup> (Rastorgueva & Edelman 2003: 44). The word has no attested cognates in Shina and Khowar, which suggests that it may belong to the early Aryan loan vocabulary.

9. Hunza-Nager *balándo* ‘stark, mächtig’ (Berger 1998b: 33). Berger’s etymology: T 9166 (= OIA *balavant-* ‘strong’). The source of this word in the donor language probably reflects the secondary thematized base \**balayanta-*. Note the voicing of the historical voiceless stop after the nasal. Since no cognates of the Burushaski lexeme are attested in Shina and Khowar, it may be tentatively classified as an early Aryan loanword.

10. Hunza, Yasin *balán* ‘Waagebalken; Querbalken oder Leine zum Wascheaufhängen’, Nager *balón* ‘Leiste, die den Trichter zur Mühle stützt; Leiste um den Webstuhl; Geländer’ (Berger 1998b: 33).

<sup>14</sup> The supposed meaning is perhaps ‘the one in the horse-stable’.

<sup>15</sup> On voicing of initial voiceless consonants in Burushaski see Lorimer 1935 and Morgenstierne 1945.

<sup>16</sup> Etymologically related to OIA *bhadra-* ‘lucky, happy’, *bhalla-* ‘auspicious’ (< \**bhadla-*).

Berger's etymology: T 11879 (= OIA *vilagna-* 'hanging to'). Cf. also Shina *balón, balvñ* 'stick to hang clothes on, perch (for a bird)'.

11. Hunza-Nager, Yasin *balk* 'Brett; Bord (auf dem man den Brotteig bereitlegt); (bei der Sitar) Fläche über dem Bauch' (Berger 1998b: 34–35). The word may be compared with OIA *phalaka-* 'board, lath, shield' (< \**sphalaka-*), Proto-Iranian \**spara-* 'shield' (> Middle Persian *spar*, Classical Persian *sipar* id.), Kashmiri *phal* 'strip of wood'. Burushaski *b* < \**ph* due to initial sonorization.

12. Hunza-Nager *bandeés -t-* 'fesseln, binden, festhalten', Yasin *bandés et-* 'befehlen' (Berger 1998b: 36). Contamination of two different roots seems to have taken place. With the meaning 'to bind, to tie' the Burushaski word can hardly be separated from OIA *bandhati*, Av. *bandaiiiti* 'binds, ties'. With the meaning 'to order, command', however, it may reflect or be semantically influenced by some cognate of Kalasha *bandek* 'to teach; to announce so as to inaugurate, to order or command' (Trail & Cooper 1999: 27). The Kalasha verb is, most probably, etymologically connected with OIA *vandatē* 'praises, worships', Av. *vand-*, Khotanese *van-*, Parthian *wynd-* 'to praise, honor, worship' (Kogan 2019). Shina *bandeés* 'Befehl' (Berger 1998b: 36) may be a Burushaski loanword.

13. Hunza-Nager, Yasin *bas-* '(Schnee, Tau) fallen, sich setzen, sich niederlassen' (Berger 1998b: 41). Cf. OIA *vasati* 'dwells, stays', Av. *vanhaiti* 'dwells', Hindi *basnā* 'to dwell', Nepali *basnu* 'to remain, inhabit, sit', Gujarati *vasvū*, Marathi *vasñē* 'to settle' Kashmiri *wasun* 'to descend, to land from a boat'. A Sino-Caucasian etymology has been proposed for this root. Along with *ōs-* 'to put down, place' it is derived from Proto-Sino-Caucasian \**ǝsÁ* 'to be, stay' (Starostin 2005). However, the exact relationship between the two Burushaski reflexes of this prototype is unclear. It seems quite probable, or at least not excluded, that the real continuant of the cited Sino-Caucasian protoform is *ōs-*, while *bas-* is an Aryan loan<sup>17</sup>.

14. Hunza-Nager, Yasin *bašá* 'Turban' (Berger 1998b: 43). Berger compares the word with OIA *praśna-* 'Korb, Turban', Shina *pašoó* 'turban'. The meaning 'turban' seems to be extremely rare for the Old Indian lexeme. In addition, the phonological development in Shina is irregular, which makes Berger's comparison very doubtful. Cf., however, OIA *pispr̥ṣati* 'will cause to be adorned', *sparśayatē* 'adorns?' (Turner 1966: 798), the loss of initial *s* and the change \**rś* > *ṣ* being regular for Shina. Since the word is "pan-Burushaski", borrowing from Shina is rather unlikely.

15. Hunza-Nager *baščár*, Yasin *bačár* 'Guckloch, Schießscharte' (Berger 1998b: 43). Berger's etymology: T 11647 (= OIA *vikṣāra-* 'a lucky hit on the target'). Cf. also Khowar *bačár* 'loophole'. The "pan-Burushaski" nature of the word makes borrowing from Khowar improbable.

16. Hunza-Nager, Yasin *bat* 'flacher Stein, Steinplatte, Schieferplatte' (Berger 1998b: 43). Berger's etymology: T 11348 (< \**varta-* 'round stone'). Cf. Ashkun, Waigali *wāṭ*, Kati *woṭ*, Tirahi *baṭ* 'stone', Gawar-Bati *wāṭ* 'stone, millstone'; Kalasha *bat*, Kho. *bort*, Bshk. *baṭ*, Tor. *bāṭ*, Maiyā *bhāt*, Palula *bāṭ*; Shina *bāṭ* 'stone', Kashmiri *wāṭh* 'round stone', Romani *barr*, Lahnda, Punjabi *vaṭṭā* 'stone', Khotanese *ūdāra-* 'crystal', Wakhi *wārt* 'marble, millstone, stone', Kurdish *bar(d)* 'stone'.

<sup>17</sup> It should be noted that the initial *b-* of *bas-* remains unexplained if we accept the above Sino-Caucasian etymology of this root.

17. Hunza *béric*, Nager *béđić*, Yasin *béđec* ‘Angehöriger der Schmiede- und Musikerkaste in der Gilgit Agency, Zigeuner, “Dom”, Schmied, Musiker’ (Berger 1998b: 48). The Burushaski word evidently has cognates in Northwestern Tibetan dialects: Balti *bekar* ‘court singer and dancer who improvises poems and songs’ (Sprigg 2002: 28), Ladakhi *beda* ‘member of the caste that used to be itinerant musicians’, *bemo* f. (Norman 2010: 640–641). All the cited forms seem to be derivatives of the common root *be-*. This root is likely to be borrowed from Indo-Iranian and may reflect PII *\*wād(i)ya-* ‘music, musical instrument’ (cf. OIA *vādya-* ‘musical instrument, music’, *vādyakara-* ‘musician’, *vādayati* ‘plays a musical instrument’, Ossetic *wadynz* ‘flute, panpipe’). For details see Kogan 2019.

18. Hunza-Nager *biik*, Yasin *behék* ‘Weide (Baum)’ (Berger 1998b: 51). Berger’s etymology: T 12097 (= OIA *vēta-* ‘cane, reed’). Cf. also Pashai *wēu*, Shina *běu*, Classical Persian *bēd* ‘willow’ < PII *\*uaita-*, *\*uaiti-*. The Burushaski word seems to reflect the prototype *\*uaitaka-* or *\*uaitikā-*.

19. Hunza-Nager *bijaáto*, *bijiito*, Yasin *bijiju* ‘fürchterlich, schrecklich aussehend’ (Berger 1998b: 52). Berger’s etymology: T 9515 (= OIA *bhīyatē* ‘fears’). Cf. also Shina *bižoiķi* ‘to fear’, *bižātū* (Bailley 1924: 133), *bijaáto* (Berger 1998b: 52) ‘timid’. In Werchikwar progressive assimilation seems to have taken place (*\*bijitu* > *bijiju*). The word is probably “pan-Burushaski”, so Shina could hardly have been its immediate source.

20. Hunza-Nager, Yasin *čápi* ‘Pinzette, Zange’ (Berger 1998b: 69). Cf. Khowar *čápi* id. The latter word may well be a borrowing because initial dental affricates are rare in the inherited vocabulary of Khowar. Probably, the Burushaski lexeme reflects some derivative of PII *\*kap-/čap-* ‘to catch, snatch, pick, pinch’ (> Shina *čap-*, Indus Kohistani *cap-*, Gawar-Bati *cep-* ‘to bite’, Pashai *čip-* ‘to bite off’, Kashmiri *cop* ‘a bite’, Munji *čab-* ‘to pinch’, Wakhi *čap-* ‘to pick, pluck’)<sup>18</sup>. For semantic development cf. Russian *kusachki* (кусачки) ‘nippers, tongs, cutting pliers’ < *kusat* (куса́ть) ‘to bite’.

21. Hunza-Nager, Yasin *čar* ‘Wachtposten, Wächter, pl. Wachleute, Wache’ (Berger 1998b: 69). Berger’s etymology: T 4683 (= OIA *cara-* ‘spy’). Cf. also Shina *car* ‘watchman, guard’, Kashmiri *car* ‘spy’. Since earlier palatal affricates are not dentalized in Shina, the Shina word is no doubt borrowed.

