

Originally appeared in: *Early Contacts between Uralic and Indo-European: Linguistic and Archaeological Considerations. Papers presented at an international symposium held at the Tvärminne Research Station of the University of Helsinki 8-10 January 1999.* (Mémoires de la Société Finno-ougrienne 242.) Chr. Carpelan, A. Parpola, P. Koskikallio (eds.). Helsinki 2001, 301-317.

The Indo-Iranian substratum

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1. Study of loanwords can be a powerful tool for determining prehistoric cultural contacts and migrations, but this instrument is used very differently in various disciplines. For instance, loanword studies are fully accepted in Uralic linguistics, whereas Indo-Europeanists are often reluctant to acknowledge foreign origin for words attested in Indo-European languages. The reason is obvious: in Uralic, we know the source of borrowings (Indo-Iranian, Germanic, Baltic), but the source of possible Indo-European loans is usually unknown. And still, it is a matter of great importance to distinguish between inherited lexicon and borrowings, even if the donor language cannot be determined.

In recent years, the methodology of dealing with borrowings from an unknown source has been developed by Kuiper (1991 and 1995), Beekes (1996), and Schrijver (1997). As these scholars have pointed out, an etymon is likely to be a loanword if it is characterized by some of the following features: 1) limited geographical distribution; 2) phonological or morphological irregularity; 3) unusual phonology; 4) unusual word formation; 5) specific semantics, i.e. a word belongs to a semantic category which is particularly liable to borrowing.

2. In my paper, I shall apply this methodology to the Indo-Iranian lexicon in search of loanwords which have entered Proto-Indo-Iranian before its split into two branches. As a basis for my study I use the list, gleaned from Mayrhofer's EWAia, of all Sanskrit etyma which have Iranian correspondences, but lack clear cognates outside Indo-Iranian. The complete list of some 120 Indo-Iranian isolates is presented in the Appendix.

The words of this list are by default characterized by the first of the above-mentioned criteria, viz. limited geographical distribution, but this in itself is not very significant because the lack of an Indo-European etymology can be accidental: either all other branches have lost the etymon preserved in Indo-Iranian, or we have not yet found the correct etymology. Only if a word has other features of a borrowing, must we seriously consider its being of foreign origin. The analysis of phonological, morphological and semantic peculiarities of our corpus will be presented in the following sections, but first I would like to make two remarks.

I use the term "substratum" for any donor language, without implying sociological differences in its status, so that "substratum" may refer to an adstratum or even superstratum. It

is possible that Proto-Indo-Iranian borrowed words from more than one language and had thus more than one substratum.

Another point concerns dialect differentiation. In general, we can speak of language unity as long as the language is capable of carrying out common innovations, but this does not preclude profound differences among the dialects. In the case of Indo-Iranian, there may have been early differentiation between the Indo-Aryan and Iranian branches, especially if we assume that the Iranian loss of aspiration in voiced aspirated stops was a dialectal feature which Iranian shared with Balto-Slavic and Germanic (cf. Kortlandt 1978: 115). Nevertheless, Proto-Indo-Iranian for a long time remained a dialectal unity, possibly even up to the moment when the Indo-Aryans crossed the Hindukush mountain range and lost contact with the Iranians.

3. Let us now look at the peculiar features displayed by some of the words from the corpus.¹

3.1. Irregular correspondences

In anlaut:

Skt. *s-* : PIr. **s-* (Skt. *śikatā-* : OP *śikā-* ‘sand’; Skt. *sūcī-* : LAV. *sūkā-* ‘needle’);

Skt. *k-* : PIr. **g-* (Skt. *kéśa-* ‘hair’ : LAV. *gaēsa-* ‘curly hair’);

Skt. *ph-* : PIr. **sp-* (Skt. *phāla-* : MoP *supār* ‘ploughshare’);

Skt. *ś-* : PIr. **xšū-* (Skt. *śépa-*, but Prākṛit *cheppā-* : LAV. *xšuaēpā-* ‘tail’).

In inlaut:

Skt. *-a-* : PIr. **-u-* (Skt. *jāhakā-* : LAV. *dužuka-*, Bal. *jažuk*, *dužux*, MoP *žūža* ‘hedgchog’);

Skt. *-ā-* : PIr. **-a-* (Skt. *chāga-* : Oss. *sæǵ* / *sæǵæ* ‘billy-goat’);

Skt. *-v-* : PIr. **-b-* (Skt. *gandharvá-* : LAV. *gaṇḍarəβa-* ‘a mythical being’);

Skt. *-dh-* : PIr. **-t-* (Skt. *gandhá-* ‘smell’ : LAV. *gainṭi-* ‘bad smell’);

Skt. *-ar-* : PIr. **-ra-* (Skt. *átharvan-* : Av. *āθrauuān-/aθaurun-* ‘priest’);

Skt. *-ar-* : PIr. **-r-* (Skt. *gandharvá-* : LAV. *gaṇḍarəβa-* ‘a mythical being’);

Skt. *-ūr-* : PIr. **-r-* (Skt. *dūrsá-* ‘coarse garment’ : Wakhi *δərs* ‘wool of a goat or a yak’).

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3.2. Impossible root structure for an Indo-European word

There is a well-known root structure constraint in Proto-Indo-European, which does not permit two unaspirated voiced stops within a root. This means that **gadā-* ‘club’ and **grda-* ‘penis’ could not have been formed in the Indo-European proto-language.