22. Hunza-Nager *čar -t-* ‘zerreißen, zerspalten, aufschneiden, herunterreißen’, *čir man*<sup>19</sup> ‘(Kleider) in Stücke gehen, zerreißen’ (Berger 1998b: 69). Berger’s etymology: T 4844 (< *\*cīrayati* ‘splits’). Cf. also OIA *cīra-* ‘strip (of bark or cloth)’, Hindi, Punjabi *cīrnā* ‘to tear, split’, Shina *cīroiki* ‘to split (wood) lengthwise’. The Shina word must be borrowed because of the irregular initial dental affricate (see 21).

23. Hunza-Nager *čháriš*, Yasin *čáreš* ‘Teil des Türrahmens, d.i. Türpfosten oder Schwelle; pl. Türrahmen, Rahmen (des Webstuhls, der Drechselmaschine)’ (Berger 1998b: 75). Berger’s etymology: T 1880 (< *\*utsāra-* ‘going out’). Berger also compares Khowar *carēni* ‘doorframe’. Because of

<sup>18</sup> For more Iranian reflexes of this root see (Rastorgueva & Edelman 2003: 221–226). If this etymology is correct, the Khowar word must definitely be considered a loan because in Khowar the old palatal affricate *\*č* is preserved unchanged, and no dentalization takes place.

<sup>19</sup> Hunza-Nager *-t-*, Yasin *et-* ‘to do’ and Hunza-Nager, Yasin *man-* ‘to become’ very often function as light verbs in Burushaski complex predicates.

phonological differences the Khowar word can hardly be the immediate source of the Burushaski forms.

24. Hunza-Nager *čar -t-* ‘(Flüssigkeit, Pulver) gießen’ (Berger 1998b: 85). Cf. OIA *kṣarati, kṣalati* ‘flows, trickles’, *kṣārayati* ‘causes to flow’, *kṣālayati* ‘washes’, Proto-Iranian *\*xšar-* ‘to flow’ (> Persian *šārīdan* ‘to trickle’, (*āb*)*šār* ‘waterfall’, Ossetic *äxsärdzän* ‘waterfall’ (< *\*xšar-čana-*), Middle Persian *Xšart* ‘the river Jaxartes’ (Livshits 2003), Kashmiri *čhalun* ‘to wash’, *čhar* ‘a sprinkle of water etc. from the fingers’, Gawar-Bati *čhār* ‘rapids in a stream’, Palula, Indus Kohistani *čhār*, Bashkarik, Kalasha *učhār*, Shina *čhar* ‘waterfall’, Khowar *čəreik (čh?)* ‘to pour, shed, drop, sprinkle, scatter (seed), make fall’. The Khowar word can hardly be the source of the Burushaski one because the latter is attested in the Hunza-Nager dialect.

25. Hunza-Nager *čarí, čirí* ‘Heimchen, Grille’ (Berger 1998b: 86, 89). Berger’s etymology: T 4845 (= OIA, Pali *cārī* ‘cricket’). Cf. also Khowar *čari* ‘bedbug’. The word was also borrowed into Northwestern Tibetan dialects: Balti *ceri*, Ladakhi *cari* ‘bedbug’ (Sprigg 2002: 41; Norman 2010: 266). Since it is attested in the Hunza-Nager dialect, Khowar can hardly be its immediate source.

26. Hunza-Nager, Yasin *čódo* ‘Verhöhnung, Stichelei, Beschimpfung’ (Berger 1998b: 90). Berger’s etymology: T 4926-29 (= OIA *cōda-* ‘goad’, *cōdayati* ‘impels; importunes, asks’). Cf. also Pali *cōdaka-* ‘one who rebukes’, Classical Persian *čust* ‘agile’. Shina *čódo* ‘sarcasm, scoffing’ should be considered a loanword due to the irregular retention of intervocalic *d*.

27. Hunza-Nager *čhağéni* ‘schwarze Ziege’ (Berger 1998b: 95). Berger’s etymology: T 4961 (< *\*chagana-* ‘goat’). Cf. OIA *chaga-*, *chagala-* ‘goat’, Khowar *čhani*, Pashai *čhanik* id.

28. Hunza-Nager *čhe*, Yasin *čéi* ‘Einschnitt (mit der Axt)’ (Berger 1998b: 99). Berger’s etymology: T 5064 (= OIA *chēda-* ‘section, piece; incision’). Cf. also Kalasha *čhēla* ‘piece’, Shina *čhe* ‘cross cut with an axe’, Sindhi *chehu* ‘incision, end’, Hindi *cheu* ‘cut, stroke, mark, chip’.

29. Hunza-Nager *čhiš*, Yasin *číšç, čirç* ‘Leiter, schraggelegter Stamm mit eingehauenen Fußkerben; Bahre’ (Berger 1998b: 100). Berger’s etymology: T 12704 (< *\*śritrā-* ‘ladder’). Cf. also OIA *śriti-* ‘entrance’, Ashkun *istrī* ‘ladder made of a single log’, Waigali *čī, čír*, Kati *čik*, Prasun *čik*, Kalasha *šīt*, Shina *čhič*, Punjabi, Hindi *śīrhī*, Marathi *śid(h)ī*, Pashto *šəl*, Yazghulami *šad* ‘ladder’. For the Burushaski forms the prototypes *\*śriṣṭra-* and *\*śriṣṭa-* cannot be ruled out.

30. Hunza-Nager *čháci, čháci* ‘Rang, Würde’ (Berger 1998b: 106). Berger’s etymology: T 3649 (= OIA *kṣatriya-* ‘ruling; one of the ruling order’). If the etymology is correct, the variant *čháci* must have developed due to affricate dissimilation. No Shina or Khowar cognates are attested which gives reason to believe that the Burushaski word may be an early Aryan loan.

31. Hunza *č(h)ar*, Yasin *čar, čir* ‘(Kindersprache und vulgär) Stuhlgang, Pissen, Durchfall’, Nager *čhar* ‘Wasserfall (größerer)’ (Berger 1998b: 106). Berger’s etymology: T 3662. Etymologically identical to 24.

32. Hunza-Nager *čhur* ‘Messer (größeres, z.B. zum Schachten)’, Yasin *čur* ‘Keil, der an der Steinschleuder die zwei Sehnen auseinanderspannt’ (Berger 1998b: 107). Berger’s etymology: T 3727 (= OIA *kṣura-* ‘razor’, *kṣurī-* ‘knife, dagger’). Cf. also Kalasha *čhūrī* ‘knife’, Bashkarik *čhur*, Torwali *čhū*, Palula *čhūr* ‘dagger, knife’, Shina *čūr* ‘small knife’, Lahnda, Punjabi, Hindi *churī*, Ne-



pali *churi*, Romani *čhuri* ‘knife’, Awadhi *chūrā*, Nepali *churo* ‘razor’ < PII \**kšura-* < PII \**ksuro-* (Mayrhofer 1992: 435–436).

33. Hunza-Nager, Yasin *damán* ‘Herr, Besitzer, Gott; adj. wirklich, eigen (bei Verwandten, im Gegensatz zu Stief-)’ (Berger 1998b: 112). Berger’s etymology: T 6180 (= OIA *damūnas-* ‘householder, master’). Cf. also Shina *dabóon, dabūn* ‘owner, master, landlord, God’. The change *ū > a* in the stressed syllable is not noted anywhere else in the Indo-Iranian loan vocabulary of Burushaski. Therefore, Berger’s comparison seems questionable. Much more plausible is the etymology advanced by Morgenstierne who compared the Burushaski lexeme with OIA *damana-* ‘taming, subduing’ (Morgenstierne 1945: 92). It is also possible that the source of the word in question reflected the prototype \**damāna-*, i.e. the old medial participle of the root \**dam-* ‘to tame, subdue’<sup>20</sup>. Such a hypothesis can satisfactorily explain the long vowel in the Shina cognate.

34. Hunza-Nager, Yasin *dar* ‘Angst, Zittern’ (Berger 1998b: 114). Berger proposes two alternative etymologies: T 6186 (= OIA *dara-* ‘fear’) or < Balti *darba*, Tib. ‘*dar ba* ‘to tremble, shiver’. Borrowing from Tibetan appears much less probable for linguogeographical reasons: Werchikwar where the word in question is attested, being geographically distant from the Tibetan-speaking area, is not and seems to have never been in close contact with Tibetan dialects.

35. Hunza, Nager, Yasin *darí* ‘Fenster’ (Berger 1998b: 115). Berger’s etymology: T 6651 (< \**dvara-* ‘door’). Cf. OIA *dvār-* ‘door, gate’, Av. *duuar-* ‘gate’, Pashai *darī*, Gawar-Bati *derī*, Kalasha *durík*, Palula *darúri*, Torwali *deræn*, Indus Kohistani *darī*, Shina *daríi*, Kashmiri *dār*, Punjabi, Gujarati *bārī* ‘window’.

36. Hunza, Yasin *darógo*, Nager *daráguy* ‘Stock, Stecken, Stab’ (Berger 1998b: 115). Berger’s etymology: T 6298 (= OIA *dāru-* ‘piece of wood’). Cf. also Old Persian *dāruv*, Av. *dāuru-* ‘piece of wood’, Pashai *dār* ‘firewood’, Shumashti, Gawar-Bati *dār* ‘wood, tree’, Khowar *dar* ‘timber, firewood, gallows’, Kashmiri *dār* ‘log’, Kumauni, Nepali, Hindi *dār* ‘timber’, Persian *dār* ‘gallows’, Shughni *δōrg* ‘wood, log’. The intervocalic *ǵ* of the Burushaski words may reflect the old \*-*k-*. If so, the Aryan prototype should be reconstructed as \**dāruka-*.

37. Hunza-Nager, Yasin *dašmán* ‘islamischer Priester’ (Berger 1998b: 116). According to Berger, either T 6117 (= OIA *dakṣamāna-* ‘being able’) or < Urdu *dānišmand*. Cf. also Khowar *dašmán* ‘priest’. Since the Urdu word, as well as its immediate source in Classical Persian (*dānišmand*), does not mean ‘priest’, the usual meaning being ‘a learned, wise, sagacious person’, the former of Berger’s comparisons seems more plausible. The presence of the lexeme under study in the Hunza-Nager dialect suggests that its Khowar cognate may have been borrowed from Burushaski but hardly vice versa.

38. Hunza *datágar*, Yasin *datágar, tatágar* ‘Fieber’, Nager *datágar* ‘Malaria’ (Berger 1998b: 116). Berger’s etymology: T 5679, 5680 (= OIA *tapta-* ‘heated, hot’, \**taptakārī* ‘act of making hot’). Cf. also Av. *ḥam.tapta-* ‘heated, hot’, Tirahi *tata*, Bashkarik *tatt*, Palula *tāto*, Shina *tātu*, Kashmiri *tot*, Sindhi *tato*, Lahnda, Punjabi *tattā*, Kumauni, Nepali *tāto*, Romani *tato*, Khotanese *tauda-*, Persian *taft*, Pashto *tōd* ‘hot, warm’, Ossetic *tævd* ‘hot; heat’. The initial *d* in Burushaski must have developed due to the sonorization of earlier *t*.

<sup>20</sup> With the same root cf. also OIA *damayati* ‘subdues’, Ossetic *domin* ‘to tame’ < PIE \**demh<sub>2</sub>-* (LIV: 116).

39. Hunza-Nager *diščík*, Yasin *gišték, gištík, kištiki, dištík* ‘sonnengetrockneter Ziegel’ (Berger 1998b: 121). Berger hypothetically compares the Burushaski words with OIA *ištākā* ‘brick’. Although this comparison suggests itself, it leaves unexplained the irregular initial consonants of both the Hunza-Nager and Yasin forms. As a provisional hypothesis, it may be assumed that the forms starting with dorsals developed due to the influence of Persian *χīšt* ‘brick’, *k* conveying the Persian uvular fricative, and *g* resulting from the sonorization of earlier *k*, whereas the initial *d* of the other two forms arose by analogy with some derivative of the PII *\*daijh-* ‘to plaster, anoint; shape, build’ (> OIA *dēhī-* ‘dam, surrounding wall’, Old Persian *didā-* ‘rampart, fortress’).

40. Hunza-Nager *dumáš* ‘Wolke (*Staub, Rauch, Wasser*)’ (Berger 1998b: 125). As a tentative etymology, Berger suggests T 6849 (= OIA *dhūma-* ‘smoke’) and also quotes Shina *dumáš* ‘Rauch’. The word, although it evidently contains an Aryan root, seems to have a Burushaski derivational suffix and, therefore, to have been borrowed from Burushaski into Shina, not vice versa. It is remarkable in this connection that the common word for ‘smoke’ in Shina is *dūm* and not *dumáš*.

41. Hunza-Nager *gáčír*, Yasin *gacér* ‘Geier’ (Berger 1998b: 141). Berger’s etymology: T 4231, 4233 (= OIA *gr̥dhya-* ‘greedy’, *gr̥dhra-* ‘desiring greedily; vulture’). Cf. also Pali *gijjha-* ‘greedy; vulture’, Waigali, Dameli *grīč*, Gawar-Bati *līnci, līnci*, Palula *grhīnjo*, Shina *gireč*, Sindhi *gijha*, Lahnda *girijh* ‘kite’, Kashmiri *grad*, Punjabi *giddh*, Nepali *giddha*, Hindi *gīdh*, Gujarati *gīdh* ‘vulture’, Marathi *gīd(h)*, *gidhād* ‘vulture, kite’, Yidgha *-yerenō* ‘eagle’ (< *\*gr̥dnu-*). The etymology looks plausible, though some historical-phonological irregularities need explanation. The source form of the Burushaski word in the donor language must have undergone devoicing of the final voiced affricate with subsequent metathesis (PII *\*gr̥dhya-* > (*\*garij*, *\*garej* >) *\*gariz*, *\*garez* > *\*garič*, *\*gareč* > *gáčir*, *gacér*).

42. Hunza-Nager, Yasin *gamún* ‘Unterteil; (*am Baum*) Wurzel, Stumpf’ (Berger 1998b: 145). Probably < PII *\*gambhūna-*, cf. OIA *gambhan-* ‘depth’, Shina *gabūn* ‘foot of mountain, bottom, tree-trunk’ (Morgenstierne 1945: 92).

43. Hunza-Nager, Yasin *gaṭ* ‘Knoten (*auch im Stengel von Pflanzen*), Knorren (*im Holz*); Knöchel (*des Fingers*); Zyklus, Ablauf’ (Berger 1998b: 150). Berger’s etymology: T 4353 (= OIA *granthatyati* ‘ties’). Cf. also OIA *granthati-*, Hindi, Bengali, Marathi, Gujarati *gāṭh*, Punjabi, Lahnda *gaṇḍh*, Sindhi *g’añḍhi* ‘knot’, Proto-Iranian *\*graṇa-* > Middle Persian *grih*, Persian *giriḥ*, Khotanese *grratha*, Sogdian *γr’nš*, Ishkashimi *γureḥ*, Ossetic *ælxync’* ‘knot’. The immediate source of the Burushaski word most probably reflects the prototype *\*garthi-* or *\*gartha-*. The continuants of the PII root *\*garth-*<sup>21</sup> are found in some Dardic languages and in Pashto: Indus Kohistani *gār*, Brokskat *gaṭhi* ‘knot’, Pashai *gaṭanā* ‘joint’, *gaṭh-* ‘to tie’, Pashto *γarəl* ‘to twist, spin, plait’. As a loanword, the lexeme in question is also attested in Northwestern Tibetan dialects: Balti, Purik *gaṭ* ‘knot, joint of body’, Ladakhi (Leh dialect) *chang-gat* ‘knee-joint’, *gat* ‘obstacle’ (Kogan 2019).

44. Hunza-Nager *gukúrus, gukúro*, Yasin *kukúres* ‘Hündchen, junger Hund; Junges des Schneehuhns’ (Berger 1998b: 159). Berger’s etymology: T 3329 (= OIA *kurkura-*, *kukkura-* ‘dog’). Cf. Tirahi *kukri*, Shina *khūkūr* (Gilgiti dialect), *kūkúr* (Gurezi dialect) ‘puppy’, Kumauni, Nepali, Bengali *kukur* ‘dog’, Sinhalese *kukurā* ‘dog, puppy’. Nuristani, Dardic and Iranian forms with intervocalic *-č-* or its regular reflexes may also belong here: Waigali *kućuru* (*ć* < *\*č*), Bashkarik

<sup>21</sup> This root is, no doubt, a variant of PII *\*grath-/granthat-* ‘to tie, bind’.

*kučur*, Woṭapuri *kučúr*, Torwali *kuǰú* (*j* < \*č), Indus Kohistani *kučár* (*č* < \*č), Palula *kučuro* ‘dog’, Kashmiri *kučur* (*č* < \*č) ‘puppy’, Kurdish *kūčik*, Balochi *kučak(k)*, Parachi, Ormuri *kučuk* ‘dog’. The word is sometimes considered onomatopoeic (Mayrhofer 1992: 372).

45. Hunza-Nager, Yasin *ǰaténç* ‘Schwert, zweischneidiger Säbel’ (Berger 1998b: 174). Berger’s etymology: T 2858, 2860, 2862 (= OIA *kartari-* ‘scissors, knife’, *kaṭṭāraka-* ‘knife’ (< \**karttāraka-*), *karttrkā-* ‘knife, dagger’). A cognate of this word seems to have been borrowed into Balti (cf. Balti *rkat* ‘to cut down with a sword’)<sup>22</sup>. The details of the sonorization process in Burushaski are not quite clear: one would expect the initial voiced stop *g* rather than fricative *ǰ*.

46. Hunza-Nager *ǰuṭúl*, Yasin *xuṭúl* ‘großer, runder, oben sich verengender Korbbehälter zum Aufbewahren von Getreide’ (Berger 1998b: 183). Berger’s etymology: T 3546 (= OIA *kōṣṭha-* ‘granary, storeroom’). The Burushaski forms most probably reflect \**khuṭul* < \**kuṭhul* (cf. Shina *kotul*, *kuṭúul* ‘wattle and mud erection for storing grain’). The cluster *ṣṭh* in OIA *kōṣṭha-* has developed either from PIE \*-*sth-* (Pokorny 1959: 953) or PIE \*-*k’th-* (Mayrhofer 1992: 404–405).