¹We should not be discouraged by the often “normal” looks of a word: the early date of borrowing may be responsible for the fact that the loan-words were adjusted to the phonemic system of that moment and went through the whole historical development of the Indo-Iranian languages. Note that I did not use the laryngeals in the reconstructions because for the time being we do not know at which stage and in which form the words were adjusted to the Indo-Iranian phonemic system.

3.3. Unusual structure (trissyllabic nouns with long middle syllable)

**pīūša-* ‘biestings’, **majūk^ha-* ‘wooden peg’, **jāvīā-* ‘canal’, **urāj^ha-* ‘wild boar’, **kapauta-* ‘pigeon’, **kapāra-* ‘vessel, dish’.

The structure of these words is such that it is very difficult to explain them on the basis of IE morphology. For instance, Mayrhofer (EWAia II: 138) writes about Skt. *pīūša-* ‘biestings’: “Gewiß zu *PAY^{II}* [‘to swell’], *pāyas-* [‘milk, fluid’] gehörig” with a reference to Wackernagel 1954: 500. Wackernagel assumes in this word a suffix *-ūša-*, which is further only found in the late Sanskrit words *gaṇḍūša-* ‘water for rinsing the mouth’ and *mañjūṣā-* ‘box, chest’ (to which we may add RV *āṅgūṣā-* ‘hymn’, Kuiper 1991: 19, 23), all of them being evident loanwords. Furthermore, even postulating a suffix *-ūša-* in *pīūša-* does not solve all the problems, since we are still left with an unexplained long *ī*. The foreign origin of *pīūša-* was already suggested by Kuiper 1968: 80, 1991: 46.

3.4. Phonetic peculiarities

Voiceless aspirates: *(s)*p^hāra-* ‘ploughshare’, **at^harūan-* ‘priest’, **kap^ha-* ‘mucus, phlegm’, **k^hā-* ‘well, source’, **k^hara-* ‘donkey’, **majūk^ha-* ‘wooden peg’.

Extremely frequent palatal stops: **āncū-* m. ‘Soma plant’, **ācā-/acās-* ‘region, space’, **carūa-* m. name of a deity, **dacā-* f. ‘hem, thread’, **dṛca-/dṛcā-* ‘coarse garment’, **j^harmija-* ‘firm structure’, **kačjapa-* m. ‘tortoise’, **kaica-/gaica-* m. ‘head hair’, **kučsi-* m. ‘side of the body, flank’, **maļ^ha-* (?) ‘belly’, **naij(s)-* ‘spit’, **ucig-* m. ‘sacrificing priest’, **urāj^ha-* m. ‘wild boar’, etc.

Frequent clusters with *-s-*: **kučsi-* ‘side of the body, flank’, **určša-* ‘tree’, **matsja-* m. ‘fish’, **naij(s)-* ‘spit’, **kšira-* ‘milk’, **pusca-* ‘tail’, **scāga-/scāga-* ‘billy-goat’.

The sequence *-rū-*: **at^harūan-* m. ‘priest’, **carūa-* m. name of a deity, **g^(h)and^h(a)rū/b^(h)a-* m. ‘a mythical being’.

3.5. Peculiar word formation

“Suffix” *-ka-* (normally only denominal): **atka-* ‘cloak’, **stuka-* ‘tuft of hair’, **urṭka-* ‘kidney’, **jaļ^ha/ukā-* ‘hedgehog’;

“Suffix” *-sa-* (rare in the inherited lexicon): **pīūša-* ‘biestings’, **určša-* ‘tree’;

“Suffix” *-pa-*: **kačjapa-* ‘tortoise’, **pāpa-* ‘bad’, **stūpa-* ‘tuft of hair’, **šūaipa-* ‘tail’;

Other unusual suffixation: **stu-ka-* vs. **stū-pa-* ‘tuft of hair’, **nagna(j^hu)-* (Skt. *nagnāhu-* m. ‘yeast’, Iran. **nagna-* ‘bread’), **karuš-* ‘damaged (teeth)’, **j^harm(i)ja-* ‘firm structure, permanent house’, **matsja-* ‘fish’, **naij(s)-* ‘spit’, **ucig-* ‘sacrificing priest’, **b^hišaj-* (Skt. *bhišaj-* m. ‘physician’; LAv. *bišaziia-* ‘to cure’), **paṇastā-* ‘cloth’.

3.6. Semantic categories

We can suspect that some words have been borrowed because they belong to a specific semantic field, even if they display no phonological or morphological anomalies. For instance, I assume that the religious terms **āncū-* ‘Soma plant’, **carūa-* name of a god, **mag^ha-* ‘gift, offering,

sacrifice’ are likely to be loanwords. These words belong to the cult of Soma-drinking Aryans and thus form a semantically closely related group. The other members of the group do show anomalies: **at^harūan-* ‘priest’ and **g^(h)and^harū/b^(h)a-* ‘a mythical being’ have irregular correspondences, and **indra-* shows irregular vocalization, **r̥ṣi-* ‘seer’ has irregular accentuation in Sanskrit, while **uc̣ig-* ‘sacrificing priest’ has unusual morphological structure.

Also for semantic reasons, I assume foreign origin for words like **dačā-* f. ‘hem, thread’, **išt(i)a-* ‘brick’, **uācī-* f. ‘axe, pointed knife’, etc.