47. Hunza-Nager, Yasin *jaṭ* ‘alt, greis’ (Berger 1998b: 225). Cf. OIA *jarati* ‘makes old, grows old’, *jīrṇa-* ‘old’, Av. *zar-* ‘to age, grow old’, *zarata-* ‘old’, Shina *ǰārū* ‘old’, *ǰarižóiki* ‘to become old’, Pashto *zōr* ‘old’ (< \**zarta-*). The prototype of the Burushaski word probably reflects the old perfect participle in *-ta-* (\**jarita-* < \**jarita-*?), also preserved in Iranian.

48. Hunza-Nager *jií*, Yasin *ji* ‘Leben, Seele, Selbst; Geliebter, Liebling; lieb (wie das eigene Leben)’ (Berger 1998b: 226). Berger’s etymology: T 5239 (= OIA *jīva-* ‘living, living being, vital breath, life’). Cf. also Old Persian *jīva-*, Av. *ǰuua-* ‘living, alive’, Kashmiri *zuw* ‘soul, living creature’, Punjabi *jīu*, Hindi *jī*, Kumauni *jyū* ‘life, soul’, Nepali *jiu* ‘body, life’, Bengali *jīu*, *ji* ‘life, spirit, courage’.

49. Hunza *juú*, *juúna*, Nager *juúa*, *juú-náa*, Yasin *jū*, *jūna* ‘etwa: Herr (höfliche Anrede gegenüber jedermann)’ (Berger 1998b: 231). Berger’s etymology: T 5240 (= OIA *jīva* ‘long live!’) or < West Tibetan *ǰu*, *ǰu*. Since the word is attested in Werchikwar, borrowing from Tibetan seems improbable. Cf. also Shina *jū* ‘salutation, Sir’, Lahnda *jīu*, Hindi *jī*, Nepali *jiu* ‘particle of assent or respect’, Kumauni *jyū* ‘term of respectful address’. Etymologically related to 48.

50. Hunza-Nager *ǰoo*, Yasin *ǰo* ‘plötzlicher Angriff, Verletzung’ (Berger 1998b: 235). Berger’s etymology: T 6640 (= OIA *drōgha-* ‘injurious’, *drōha-* ‘injury, treachery’). Cf. also Old Persian *drauga-*, Av. *draoga-* ‘lie, deceit’, Shina *jō* ‘injury; deception, treachery’, Sindhi *ǰrohu* ‘deceit’, Classical Persian *durōγ*, Kurdish *dirō* ‘lie’. For the change \**dr* > *j* see also 104.

51. Hunza-Nager *káṭar*, *kóṭar*, Yasin *káṭar* ‘Schnitte (Brot), Stück, Hälfte’ (Berger 1998b: 243). Berger’s etymology: T 3241 (= OIA *kuṭṭayati* ‘crushes, grinds, pounds’). This comparison is doubtful due to historical-phonological irregularities (the final *r* in the Burushaski forms remains unexplained), as well as semantic differences. More probable seems to be the connection with Sindhi *katiraṇu*, Punjabi, Hindi *katarnā*, Nepali *katranu* ‘to clip, shear’, Gujarati *kātarvū*, Marathi *kātarṇē* ‘to clip’, Kashmiri *katarun* ‘to cut into slices’ (< Indo-Aryan), Hindi *katrā* ‘piece’, Gujarati *kātrī* ‘thin slice’. The cited Indo-Aryan words are believed to reflect some derivatives of OIA *kartari-* ‘scissors, knife’ (Turner 1966: 145). The source of the Burushaski lexemes may also belong to the same etymon.

<sup>22</sup> For more Aryan etymological parallels to the Balti word see Kogan 2019.

52. Hunza *kiš* ‘*ererbtes Land, Landbesitz*’ (Berger 1998b: 245). According to Berger, Yasin *qíçi* ‘*der die Hälfte des Erbes allein bekommt*’ may be connected with the Hunza word (Berger 1998b: 244). Berger’s etymology: T 3448 (= OIA *kṛṣi-* ‘ploughing’). Cf. also OIA *kṛṣati* ‘ploughs’, *kṛṣāṇa-* ‘ploughing’, Av. *a-karšta-* ‘unploughed, uncultivated’, Dameli, Khowar *kiš-*, Pashai *kiš-* ‘to plough’, Kati, Dameli, Kalasha *kiš*, Waigali *kīš* ‘ploughing’, Pashai *kiš* ‘cultivated field, crops’, Khowar *kiš* ‘plough, cultivation’, Shina *kiši* ‘line’, Punjabi *kisāṇ*, Hindi, Nepali *kisān* ‘farmer, peasant’, Sogdian *kštyč* (Buddhist), *kyštyč* (Manichaeen) ‘cultivated field’, Classical Persian *kištan* ‘to till, sow’.

53. Hunza-Nager, Yasin *khan* ‘*Fort, Festung, befestigtes Dorf*’ (Berger 1998b: 251). Berger’s etymology: T 2720 (= OIA *kanthā-* ‘wall, town’ < Iranian). Phonologically closer, however, seem to be derivatives of PII *\*k(h)an-* ‘to dig’ (> OIA *khan-* ‘to dig’, Proto-Iranian *\*kan-/χan-* ‘to dig, throw, pile’<sup>23</sup>) with an initial aspirate. Cf., e.g. OIA *khanati* ‘digs’, *khānya-* ‘anything being dug out’. The original meaning in the donor language was perhaps ‘surrounded with a moat or earth rampart’. Interestingly, a similar semantic development is attested in Iranian where a number of words for ‘town, (fortified) settlement’ are formed from the same root (Edelman 2011: 347)<sup>24</sup>.

54. Hunza-Nager, Yasin *khaní* ‘*geröstete Weizen- oder Gerstenkörner beliebtes Schnellgericht bei Jägern usw.*’ (Berger 1998b: 251). Berger’s etymology: T 2661, 2665 (= OIA *kaṇa-* ‘a grain of corn’, *kaṇika-* ‘grain, a meal of parched wheat’). Cf. also Shina *kaná* ‘grain of rice with the husk on’, Kashmiri *kani* ‘granule’. The aspiration of the initial consonant in Burushaski remains unexplained.

55. Hunza-Nager *khanór* ‘*Körper von Tieren und Menschen, aus denen die Innereien herausgenommen sind*’, Yasin *khóngor* ‘*Gerippe*’ (Berger 1998b: 251). Berger’s etymology: T 2603 (= OIA *kaṅkāla-* ‘skeleton’). The initial aspirate, as well as the difference of accent between the Hunza-Nager and Werchikwar forms needs explanation.

56. Hunza-Nager *lañ man-* ‘*sich bewegen, schütteln, zur Seite springen; aufhören; sich verspäten*’, Yasin *lañ -mán-*, *lâm -man-* ‘*(Regen) aufhören*’ (Berger 1998b: 262). Berger’s etymology: T 10951 (= OIA *lamba-* ‘pendant’). The comparison is doubtful both phonologically and semantically. Cf., however, OIA *laṅghayati* ‘leaps over; transgresses; ascends; prevents’, *laṅghya-* ‘passable, to be traversed or passed over; to be neglected, negligible’, Pashai *laṅg-* ‘to descend’, Khowar *laṅgik* ‘to move, shake, sway’, Torwali *laṅg-* ‘to pass, cross’, Indus Kohistani *laṅg karāv* ‘to move or push someone or something to the side’, Palula *laṅg-* ‘to pass, cross, swim, bathe’, Shina *lañoiki* ‘to pass over, step over; to dismiss, see off’, Sindhi *laṅghaṇu* ‘to pass over’, Lahnda *lagghaṇ*, Punjabi *laṅghṇā* ‘to pass’. The Werchikwar form *lâm -man-* may have evolved from *lañ -mán-* due to assimilation of nasals.

57. Hunza-Nager *leés*, Yasin *leš* ‘*blaugrüner Fasan (Monal pheasant), kommt in Chilas, Astor vor*’ (Berger 1998b: 265). Cf. Kalasha *lohiṣṭ* ‘male of Himalayan pheasant’, Palula *lōwīṣṭ*, Bashkarik *lōīṭ* ‘golden oriole’, Torwali *lawēṭ* ‘male golden oriole’, Indus Kohistani *lhētḥ* ‘a gold pheasant with shining green feathers and a ‘crown’ (Zoller 2005: 372), Shina *lēš* ‘peahen’. Dardic words

<sup>23</sup> For numerous Iranian derivatives of this root see Edelman 2011: 199–214, 340–348.

<sup>24</sup> Cf. Proto-Iranian *\*kanta-*, *\*kanḍa-* > Khotanese *kanthā-*, Sogdian *knḍ*, Yaghnobi *kant* ‘city, town’. The Iranian source of the above-cited Sanskrit word reflected the same prototype.

are usually compared with the hypothetical Old Indian form *\*lōhiṣṭha-* ‘very red’ (Turner 1966: 650). If this etymology is true, the common Dardic prototype should be reconstructed as *\*laudiṣṭa-*.