3.7. In general, we can state that although the foreign origin of some of the words is open to doubt, there is a small, but undisputable body of loanwords in Indo-Iranian². Our next task is to scrutinize the structure of the Indo-Iranian substratum.

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4.1. The phonological and morphological features of Indo-Iranian loanwords are strikingly similar to those which are characteristic of *Sanskrit* loanwords, i.e. words which are only attested in Sanskrit and which must have entered the language after the Indo-Aryans had crossed Hindukush. The structure of Sanskrit loanwords has been discussed by Kuiper 1991, so that a few examples will suffice.

The *majūk^ha*-type (trisyllabic words with long middle syllable) is abundantly attested in the foreign vocabulary of Sanskrit, cf. *urvārū-* f. ‘cucumber’, *úlūka-* m. ‘owl’, *uṣṇīṣa-* m.n. ‘turban’, *r̥bīsa-* n. ‘oven’, *kapolá-* m. ‘cheek’, *kārīṣa-* n. ‘dung’, *kilāsa-* adj. ‘of variegated color’, *kísorá-* ‘foal’, *mayūra-* m. ‘peacock’, *masūra-* m. ‘lentil’, *śārdūlá-* m. ‘tiger’, *śṛgālá-* m. ‘jackal’, etc.³

Voiceless aspirates are represented e.g. in *ulūkhala-* n. ‘mortar’, *khilá-* m. ‘uncultivated land’, *khārī-* f. ‘measure of grain’, *kharvá-* adj. ‘mutilated’, *phála-* n. ‘fruit’, *múkha-* n. ‘mouth, face’, *śíkhā-* f. ‘tuft of hair, crest’.

Palatal stops are very frequent. For instance, in Kuiper’s list of 383 foreign words in the RV I counted more than 90 words containing palatal *ś*, *j*, *ch*, and *h*.

Clusters with *-s-* are: *kṣaumá-* adj. ‘linen’ (cf. also *úmā-* f. ‘flax’), *chúbuka-* n. ‘chin’, *mukṣījā-* ‘?’ (V), *ikṣvākú-* NPr. (RV), *kútsa-* NPr. (RV), *kṣúmpa-* ‘?’ (RV 1.84.8), etc.

For the “suffix” *-pa-* cf. *álpa-* adj. ‘small’, *turīpa-* n. ‘seminal fluid’, *púspa-* n. ‘flower’, *śás̄pa-* n. ‘young grass’, *śilpá-* adj. ‘variegated’ (also *śílpa-* n. ‘ornament’), *śúrpa-* n. ‘winnowing basket’, etc.

²During the discussion of my paper in Tvärminne, Professor E. Helimski stressed the point that the number of Indo-Iranian loan-words is relatively small, so that the homeland of the Indo-Iranians is likely to be not so far from the Urheimat of the Indo-Europeans.

³Cf. also *ulūkhala-* n. ‘mortar’ with four syllables. In my opinion, also *karmāra-* m. ‘blacksmith’ is a loanword and is not derived from the root *kr-* ‘to make’, as is usually assumed. Also Skt. *pṛḍāku-* ‘panther; kind of snake’ seems to be borrowed from the same language (the eventual origin of the word must be sought in the Near East, cf. the Iranian words like Sogd. *pwrδnk-*, MiP *palang*, etc., Gr. *πάροδλις* ‘leopard’).

For the “suffix” *-h-* cf. *malhā-* adj. ‘with hanging belly/udder’ (siad of goats and ewes) vs. *barjaha-* ‘udder’, *barjahya-* ‘nipple’.

For the “suffix” *-ig-* cf. *ṛtvij-* ‘priest’, *vañij-* ‘merchant’, *bhurij-* ‘?’.

For the sequence *-ru-* cf. *urvārū-* f. ‘cucumber’, *kharvā-* adj. ‘mutilated’, *turvāśa-* NPr., *pātharvan-* NPr. (RV 1.112.17), *phārvara-* ‘?’ (RV 10.106.2), probably *śarvarī-* ‘night’.

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4.2. The phonological and morphological similarity of loanwords in Proto-Indo-Iranian and in Sanskrit has important consequences. First of all, it indicates that, to put it carefully, a substratum of Indo-Iranian and a substratum of Indo-Aryan represent the same language, or, at any rate, two dialects of the same language. In order to account for this fact, we are bound to assume that the language of the original population of the towns of Central Asia, where Indo-Iranians must have arrived in the second millennium BCE, on the one hand, and the language spoken in Punjab, the homeland of the Indo-Aryans, on the other, were intimately related.⁴ At the present stage, it is useless to speculate about the possible identity of these languages, but this does not affect the argument.