58. Hunza-Nager, Yasin *máḡun* ‘*Perle, Halskette; Spule, Haspel*’ (Berger 1998b: 274). Berger’s etymology: T 9731 + 4190 (< *\*maṇiḡuṇa-*, cf. OIA *maṇi-* ‘jewel, ornament’, *ḡuṇa-* ‘thread, rope’). The first stem component of the above reconstructed compound may, however, with equal right be compared with OIA *manyā* ‘nape of neck’, Av. *manaodri-* ‘neck, nape’, Pashai *mandā*, Gawar-Bati *manda*, Bashkarik *maṇ* ‘neck’, Shina *māṇi* ‘Adam’s apple’, Sindhi *maṇi* ‘vertebrae of neck’, Romani *men* ‘nape of neck, neck, throat’.

59. Hunza-Nager, Yasin *man* ‘*Plattform aus Erde in Häusern (zum Schlafen und Sitzen), steinern in Gärten zum Sitzen, vor dem Poloplatz für die Honoratioren*’ (Berger 1998b: 278). Berger hypothetically compares the word to OIA *mañca-* ‘stage, platform, bed’ (T 9715). No other examples of the change *ñč > n* have been attested. See Starostin 2005 for a possible Sino-Caucasian etymology.

60. Hunza-Nager, Yasin *mart* ‘*steile, abgeböschte Erdwand am Flußufer*’ (Berger 1998b: 282). Cf. OIA *mṛttikā-* ‘earth, clay’, *mārttika-* ‘earthen’. Shina *māç*, *moç* ‘earth-cliff’ is either unrelated to the Burushaski word or has evolved through metathesis (*\*mārtta-* > *\*mart* > *\*matr* > *māç*), the retroflex affricate *ç* being the regular reflex of the earlier cluster *tr* in Shina. Morgenstierne (1945: 92) hypothesizes a metathesis in Burushaski (*mārt* < *\*matr*). This hypothesis, however, makes the lexeme under study unetymologizable.

61. Nager *mázur*, Yasin *mázar*, *mazúr* ‘*Linsen, Hülsenfrucht*’ (Berger 1998b: 285). Berger’s etymology: T 9924 (= OIA *masūra-* ‘lentil’). The change *s > z* is also attested in Shina *mázur* ‘lentils’.

62. Hunza-Nager *meés* ‘*Ledertasche*’ (Berger 1998b: 286). Berger’s etymology: T 10343 (< *\*maišya-* ‘ovine’). Cf. also OIA *mēṣa-*, Av. *maēša-* ‘sheep, ram’. This comparison was first proposed by Morgenstierne (1935: XXII–XXIII). Since no cognates of the Burushaski word are attested in neighboring Indo-Iranian languages, it may well belong to the early Aryan loan vocabulary.

63. Hunza-Nager *miná*, Yasin *miná*, *mená* ‘*Ölkuchen, Aprikosenkerne, aus denen das Öl herausgepreßt ist*’ (Berger 1998b: 288). Berger’s etymology: T 8174 (= OIA *piṇyāka-* ‘oil-cake’). Cf. also Shina *pino* ‘kernels from which oil has been expressed’, Kumauni *pinā* ‘oil-seed refuse’, Hindi *pīnā* ‘oil-cake’.

64. Hunza-Nager *mindáq*, Yasin *mandáq* ‘*Kranich*’ (Berger 1998b: 288). Berger’s etymology: T 9744 (< *\*maṇḡādaka-* ‘frog-eater’, cf. OIA *maṇḡa-*, *maṇḡuka-* ‘frog’). Cf. also Khowar *maḡáq*, *mandáq* ‘heron’. Borrowing from Khowar, theoretically possible for the Yasin dialect, is for linguogeographical reasons unlikely for Burushaski proper.

65. Nager *mirdík* ‘*die seitliche Wand, die beim Ausheben von Erde entsteht; kleine Lehmwand*’ (Berger 1998b: 289). Berger’s etymology: T 10286 (= OIA *mṛttikā-* ‘earth, clay’). A more probable prototype seems to be *\*mṛdikā-*, cf. OIA *mṛd-*, *mṛdā-* ‘earth, clay’. The sequence *ir* in the Burushaski word may convey either the retained syllabic *ṛ* or its regular reflex in the donor language.

66. Hunza *muç*, Yasin *-muṣṭ* ‘*Faust, Handvoll*’, Hunza *múci*, Nager, Yasin *muṣṭi* ‘*Pflugsterz*’ (Berger 1998b: 292). Berger’s etymology: T 10221 (= OIA *muṣṭi-* ‘clenched hand, fist; handful’). Cf. also Av. *muṣti-*, Khotanese *muṣṭu*, Sindhi *muṭhi*, Lahnda, Punjabi *muṭṭh*, Hindi, Gujarati,

Marathi *mūṭh*, Nepali *muṭhi*, Classical Persian *mušt*, Shughni *mut*, Wakhi *məst*, Kashmiri *mōṭh*, Palula, Kalasha, Khowar *muṣṭi*, Pashai *muṣṭī* ‘fist’; Gawar-Bati *muṣṭāk* ‘fist’, *muṣṭ* ‘handle of plough’; Shina *muṭ(h)* ‘fist’, *muṣṭi* ‘handle of plough’. The Hunza word for ‘fist’ can hardly be borrowed from Shina. If this were the case one should expect Hunza \**muṭ*.

67. Hunza-Nager, Yasin *nas* ‘Geruch, Duft; Parfum; Moschus’ (Berger 1998b: 301). Berger’s etymology: T 7093 (= OIA *nāsya-* in *nāsya-grāsam* ‘nose cord’). Cf. also OIA *nasya-* ‘belonging to or being in the nose’, Sindhi *nāsa*, Lahnda, Punjabi, Hindi, Marathi, Kashmiri *nās* ‘snuff’, Gujarati *nās* ‘inhalation of smoke through nose’.

68. Hunza-Nager *páayo*, Yasin *pálu* ‘Keil (zum Spalten von Klötzen, zum Befestigen des Kopfes am Polostock)’ (Berger 1998b: 309). Berger’s etymology: T 8032 (= OIA *pātayati* ‘splits, opens’). Hunza-Nager *y*, Yasin *l* < \**ɾ* (< \**-t-*, \**-d-*). The Old Indian verb, as well as the source form of the Burushaski words, reflects PIE \*(s)p(h)el-t- (Pokorny 1959: 985–987). Note the effect of Fortunatov’s law in the donor language.

69. Nager *pítkiṣ* ‘Gallenblase’, Hunza *pit* ‘Hitze und Jucken’, Yasin *-pét, -pít* ‘Galle’ (Berger 1998b: 316). Berger’s etymology: T 8181 (= OIA *pitta-* ‘bile’). Cf. also Shina *pit*, Kashmiri *pēth*, Sindhi *pitu*, Punjabi *pitt*, Hindi, Gujarati *pit*, Kumauni *piti* ‘bile’, Assamese *pit* ‘bile, gall-bladder, courage’.

70. Hunza, Yasin *punár*, Nager *phunár* ‘Blume’ (Berger 1998b: 318). Berger’s etymology T 13846 (= OIA *sphuṅṭati* ‘expands’, *sphuṅṭatē* ‘opens’) or T 8257 (= OIA *punḍari-* ‘lotus’). In some Dardic languages there are words for ‘flower’, etymologically related to OIA *sphuṅṭati*: Shina *phūnār*, Chillisso *phundo*, Gowro *phono*, Indus Kohistani *phuṅ(d)*, Bashkarik *phuṅḍ*. This fact argues for the former of Berger’s comparisons.

71. Hunza-Nager *pháan-*, Yasin *phân-* ‘(Menschen, Tiere) wachsen, schwellen, (Baum) viele Zweige treiben; durchsickern (Wasser aus einem nicht ganz versperreten Kanal)’ (Berger 1998b: 320). Berger hypothesizes an etymological connection with OIA *sphāna-* ‘swelling, increasing’ (T 13829). The etymology looks quite plausible.

72. Hunza-Nager, Yasin *phal* ‘(Getreide-)Korn; ein kleines Stückchen (Fleisch)’ (Berger 1998b: 320). Berger’s etymology: T 9051 (= OIA *phala-* ‘fruit, seed of a fruit, spot on dice’). Cf. also Ashkun *pol*, Kati *pul*, *pyur* ‘grain’, Waigali *pol* ‘a single grain’, Tirahi *phallī* ‘grain’, Pashai *phal* ‘fruit, seed’, Shumashti *phāl* ‘a single grain’, Kalasha *phālak*, Khowar *pholok*, Palula *phalūrī*, Shina *phal*, Kashmiri *phol* ‘grain’, Sindhi *pharu*, Lahnda, Punjabi, Hindi, Kumauni, Nepali *phal*, Assamese, Bengali *phol*, Oriya *phaḷa*, Gujarati, Marathi *phaḷ*, Sinhalese *pala* ‘fruit’. Note the greater semantic similarity of the Burushaski word to Dardic than to Indo-Aryan.

73. Hunza-Nager *-phált-* ‘brechen, aufbrechen, ein Loch hineinbrechen, in die Luft sprengen’, Hunza-Nager *du-phált-*, Yasin *du-phált-* ‘platzen, (Gewehr) losgehen, (Herz) brechen’ (Berger 1998b: 322). For etymology see "Introduction".