Another consequence is that the Indo-Iranians must still have formed a kind of unity during their stay in Central Asia, albeit perhaps dialectally diversified. Judging by the later spread of the Indo-Aryans – to the south-west in the case of the Mitanni kingdom and to the south-east during their move to Punjab –, they were situated to the south of the Iranians, forming the vanguard, so to speak, of the Indo-Iranian movement. Accordingly, the Indo-Aryans were presumably the first who came in contact with foreign tribes and sometimes “passed on” loanwords to the Iranians. In this way, we may account for the difference between Skt. *śikatā-* and Iranian **sikatā-* ‘sand, gravel’ or Skt. *sūcī-* and Iranian **sūcī-* ‘needle’, which cannot reflect a single proto-form. At the stage when words with Skt. *s-* arrived at the Iranian territory, PIr. **s* had already become Iranian **h*, and PIr. **ć* had turned into PIr. **s*, so that these words entered Iranian with PIr. **s-*. This direction of borrowing (rather than from Iranian to Sanskrit, as is usually assumed) also explains the irregular correspondences within Iranian. For instance, the word for ‘sand, gravel’ has no less than four different formations in Iranian, viz. **sikā-* (OP *ṡikā-*, Bel. *six*, Pashto *šəga*), **sikaḡa-* (Median *Sikayauvati-* ‘made of gravel’, the name of a fortress, Munji *səgya*, Išk. *šəyio*, *sigioh*), **sikatā-* (Pahlavi *sygd = sikat*, Sogd. *šykth*, Khot. *siyatā*), **sikitā-* (Kurdish *sigit* ‘earth’, Oss. *sygyt/sigit* ‘id.’, etc.; the word for needle has two forms, viz. **sūkā-* (LAv. *sūkā-*) and **saučanja-* (MiP *sozan*, Khot. *saujsaṅa-*, Oss. *sūzīn/sozīnæ*, etc.) (Abaev 1958-95 III: 164-165, 187-188).

5.1. We can now turn to the culture with which the Indo-Iranians came in contact. Let us look at the semantic categories which are represented among the Indo-Iranian substratum words. I have

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⁴The links between the culture of Central Asia and that of the Indus Valley are also repeatedly reported by the archaeologists (cf. Parpola 1988: 204, Hiebert 1995 with ref.).

arranged them in accordance with their frequency. One of the largest categories is “body parts, hair” (9 items: **kap^ha-* ‘mucus, phlegm’, **kaića-/gaića-* ‘head hair’, **kučši-* ‘side of the body, flank’, **grda-* ‘penis’, **malj^ha-* ‘belly’, **pusća-* ‘tail’, **stuka-* ‘tuft of hair’, **šuaipa-* ‘tail’, **urtka-* ‘kidney’), but this category, as well as “pejorative adjectives” (**aka-* ‘bad’, **karuš-* ‘damaged (teeth)’, **pāpa-* ‘bad’), is not particularly telling for the identification of the culture.

“Religion, cult” (8) is shortly discussed above.

“Wild animals” (8): **(H)uštra-* ‘camel’, **k^hara-* ‘donkey’, **kaćjapa-* ‘tortoise’, **kapauta-* ‘pigeon’, **ja^ha/ukā-* ‘hedgehog’, **matsja-* ‘fish’, **mrga-* ‘game’, **uarāj^ha-* ‘wild boar’.

“Clothing” (5): **atka-* ‘cloak’, **daćā-* ‘hem, thread’, **dṛća-/dṛća-* ‘coarse garment’, **paustā-* ‘cloth’, **sūcī-/cūcī-* ‘needle’.

“Building technology” (4): **išt(i)a-* ‘brick’, **j^harmija-* ‘firm structure, permanent house’, **majūk^ha-* ‘wooden peg’, **sikatā-/ćikatā-* ‘sand, gravel’.

“Artifacts” (3): **kapāra-* ‘dish, bowl’, **naij(s)-* ‘spit’, **uācī-* ‘axe, pointed knife’.

“Water economy and irrigation” (3): **k^hā-* ‘well, source’, **čāt-* ‘pit, well’, **javjā-* ‘canal’.

“Cattle breeding” (3): **kšira-* ‘milk’, **pūšā-* ‘biestings’, **śāga-/śāga-* ‘billy-goat’.

“Agriculture” (2): **nagna-* ‘yeast, bread’, *(s)*p^hāra-* ‘ploughshare’.

5.2. Starting with the assumption that loanwords reflect changes in environment and way of life, we get the following picture about the new country of the Indo-Iranians. The landscape must have been quite similar to that of their original homeland, as there are no new terms for plants or landscape. The new animals like camel, donkey, and tortoise show that the new land was situated more to the south. There was irrigation (canals and dug wells) and elaborate architecture (permanent houses with walls of brick and gravel). Agriculture still did not play an important role in the life of Indo-Iranians: presumably, they did not change their life-style and only used the products (‘bread’!) of the farmers, hardly tilling the land themselves. The paucity of terms for military technology (only **gadā-* f. ‘club’) can be seen as an indication of Aryan military supremacy. It seems further obvious to me that the Soma cult was borrowed by the Indo-Iranians.

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This picture, which is drawn on exclusively linguistic arguments, is a strong confirmation of the traditional theory that the Indo-Iranians come from the north. Most probably, the Indo-Iranians moved from the Eurasian steppes in the third millennium BCE (Pit-Grave culture, 3500-2500 BCE) in eastern direction, first to the region of the lower Volga (Potapovo, etc., 2500-1900 BCE) and then to Central Asia (Andronovo culture, from 2200 BCE onwards).

As we have seen above, there are reasons to believe that the Indo-Aryans formed the vanguard of the Indo-Iranian movement and were the first to come into contact with the original inhabitants of the Central Asian towns. Then, presumably under pressure of the Iranians, who were pushing from behind, the Indo-Aryans moved further to the south-east and south-west, whereas the Iranians remained in Central Asia and later spread over the Iranian plateau. The

urban civilization of Central Asia has enriched the Indo-Iranian lexicon with building and irrigation terminology, with terms for clothing and hair-do, and for some artifacts. It is tempting to suggest that the word **gadā-* ‘club, mace’ refers to the characteristic mace-heads of stone and bronze abundantly found in the towns of the so-called “Bactria-Margian Archaeological Complex”. Also **yācī-* ‘axe, pointed knife’ may be identified with shaft-hole axes and axe-adzes of this culture.