74. Hunza *phaltóocini* ‘Wickelgamaschen’ (Berger 1998b: 322). For etymology see "Introduction".

75. Hunza-Nager *pháqo* ‘Art Brot...; Brot überhaupt’, Yasin *páqu* ‘Brot’ (Berger 1998b: 323). Berger’s etymology T 7621 (= OIA *pakva-* ‘cooked, ripe’). The source of the Burushaski words may

as well have been the reflex of PII \**pāka-*, cf. OIA *pāka-* ‘baking, cooking, burning (e.g. of bricks)’, Av. *nasu-pāka-* ‘cremating (lit. cooking) corpses’.

76. Hunza-Nager, Yasin *phar* ‘*sich drehend, kreisend, zurück*’ (Berger 1998b: 323). Berger’s etymology: T 9050 (< \**pharati* ‘moves, turns’). Cf. also Av. *spar-* ‘to tread, hasten’, Classical Persian *sipardan* ‘to travel’, Shina *phar* ‘turn’, *phīróŋkī* ‘to turn, return’, Kashmiri *phirun* ‘to turn over’, Punjabi, Hindi *phirnā*, Kumauni *phirṇo* Nepali *phirnu* ‘to wander’ (< \**phirati*).

77. Hunza-Nager *pharát -t-*, Yasin *pharát et-* ‘*drehen, winden, schrauben*’ (Berger 1998b: 324). Berger’s etymology: T 7872 (= OIA *parivoartatē* ‘revolves, turns round’). Cf. also Shina *pharāt thoŋkī* ‘to twist’, Pashai *paraŋi-*, Savi *parat-* ‘to turn round’, Gawar-Bati *parati-* ‘to fall’, Lahnda *partaṇ* ‘to return’, Marathi *paratṇē* ‘to turn, revolve, return’.

78. Hunza-Nager *pháta*, Yasin *pháte* ‘*hölzerne Schüssel*’ (Berger 1998b: 326). Berger’s etymology: T 8055 (= OIA *pātra-* ‘drinking vessel, dish’). The word must have been adopted from some Middle or New Indo-Aryan language with (t)t < OIA *tr* (cf., e.g. Pali *patta-*, *pāṭī* ‘bowl’, Prakrit *patta-* ‘vessel’). Shina *pāṭi* ‘large dish’ should also be considered a loanword because in Shina the regular reflex of the old cluster \**tr* is *ç*.

79. Hunza *phíimiri*, *phímicini*, Nager *phíinin*, Yasin *phémini* ‘*kleine Welle, Wellengekräusel, Schaum*’ (Berger 1998b: 328). Berger’s etymology: T 9108 (= OIA *phēna-* ‘foam, froth’). Cf. also Ashkun *piēre*, *pēre* ‘scum, foam’, Waigali *přē*, Kati *přē*, Dameli *phīna*, Pashai *phēn*, Gawar-Bati *phēn*, Kalasha *phēnu*, Khowar *phenu*, Bashkarik *phān*, Palula *phūn*, Shina *fiñē*, Kashmiri *phīni*, Sindhi *phīnu*, Kumauni, Gujarati, Marathi *phēn*, Ossetic *fīnk* ‘foam’, Persian *fīnak* ‘froth of the sea’. The intervocalic *m* of the Burushaski forms has probably developed from earlier \**n* due to the assimilating influence of the initial labial (*phíimiri* < \**phíiniṇ*, *phémini* < \**phéniṇ*).

80. Hunza-Nager *-phóini* ‘*Schulter*’, Yasin *-phúini* ‘*Genick*’ (Berger 1998b: 333). Berger’s etymology: T 13839 (= OIA *sphya-* ‘scapula’). Cf. also Sogdian *βyk* ‘shoulder’, Shughni *fiyak*, Munji *fiyo* ‘shoulderblade’, Wakhi *pəy* ‘wooden spade’, Waigali *pīwə*, Pashai *phū*, Khowar *phiu* ‘scapula’, Gawar-Bati *phīo*, Bashkarik *phī* ‘shoulderblade’, Indus Kohistani *phīā*, Shina *phīzu*, Kashmiri *phyok* ‘shoulder’. Direct borrowing from Shina or Khowar into Burushaski seems unlikely because of phonological differences.

81. Hunza-Nager, Yasin *phut* ‘*Art Naturgeist, etwa Gnom*’ (Berger 1998b: 338). Berger’s etymology: T 9552.2 (= OIA *bhūta-* ‘spirit, demon’). Initial *ph* in Burushaski no doubt conveys the original aspirate *bh*. This fact suggests that the source of borrowing was an Indo-Aryan rather than Dardic or Iranian lect. Most probably, we are dealing here with a loanword from Sanskrit or some very archaic Middle Indo-Aryan language retaining the old intervocalic *-t-* (cf. e.g. Pali *bhūta-* ‘demon’).

82. Hunza-Nager *qarqaámuc*, Yasin *qarqámuš* ‘*Huhn, Hahn, Henne*’ (Berger 1998b: 343). The word may reflect some derivative of PII \**kṛka-* ‘hen, cock’, cf. OIA *kṛkavāku-*, Av. *kahrka-* ‘cock’, Middle Persian *kark* ‘chicken, hen’, Kurdish *kerk*, Ossetic *kark*, Wakhi *kərk* ‘hen’, Kalasha *kakawáŋk* ‘chicken, hen’ (Trail & Cooper 1999: 146). Shina *kārkāmūš* ‘hen’ is probably a Burushaski loanword.

83. Hunza-Nager *ráači*, Yasin *ráči* ‘*Wächter, Wachtposten; Schutzgeist*’ (Berger 1998b: 361). Berger’s etymology: T 10557 (= OIA *rakṣin-* ‘guard, watcher’). Cf. also Shina *rači* ‘guard, watch’, Kashmiri *rāčh* ‘watchman’, Hindi *rākhī* ‘field-watcher’.

84. Hunza-Nager *rajaáki*, Yasin *rajáki* ‘unbezahlte Arbeit für den Mir bzw. den Staat; Zwangsarbeit’ (Berger 1998b: 362). Berger’s etymology: T 10694 (= OIA *rājya-* ‘kingship, kingdom’, Shina *raji* ‘rule, government’). The elements *-áki* in the Hunza-Nager and *-áki* in the Yasin dialect seem to be etymologically identical to the Burushaski derivational formant *-áki*<sup>25</sup>. Shina *rajáki* ‘compulsory communal labor’ must have been borrowed from Burushaski.

85. Hunza-Nager, Yasin *sar* ‘gedrehter Wollfaden, Garn, Kammgarn’ (Berger 1998b: 375). Berger’s etymology: T 13260 (= OIA *sara-* ‘string’, *sarikā-* ‘string of pearls’). The word was also borrowed into Northwestern Tibetan dialects: Balti (Skardu dialect) *syar*, Purik, Ladakhi *sar* ‘wick’ (Kogan 2019).

86. Hunza-Nager *sarúu-*, Yasin *sarú-* ‘(Lasten) hin- und her tragen, in Stationen tragen’ (Berger 1998b: 376). Berger’s etymology: T 13358 (= OIA *sārayati* ‘makes move, removes’). Cf. also Shina *saroiki* ‘to bring in, fetch (water, grass, crops)’, Kashmiri *sārun* ‘to transport gradually from one place to another (e.g. grain from threshing floor to house), collect’, Kumauni *sārño* ‘to convey, remove, transplant, copy, separate grain from dirt’, Garhwali *sārnū* ‘to carry a load’, Nepali *sārnū* ‘to move’.

87. Hunza-Nager *sínda*, Yasin *sénde* ‘Fluß’ (Berger 1998b: 379). Berger’s etymology: T 13415 (= OIA *sindhu-* ‘river, the Indus, flow (in general), sea’). Cf. also Tirahi *sīnd*, Khowar *sin*, Indus Kohistani *sīn*; Shina *sīn* ‘river’. The Old Indian word is traditionally derived from PII *\*sindhu-* ‘natural border’ (Mayrhofer 1996: 729–730). It is, however, argued by some scholars (see, e.g. Pinnow 1953; Harmatta 1992) that borrowing from Burushaski into Aryan may have taken place.

88. Hunza-Nager, Yasin *su-* ‘erstarrtes Präfix “gut”, “sehr” in zahlreichen Adjektiven’ (Berger 1998b: 383). Berger compares the OIA prefix *su-* indicating goodness. Sometimes, however, the Burushaski prefix seems to denote possession: *sutúulo* ‘schwer’ (Berger 1998b: 386), cf. *atúulo* ‘leicht, schwach’ (Berger 1998b: 386), OIA *tulā-* ‘balance, weight’, Shina *tul* ‘weight, strength’. In such cases it may reflect PII *\*sa-*, *\*sam-* ‘together, with, possessing something’ (> OIA *sa-*, *sam-*, Av. *ha-*, *ham-*), phonologically influenced by *\*su-*.

89. Hunza-Nager *sameéy*, Yasin *sámé* ‘vier Holzpflöcke, von denen je einer am Jochbalken des Pflugs an den Seiten der beiden Ochsen befestigt ist, um sie zusammenzuhalten; einer dieser Pflöcke’ (Berger 1998b: 390). Berger’s etymology: T 12322 (< *\*śamyēṣā-*, cf. OIA *śamyā-* ‘stick, wedge, peg, yoke pin’, *īṣā-* ‘pole of carriage or plough’). Cf. also Shina *šamēṣ* ‘yoke pin’.