6. Finally, I would like to shortly discuss the implications for the contacts between Indo-Iranian and Uralian speakers, which is the actual theme of this conference. As is well known, Uralic has heavily borrowed from Indo-Iranian, but I agree with those scholars who believe that many of the apparent early borrowings rather reflect an etymological relationship between Uralic and Indo-European, and I doubt that there are Proto-Uralic borrowings from Indo-European. At any rate, borrowings from Indo-Iranian start with the Finno-Ugrian period. It is remarkable that the oldest layer of borrowings often concerns words which are only attested in Sanskrit and not in Iranian (e.g. FU **ora-* ‘awl’ : Skt. *ārā-* ‘awl’; FV **reśmä* ‘rope’ : Skt. *rāśmī-* m. ‘rein’, *rāśmán-* m. ‘id.’; FV **onke* ‘hook’ : Skt. *aṅkā-* ‘hook’; FP **antz* ‘young grass’ : Skt. *āndhas-* ‘grass’, etc.). This fact can be explained by the vanguard position of the Indo-Aryans, who were the first to come into contact with the Uralic population on their move to the east. The Iranians, who came slightly later, lived in the neighborhood of the Uralians for a very long time and continuously contributed to the enrichment of the Uralian vocabulary.

Another problem is how to account for Indo-Iranian isolates which have been borrowed into Uralic. It is hard to believe that the new vocabulary, which was acquired by the Indo-Iranians in Central Asia, could reach the Uralians in time, so that we only have two options: either the Indo-Iranian isolates are of Indo-European origin, or the Uralians borrowed these words from an Iranian source at a later stage. To the first group may belong PIr. **raśm-* ‘rope, rein’ : FV **reśmä* ‘rope’ (the *-m-* is only attested in Sanskrit); PIr. **makš-* ‘fly, bee’ : FU **mekše* ‘bee’ (the fact that the word can be reconstructed for FU precludes a late date for borrowing); PIr. **surā-* ‘alcohol’ : PP **sur* ‘beer’ (the PP word cannot be a late borrowing from Iranian because of its **s-*) and PIr. **daśju-* ‘foreigner’ : Vog. *tas* ‘stranger’ (the Uralic word cannot be due to late borrowing from Iranian because of the preserved **s-*). On the other hand, I assume that FV **oraśe* ‘(castrated) boar’ was borrowed from Iranian (PIr. **urāṅ^ha-* ‘wild boar’ can hardly be an IE word). The same probably holds for FP **śuka* ‘chaff, awn’ because this form is only found in Iranian (LAv. *sūkā-* ‘needle’) and further for PP *vörk* ‘kidney’ (PIr. **ur_ṭka-*), FP/FV **śaka* ‘goat’ (PIr. **śāga-/śāga-*), PP **nān* ‘bread’ (PIr. **nagna-*), PP **majäk / majäg* ‘stake’ (PIr. **majūk^ha-*).

Appendix: A list of Indo-Iranian isolates

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The list presented below is based on Mayrhofer's EWAia. I have collected those Sanskrit etyma which have Iranian correspondences, but lack other IE cognates. In general, I follow the etymological analysis of Mayrhofer, and whenever I disagree with his judgement, this is expressly mentioned. Since it is often difficult to decide whether a particular word is a borrowing or not (the most important criteria have been discussed in the main body of the article), I have decided to present the evidence in full.

The list is divided into the following sections: A. Loanwords; B. Inherited words; C. Verbs; D. *Wanderwörter*; E. Words with uncertain IIr. etymology. The verbs are given separately, as at this stage it appears impossible to distinguish between inherited verbs and borrowings. The section "Wanderwörter" contains words which are attested both in Sanskrit and Iranian, but their Proto-Indo-Iranian age cannot be ascertained.

Every lemma begins with a Proto-Indo-Iranian reconstruction, followed by grammatical information (in the case of agreement between Sanskrit and Iranian) and the meaning. In square brackets I have added words from other language families (mostly, Uralic) which are borrowed from Indo-Iranian or from where an Indo-Iranian word might have been borrowed.