90. Hunza-Nager, Yasin *śaní* ‘(Gemüse-)Garten’ (Berger 1998b: 390). Berger’s etymology: T 12323 (= OIA *śayana-* ‘bed’). Cf. Woṭapuri *šen* ‘garden’, Shina *šani*, *šeni* ‘garden plot, vegetable plot’ (Lorimer 1938: 326) with similar semantic development.

91. Hunza-Nager, Yasin *śani* ‘wach, aufmerksam; Aufmerksamkeit’ (Berger 1998b: 390). Berger’s etymology: T 12258 (= OIA *śānkā-* ‘fear, distrust’). Cf. also Shina *šon* ‘care, anxiety; awake, alert’, Khowar *šanig* ‘fear, suspicion’. The word is attested in Northwestern Tibetan dialects and in Zhangzhung: Balti *shang* ‘wisdom, sense’, Purik *šan* ‘consciousness’, Ladakhi *shang*

<sup>25</sup> On this formant see Berger 1998a: 211. Notably, Berger quotes examples of it being affixed to borrowed roots: *musulman-aáki* ‘Islam’, *kaafir-aáki* ‘paganism’.



‘alertness, awareness, caution, prudence’, Zhangzhung *shan* ‘consciousness’ < Indo-Iranian (Kogan 2019, 2021).

92. Hunza-Nager *śaráay*, Yasin *śará* ‘(Essen) kalt, abgestanden’ (Berger 1998b: 391). Probably a reflex of PII \*śāra-, \*śarta- ‘cold’, cf. Av. *sarata-*, Persian *sard*, Pashto *sōr*, Wakhi *śir* (< \*sāra-), Khovar *šaru* id., Pashai *šoro* ‘ice’, Shina *šārāvū* ‘cold (of food)’.

93. Hunza-Nager, Yasin *śarān* ‘Ruinen, Mauerreste’ (Berger 1998b: 391). Berger’s etymology: T 12326 (= OIA *śaraṇa-* ‘protecting; shelter, home’). Due to semantic difference, this comparison seems to be far-fetched. Much more probable is the connection with OIA *śaraṇa-* ‘falling asunder, bursting’, *śṛṇāti* ‘crushes, breaks’, Av. *a-sarā-ta-* ‘not discouraged (lit. ‘not broken’)', Shina *šaroniḷjoiki* ‘to be destroyed’, Gowro, Chilisso *šar-* ‘to break’.

94. Hunza-Nager, Yasin *śat* ‘Stärke, Kraft, Gewalt; sehr viele, eine große Menge’ (Berger 1998b: 392). Berger’s etymology: T 12250 (= OIA *śakti-* ‘power’). Cf. also Shina *śāt* ‘strength, violence’, Indus Kohistani *šāt<sup>h</sup>* ‘strength, power’.

95. Hunza-Nager *śipīt*, Yasin *īspīt* ‘*Medicago falcata* Linn., Luzerne (als Pferdefutter angebaut)’ (Berger 1998b: 395). Cf. Proto-Iranian \**aśua-asti-* ‘horse-food’ > Middle Persian *aspast* ‘clover, alfalfa’, Bactrian *aspista*, Classical Persian *aspist*, *ispist*, Pashto *špēšta* ‘alfalfa’ (Rastorgueva & Edelman 2000: 245). Borrowing from certain Iranian lect(s) seems probable for the Burushaski words. However, absence of a sibilant before the final *t* in both of them may point to a source form reflecting the prototype \**aśua-atti-*. This source form may well have belonged to some Dardic language (cf. Shina *īspīt* ‘alfalfa’).

96. Hunza *śiridāko*, Nager *śurdūni dāko*, Yasin *śiriduni* ‘Hauptpfosten des Hauses, spielt bei Riten eine Rolle’ (Berger 1998b: 395). Cf. Hunza-Nager *dāko* ‘hölzerne Säule, Dachpfosten, Zeltstange’ (Berger 1998b: 129), Yasin *duñ* ‘Pfosten’ (Berger 1998b: 395). Berger compares the first component with OIA *śrī-* ‘light, beauty; welfare, riches’ (T 12708). Semantically, however, the connection with OIA *śiras-* ‘head’ seems to be more probable, the original meaning of the whole compound thus being ‘the main (lit. ‘head-’) pillar’.

97. Hunza-Nager, Yasin *śuá* ‘gut, fein, nett, ausgezeichnet; bei guter Gesundheit; in guten Verhältnissen lebend; adv. gut’ (Berger 1998b: 397). Berger’s etymology: T 12532 (= OIA *śubha-* ‘bright, auspicious, good’). Cf. also Shina *šo*, Palula *šuwō* ‘good’, Indus Kohistani *śó* ‘good, nice; pretty’, Kashmiri *šūbun* ‘to be beautiful, to be proper’.

98. Hunza-Nager, Yasin *-śul* ‘Geburtswehen’, Hunza-Nager *śul* ‘Schmerz (vor Kälte)’ (Berger 1998b: 398–399). Berger’s etymology: T 12575 (= OIA *śūla-* ‘spike; sharp pain, colic’). Cf. also Bashkarik *śūl* ‘wound’, Shina *śūl*, Kashmiri *hīl* ‘labour pains’, Sindhi *sūru* ‘a pain’, Punjabi *sūl* ‘spike, thorn, colic’, Nepali *sul* ‘colic’, Hindi *sūl* ‘sharp-pointed weapon, sharp pain, colic’.

99. Hunza-Nager, Yasin *śaṇ* ‘Bresche, Zugang in der Mauer, der mit Dornen verschlossen wird, Lücke, Durchbruch; Grenze, Grenzlinie, Richtung’ (Berger 1998b: 404). Probably from earlier \**śaṇik*<sup>26</sup> < PII \**śṛṇa-ka-*, cf. OIA *śirṇa-* ‘broken (the perfect participle of *śṛṇāti* ‘breaks’)’.

<sup>26</sup> For *ṇ* < \**ṇik* see 91.

**100.** Hunza-Nager, Yasin *şini* ‘Röhre, Blutgefäß; Garnrolle (aus einer Rohre bestehend); Federkiel; Schwungfeder’ (Berger 1998b: 408). Berger’s etymology: T 12583 (= OIA *śṛṅga-* ‘horn’). Cf. also Dameli, Kalasha, Gawar-Bati, Palula, Shina *şin*, Waigali, Shumashti, Bashkarik *şin*, Kashmiri *həng*, Sindhi *sinu*, Punjabi *siṅg*, Hindi *sīṅg* ‘horn’.

**101.** Hunza-Nager, Yasin *tarin* ‘Schlauch aus Tierhaut (zum Aufbewahren von Flüssigkeit und für Floße)’ (Berger 1998b: 422). Berger’s etymology: T 5700 (= OIA *taraṇa-* ‘crossing; raft, boat’). The etymology is quite plausible because a raft made of inflated skinbags is the usual means for crossing mountain rivers in the region.

**102.** Hunza-Nager *tışci*, Yasin *téştik* ‘Spanne, Abstand von der Spitze des Daumens bis zu der des kleinen Fingers bei gestreckter Hand’ (Berger 1998b: 427). Berger’s etymology: T 6343 (= OIA *diṣṭi-* ‘measure of length’). Cf. also Dameli, Khowar, Palula *diṣṭ*, Shina *diṭ* ‘span’. The devoicing of original initial d in Burushaski remains unexplained.

**103.** Hunza *tışk*, Yasin *teşk* ‘Dolch’, Nager *tışk* ‘Bajonett’ (Berger 1998b: 427). Berger’s etymology: T 5839 (= OIA *tīkṣṇa-* ‘sharp’). The source form of the Burushaski words in the donor language does indeed seem to be related to the cited Old Indian adjective reflecting a derivative of the PII root *\*taig-* ‘to be sharp, pointed’ (> OIA *tējatē* ‘is sharp’, Av. *taēža-*, Middle Persian *tyz*, Classical Persian *tēz* ‘sharp’, Classical Persian *tēy* ‘sword, cutting edge’). However, absence of any traces of the earlier nasal in Burushaski suggests *\*tīkṣaka-* as a more probable prototype.

**104.** Hunza-Nager *újo*, Yasin *úju* ‘Fischotter, Otter’ (Berger 1998b: 453). Berger’s etymology: T 2056 (= OIA *udra-* ‘an aquatic animal’). Cf. also Av. *udra-*, Middle Persian *udrak*, Ossetic *wird*, Gawar-Bati *uλ*, Bashkarik *ūl*, Palula *ūdr*, Shina *ūžū*, *ujo*, Kashmiri *wōdur* ‘otter’. For the change *\*dr > j* see also 50. This change is shared by the donor lect with some Dardic languages, e.g. Shina and Torwali.

**105.** Hunza-Nager *wáar-* ‘bedecken mit, als Deckel benützen, drauflegen (um es zu bedecken)’, *wáariş* ‘Deckel’ (Berger 1998b: 462). Yasin *yáwarkiş* ‘Deckel’ (Ibid.) may also belong here. Cf. OIA *vṛṇoti* ‘covers’, Av. *aiβi-vərənuuaiti* ‘conceals’.