A. Loanwords

- **aka-* adj. 'bad': Skt. *áka-* n. 'pain', *ákam* adv. 'in a bad way'; Av. *aka-* 'bad, evil'.
- **ancu-* m. 'Soma plant' (probably ephedra): Skt. *amśú-* 'Soma plant'; Av. *ąsu-* 'Haoma plant'.
- **atka-* m. 'cloak': Skt. *átka-*; LAv. *ađka-*, *aṭ.ka-*.
- **at^harvan-* m. 'priest': Skt. *átharvan-*; Av. *āθrauuān-/aθaurun-*.
- **ācā-/acas-* 'region, space': Skt. *ásā-* f.; LAv. *asah-* n.
- **b^hiš-* 'medicine, medicinal herb': Skt. *bhiśáj-* m. 'physician'; Av. *biš-* 'medicine', LAv. *bišaziia-* 'to cure'.
- **carva-* m. name of a deity: Skt. *sarvá-* name of a god; LAv. *sauruua-* name of a daēva.
- **čāt-* 'pit, well': Skt. *čátvāla-* (Br.+) m.n. 'pit (dug in order to get ground for the northern altar)'; LAv. *cāt-* f. '(dug) well', Buddh. Sogd. *č't*, Bactrian *σαδο* 'well'.
- **dacā-* f. 'hem, thread': Skt. *dasā-* 'hem'; Khot. *dasa*, Bal. *dasag* 'thread'.
- **dṛcā-/dṛca-* (?) 'coarse garment': Skt. *dūrsā-* n. 'coarse garment'; Wakhi *ḍirs* (Grjunberg & Steblin-Kamenskij 1976: *dərs*) 'wool of a goat or a yak', Shughni *doxc* 'id.; body hair; coarse cloth' (cf. Karamšoev 1991 s.v.).
- **gadā-* f. 'club': Skt. (Sū+) *gadā-*; LAv. *gađā-*, MiP *gad*.
- **gand^h/t-* 'smell': Skt. *gandhá-* m. 'smell'; LAv. *gaiṅti-* 'bad smell'.
- **g^(h)and^h(a)ru/b^(h)a-* m. 'a mythical being': Skt. *gandharvá-*; LAv. *gaṇḍərəβa-*.
- **grda-* 'penis': Skt. *grdā-* m.; LAv. *gərəḍḍ.kərəta-* adj. 'cutting off the genitals'.
- **indra-* m. name of a deity: Skt. *índra-* name of a god; LAv. *iṅdra-* name of a daēva. Mayrhofer (EWAia s.v.) offers several etymologies, none of which is convincing, however. From a semantic point of view, the most plausible etymology is Slavic **jeđrь* 'strong, fresh', but the primary meaning in

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- Slavic is clearly ‘pit, kernel’. Note the “wrong” vocalization, if this were an IE formation (form *(H)indro- we expect Iir. ***j*adra-).
- **išt(i)a-* ‘brick’: Skt. *īṣṭakā-* f. (VS+); LAv. *ištiia-* n., OP *išti-* f., MiP *xišt* (cf. on this word Witzel 1995: 103).
- **jāvījā-* f. ‘canal’: Skt. *yavyā-/yavīyā/* ‘stream, canal’; OP *yauviyā-* ‘canal’.
- **j^harmijā-* ‘firm structure, permanent house’: Skt. *harmīyā-* n. ‘firm structure’, later ‘palace’ (for the meaning see Elizarenkova 1995: 28f.); LAv. *zairimīiāuuant-* adj. ‘with a permanent house’ (said of the moon), *zairimīiagura-* m. ‘tortoise’ = ‘with toes in a house’.
- **ja^ha/ukā-* ‘hedgehog’: Skt. (YV+) *jāhakā-* f.; LAv. *dužaka-*, Bal. *ja^huk*, *dužux*, MoP *žūža*. [Brahui *ja^hak*, Santali *j^hik* are most probably late borrowings from Indo-Iranian languages.]
- **kačjapa-* m. ‘tortoise’: Skt. *kaśyāpa-*; LAv. *kasiapa-*.
- **kadru-* ‘reddish-brown’: Skt. (TS+) *kādru-* ‘reddish-brown’; Av. *kadruua.aspa-* name of a mountain, MoP *kahar* ‘light brown’.
- **kaicā-/gaičā-* m. ‘head hair’: Skt. *késā-*; LAv. *gaēsa-* ‘curly hair’, *gaēsu-* ‘with curly hair’. Connection with Skt. *késara-* n. (YV+) ‘mane’ and Lat. *caesariēs* ‘head hair’ is uncertain.
- **kapauta-* m. ‘pigeon’: Skt. *kapóta-* ‘pigeon’; OP *kapautaka-* adj. ‘blue’, MiP *kabōd* ‘grey-blue, pigeon’.
- **kapāra-* ‘dish, bowl’: Skt. *kapāla-* n.; MiP *kabārag*, MoP *kabāra*.
- **kap^ha-* m. ‘mucus, phlegm’: Skt. *kapha-* (Up.+) ‘phlegm’; LAv. *kafa-* ‘foam, mucus’.
- **karuš-* adj. ‘damaged (teeth)’: Skt. *kārūḍatin-* ‘with bad teeth’; Sogd. *krw ḍnt’k* ‘id.’.
- **kučši-* m. ‘side of the body, flank’: Skt. *kukśī-*; Sogd. *qwšy-*. The often proposed connection with Skt. *kōśa-* m. ‘coop, cask’ is unconvincing.
- **kšīra-* ‘milk’: Skt. *kṣīrā-* n.; MiP *šīr*, Yidgha-Munji *xšīra*.
- **k^hara-* m. ‘donkey’: Skt. *khara-* (AVP+); LAv. *xara-*. [Akkadian (Mari) *ḥārum*, *ajarum* ‘donkey’; Tam. *kar utai* ‘id.’ ?]
- **k^hā-* f. ‘well, source’: Skt. *khā-*; LAv. *xā-*.
- **mag^ha-* n. ‘gift, offering, sacrifice’: Skt. *maghā-*; OAv. *maga-*. Connection with Gothic *mag* ‘can, may’ and its family is uncertain.
- **majūk^ha-* m. ‘wooden peg’: Skt. *mayūkha-* ‘peg for stretching the woof’; OP <*myux*> = *mayūxa-* ‘doorknob’, Sogd. *myyk* ‘peg’, MiP and MoP *mēx* ‘peg, nail’, Oss. *mīx/mex* ‘stake’. The current etymology derives the word from the root *mi-* ‘to build, erect’, which explains neither its morphology (suffix **-ūk^ha-*?), nor semantics (the verbal root only means ‘to fix in the ground’). The meaning ‘stake’ is only attested in Ossetic and is clearly secondary. [In view of its meaning, PP **majäk / majäg* ‘stake’ (Rédei 72) is probably borrowed from Pre-Ossetic.]
- **mal^ha-* (?) ‘belly’: Skt. *malhā-* adj. ‘with hanging belly/udder’ (said of goats and ewes)⁵; LAv. *mərəzāna-* n. ‘belly’, *maršuiiā* gen.sg. (the stem *maršuuī-* ?) ‘paunch’. Probably, also Skt. *bārjaha-* ‘udder’, *barjahyā-* ‘nipple’ belong here. The current IE etymology, connecting Lith. *mīlztis*, Latvian *mīlzt* ‘to swell up’, is phonetically impossible, since the Baltic acute points to IE **ǵ* (Winter’s Law).

⁵The word always refers to a female, usually pregnant, animal, cf. TS 1.8.19.1 *ādityāṃ malhāṃ garbhīṇīm ā labhate* ‘he offers a *malha* pregnant female animal, dedicated to Āditya’ (similarly, MS 4.4.9, KS 13.1, TB 1.8.3.2), so that the meaning ‘dewlap’, given in the dictionaries, is improbable.

- **matsja*- m. ‘fish’: Skt. *mátsya*-; LAv. *masiia*-. The current IE etymology, which connects Germanic words like Gothic *mats* ‘food’ < PGm. **mati-*, explains neither the meaning nor the morphology of the Ilr. word.
- **mṛga*- m. ‘game’: Skt. *mṛgá*- ‘forest animal, bird’; LAv. *mərəya*- ‘bird’.
- **nagna*- ‘yeast, bread’: Skt. *nagnáhu*- (AVP+) m. ‘yeast, ferment’; PIr. **nagna*- ‘bread’ (Sogd. *nyny*, Pashto *nayan*, MiP *nān* with an irregular development, etc.). The old theory, according to which the Skt. word was borrowed from Iranian **nagnax^vād-* ‘bread seasoning’, seems improbable to me. [→ PP **nān* ‘bread’ from Iranian, Rédei 73]
- **naij(s)*- ‘spit’: Skt. *nikṣ-* ‘to pierce’, *níkṣaṇa-*, *nékṣaṇa-* n. ‘spit, fork’; LAv. *naēza*- n. ‘sharp point (of the needle)’, MiP *nēzag* ‘lance’, MoP *nēš* ‘sharp point’, *nēštar* ‘lancet’. The Sanskrit verbal forms (present *níkṣati* with its accented zero-grade) do not look old.
- **paṇastā*- ‘cloth’: Skt. *pavásta*- n. ‘cover, garment’; OP *pavastā*- f. ‘thin clay envelope used to protect clay tablets’.
- **pāpa*- adj. ‘bad’: Skt. *pāpá*-; LAv. *pāpá*°.
- **pīūša*- ‘biestings’: Skt. *pīyūša*- m.n.; Wakhi *pyiḥ*, Munji *fəyū*.
- **puśca*- ‘tail’: Skt. *púccha*- m.n.; LAv. *pusa*- m.
- **rāci*- ‘heap’: Skt. *rāśi*- m. ‘heap, mass’; Pashto *ryāša* ‘heap (of grain)’ < **rāšijā*. A connection with **račm-* ‘rope’ cannot be excluded, however.
- **ṛṣi*- m. ‘seer’: Skt. *ṛṣi*-; OAv. *ərəši*-. The initial accentuation in Sanskrit is aberrant (Lubotsky 1988: 29, 54).
- **ścāga*-/*ścaga*- ‘billy-goat’: Skt. *chāga*- m.; Oss. *sæg* / *sæǰæ* ‘goat’, Wakhi *čəy* ‘kid’. [→ FP, FV **śaka* / *śawa* ‘goat’, Rédei 59]
- **sikatā*-/*čikatā*- ‘sand, gravel’: Skt. *śikatā*- f. ‘sand, gravel’; OP *šikā*- f. ‘gravel’, Khot. *siyatā*- ‘sand’, Buddh. Sogd. *šykth* ‘gravel’. [Kannada *usiku*, *usigu* ‘sand’ ?]
- **(s)phāra*- ‘ploughshare’: Skt. *phāla*- m.; MoP *supār*, Išk. *uspir*, Wakhi *spūndr* (Grjunberg & Steblin-Kamenskij 1976: *spundr* ‘plough’). It cannot be excluded that this is a migratory term and belongs to category D (Wanderwörter).
- **stukā*- ‘tuft of hair’: Skt. *stúkā*- f. ‘tuft of hair (esp. of a bull) or wool’; Oss. *styg/stug* ‘lock, tuft of hair’. Cf. also Skt. *stūpa*-, *stupá*- m. ‘tuft of hair’.
- **sūcī*-/*čūcī*- ‘needle’: Skt. *sūcī*-; LAv. *sūkā*-, MiP *sozan*, Oss. *sūžin/sožīnæ*. [→ FP **śuka* ‘chaff, awn’, Rédei 59; probably, from Iranian, cf. § 6.]
- **šuaipa*- (?) ‘tail’: Skt. *śēpa*- m. (with irregular anlaut), Prākṛit *cheppā*- f.; LAv. *xšuaēpā*- f. (for the etymology see Lubotsky 2000: 260, fn. 20).
- **ucig*- m. ‘sacrificing priest’: Skt. *uśij*-; Av. *usig*-.
- **uarāḥ^ha*- m. ‘wild boar’: Skt. *varāhā*-; LAv. *varāza*-. [→ FV **oraśe* ‘(castrated) boar’, Rédei 54; probably, borrowed from Iranian, cf. § 6.]
- **uācī*- f. ‘axe, pointed knife’: Skt. *vāśī*- f. ‘axe, adze, chisel’; LAv. (Yasna 42.4) *vāśī*- ‘pointed knife (?)’, Oss. *wæs* (better *was* ?)⁶ ‘axe, wood-chopper’.
- **určša*- m. ‘tree’: Skt. *vṛkṣā*-; LAv. *varəša*-.