**106.** Hunza-Nager *yaári*, Yasin *yári* ‘das erste Morgenlicht; Sonnen- oder Mondstrahlen’ (Berger 1998b: 468). Cf. Av. *ayar-* ‘day (as opposed to night)’, Khowar *yor* ‘sun’ (*o < \*a*). Phonologically less probable is the connection with Wakhi (*y*)*ir* ‘sun’ (< Proto-Iranian *\*hūr-*).

**107.** Hunza-Nager *yáin*, Yasin *yánji* ‘Mühle, Wassermühle’ (Berger 1998b: 470). Berger’s etymology: T 10412 (= OIA *yantra-* ‘controlling device; any implement or contrivance’, *yantraka-* ‘handmill’). Cf. also Dameli *žandra*, *žan* ‘mill’, Pashai *žantr* ‘watermill’, Shumashti *žō*, Woṭapuri *yaṇ*, Gawar-Bati *žāλ*, *žōλ*, Kalasha *žōtr*, Bashkarik *yāl*, Palula *yāndr* ‘mill’, Shina *yōr* ‘large watermill’, Kashmiri *yēndir* ‘spinning wheel’, Sindhi *jaṇḍru* ‘handmill’, Lahnda, Punjabi *jandar* ‘watermill’. Hunza *yoór* ‘Mühle (mit Wasser betrieben)’ (Berger 1998b: 470) is a direct borrowing from Shina.

**108.** Hunza-Nager *zan -t-* ‘zerstoßen, zerstampfen, (Kern) aufschlagen, (Menschen) verletzen’ (Berger 1998b: 482). Cf. OIA *hanti*, Av. *ǰainti* ‘beats, strikes; kills’ < PII *\*jhanti*. The source of borrowing must have been a language characterized by dentalization of old palatal affricates. Therefore, it could not have been Shina where such a process did not take place.

**109.** Nager *zaq* ‘(plotzliches, rasch vergehendes) Kopfweh; adj. verwundet, verletzt, zerstoßen’ (Berger 1998b: 483). Probably with initial sonorization < \**chaq*. The source form of the Burushaski lexeme may have reflected the older prototype \**čhataka-*. Cf. OIA *kṣataka-* ‘wound’, *kṣaṇoti* ‘injures, hurts’, Khowar *čhek* ‘illness, pain’ < PIE \**tk’en-* (LIV: 645). The same word without sonorization has been borrowed into Northwestern Tibetan dialects: Balti *tshak* ‘rheumatism’, Purik *tshaq* ‘pain with difficulty of breathing’, *tshak yong* ‘to ache’, Ladakhi *tshak* ‘sprain, pulled muscle, sudden cramp, sudden sharp pain’ (Kogan 2019). Shina *zak* ‘headache’, Khowar *zaq* ‘severe pain in the head’ (Lorimer 1938: 389) with initial *z*, quite rare for the inherited vocabulary of these languages, must have been adopted from Burushaski.

### Data interpretation and discussion

I have listed those Burushaski words whose origin as early (“pan-Burushaski”) Indo-Iranian loans seems certain or highly probable<sup>27</sup>. Probably the most conspicuous feature of the presented list is its historical-phonological heterogeneity. One can find quite a number of instances where a particular PII phoneme or phoneme sequence is reflected differently in the same position. Thus, old initial palatal affricates may either remain unchanged (see **25, 26, 48, 49**) or be dentalized, sometimes with subsequent assibilation (see **20, 21, 22, 108**). Word-initially, the old syllabic sonorant \**w* (\**ɥ*) is in one case retained (see **105**) while in other cases it changes to *b* (see **10, 13, 15, 16, 17, 18**). The old intervocalic *d* is preserved in **7** and **26**,<sup>28</sup> and dropped in **17, 28, 64**. The PII cluster \**lt* has developed to a cerebral consonant (Proto-Burushaski \**r* > Hunza-Nager *y*, Yasin *l*) in **68** and remained unaffected by Fortunatov’s law in **73** and **74**. Clusters of the type “*r* + dental stop” either retain their first component (see **60**) or lose it with or without cerebralization of the historical dental (see **16, 43, 45, 47, 51**). All these facts unambiguously suggest that early Indo-Iranian loan vocabulary in Burushaski can hardly be considered a single etymological stratum *stricto sensu*, but rather should be subdivided into at least two separate strata — an archaic and an innovative one.

Another important fact, revealed while scrutinizing the above lexical material, is the presence of several cases of apparently Dardic historical-phonological development. Such cases include, e.g. the drop of a cluster-initial sibilant before a historical (Indo-Iranian) voiceless aspirate (PII \**ṣth* > \**ṣ̣th* > *t̪(h)*, see **46**) and the change of PII \**kš* to *ch* (see **30, 31, 32, 83**)<sup>29</sup>. If etymology **109** is correct, the reflexes of PIE \**tk’* (> *čh* > *ch*) also represent a Dardic historical-phonological isogloss, \**čh* being the Proto-Dardic reflex of this cluster. Notably, this feature indicates that, although belonging to the Dardic group, the language(s) under study can hardly be classified with the East Dardic branch<sup>30</sup> where the Proto-Dardic affricate \**čh* was cerebralized in the initial position. The deaspiration of old voiced aspirates, noted in quite a

<sup>27</sup> In the dictionary there are also a number of lexemes for which Berger proposes highly hypothetical Aryan etymologies. Some of these etymologies he himself marks with a question. Such cases should be dealt with separately, and I abstain from analyzing them in the present work.

<sup>28</sup> For **7** borrowing from Sanskrit theoretically cannot be ruled out, whereas for **26** Sanskrit origin seems unlikely due to semantic difference. The old *d* could also be retained between the syllabic sonorant \**r* and a vowel (see **65**).

<sup>29</sup> One instance is attested of the change \**kš* > *ć* (see **24**). In this case, the palatal affricate may well have evolved from the cerebral one (*ć* < \**č(h)*). If so, Hunza-Nager *čar -t-* must belong to the innovative etymological stratum, and the palatalization of the earlier cerebral affricate is most probably connected with the dentalization of historical palatal affricates, both transformations representing the same historical-phonological process.

<sup>30</sup> The East Dardic branch of the Dardic group includes Kashmiri, Shina, Palula and Kohistani languages.

number of words on the above list (see **6, 8, 19, 40, 87, 108**), is shared by Dardic, Iranian and Nuristani. However, no other Iranian or Nuristani traits have been attested in our material. Thus far, it seems impossible to derive any of the two aforementioned etymological strata from any particular Dardic language known to us. It is hoped that future research will throw some light on this problem.

There is one more issue that merits further study. As was demonstrated in my previous publications (Kogan 2019; 2020; 2021), there was in the past a lect adjacent to the Burushaski-speaking area and possessing distinctively Dardic features in terms of historical phonology. The only data on this lect available to us at present is a number of loanwords in Northwestern Tibetan varieties of Ladakh and Baltistan, as well as in the now extinct Zhangzhung language. The question arises whether this Indo-Iranian dialect can be closely related or identical to the source-language of at least some Indo-Iranian borrowings in Burushaski. This question can hardly be answered with certainty at the current state of our knowledge. On one hand, several words on our list do have etymological parallels in Balti, Ladakhi, Purik and Zhangzhung (see **17, 25, 43, 85, 91, 109**). On the other hand, some historical-phonological peculiarities of Indo-Iranian loans in Zhangzhung and Northwestern Tibetan (e.g. *\*a > o, u* before a prevocalic nasal; *\*ś > y, 0* intervocalically) are not shared by Burushaski words of Indo-Iranian origin analyzed above<sup>31</sup>. Whether this fact should be attributed to a different source or a different date of borrowing remains unclear.

What is, however, clear from all the above is that the traditional view of Indo-Iranian loan vocabulary in Burushaski is somewhat simplistic and for this reason should not be accepted in full. The issue of Burushaski-Aryan contact is far from being satisfactorily explored and hence needs more scholarly attention than it has received so far.

#### Abbreviations for language names

Av. — Avestan; OIA — Old Indo-Aryan; PIE — Proto-Indo-European; PII — Proto-Indo-Iranian; Tib. — Tibetan.

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<sup>31</sup> The innovative Aryan etymological stratum in Burushaski shares one single historical-phonological feature with Aryan loan vocabulary in Northwestern Tibetan dialects and Zhangzhung, namely, the dentalization of old palatal affricates.

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А. И. Коган. Об этимологической стратификации индоиранских заимствований в языке бурушаски.

В статье делается попытка уточнить общепринятые представления о происхождении индоиранской заимствованной лексики в языке бурушаски. Проанализировав обширный лексический материал, автор приходит к выводу о том, что весьма значительная часть подобной лексики была усвоена до распада протобурушаскского состояния и не может быть выведена ни из одного традиционно выделяемого языка-донора (шина, кховар, урду, персидского, восточноиранских языков Памира). Показано также, что

общебурушаскский сегмент арийского лексического пласта этимологически неоднороден, причем одним из его источников, вероятно, является некий дардский идиом.

*Ключевые слова:* язык бурушаски; арийские языки; дардские языки; языковые контакты; лексические заимствования; этимология.