⁶As Johnny Cheung points out to me, this word is undocumented in Ossetic. Both Abaev and Miller & Frejman s.v. *wæs* refer to Miller 1903: 10, but there this word is spelled as *vas*, i.e. *was*.

- **ur̥tka-* m. du. ‘kidney’: Skt. *vṛkka-* (TS+ *vṛkyau*); LAV. *vəṛəḍka-*. The usual etymology derives this word from the root *vṛt-* ‘to turn’, which can hardly be correct because the suffix *-ka-* is only denominal in Indo-Iranian. [→ PP *vōrk* ‘kidney’, Rédei 79]
- *(H)*uštra-* m. ‘camel’: Skt. *uṣṭra-*; Av. *uštra-*, OP *uša-bāri-* adj. ‘camel-borne’ (the laryngeal may be responsible for *-ḡ-* in *zaraḡuštra-*).

B. Inherited words

- *(H)*agra-* ‘top’: Skt. *ágra-* n. ‘tip, summit’; LAV. *ayra-* adj. ‘first, topmost’. The word has a clear IE appearance, although there are no plausible cognates. Note that the connection with Latvian *agrs* ‘early’ (Mayrhofer, EWAia s.v.) is impossible because of Winter’s Law.
- *(H)*ainas-* n. ‘crime, mistake’: Skt. *énas-*; Av. *aēnah-*.
- *(H)*and^ha-* adj. ‘blind’: Skt. *andhá-*; LAV. *aṇda-*. IE if Gallo-Latin *andabata* ‘gladiator fighting in a helmet without openings’ (*‘blind-fighter’) belongs here.
- *(H)*aruna-* ‘red-brown’: Skt. *aruṇá-*; Av. *auruna-*.
- *(H)*aruša-* ‘reddish’: Skt. *aruṣá-* ‘reddish’; Av. *auruša-* ‘white’.
- *(H)*asra-* adj. ‘painful’: Skt. *asrá-*; OAv. *aṅgra-*, LAV. *aṅra-* ‘evil’.
- *(H)*atHtHi-* (?) m. ‘guest’: Skt. *átithi-*; Av. *asti-*. The laryngeal in the Proto-Indo-Iranian form makes a non-IE origin improbable.
- *(H)*aud^hr/n-* ‘cold’: Skt. *údhani*, OAv. *aodəṛəš-čā*.
- *(H)*aṇasa-* n. ‘provision’: Skt. *avaśá-* (cf. also denom. *āvayati* ‘eats’); LAV. *auuapha-*.
- **carad-* f. ‘autumn, year’: Skt. *śarád-* ‘autumn, year’; LAV. *sarəd-*, OP <ḡrd-> ‘year’ (cf. Toch. A *śärme* ‘autumn’ < **kérdmēn-*?, Pinault 1998: 362).
- **dásju-* m. ‘foreigner’, **daśjú-* f. ‘country (of the foreigners)’: Skt. *dásyu-* m. ‘enemy’; Av. *daxiiu-* f. ‘country’. [→ Vog. *tas* ‘stranger’.] See the next word.
- **dāsa-* ‘(hostile) people’: Skt. *dāśá-*, *dāśa-* m.; LAV. *dāhī-* ‘belonging to the Dāha-people’. There are several suggestions for an IE etymology, but they are all doubtful (Gr. *δοῦλος* ‘slave’; Gr. *δήμος* ‘people’, for the latter see Lubotsky 1995: 231, fn. 18).
- **drapsa-* m. ‘streak, banner’: Skt. *drapsá-*, LAV. *drafša-* (for the connection with Gr. *τρέφω*, German *Treber*, etc. see Oberlies 1990: 153ff.).
- **d^hārā-* f. ‘blade of the sword’: Skt. *dhārā-*; LAV. *dārā-*. IE, if identical with Skt. *dhārā-* ‘stream, pouring’ (→ ‘casting’).
- **d^hrigu-* adj. ‘poor, needy’: Skt. *ádhriḡu-* ‘exalted’; OAv. *drigu-* ‘needy’, LAV. superlative *draējištō.tōma-*.
- **jacas-* ‘fame’: Skt. *yāśas-* n. ‘fame’; OAv. *yasō.xiiēn* ‘to attain fame’, LAV. *yasō.bəṛəta-* ‘brought with dignity’.
- **jaćti-* f. ‘stick, branch’: Skt. *yaśtī-* (RVKh, ŚB+) f. ‘staff, pole’; LAV. *yaxšti-* ‘branch’.
- **ja^hu-* ‘youthful’: Skt. *yahú-* ‘youthful’; OAv. *yazu-* ‘young’.
- **jātu-* ‘(black) magic’: Skt. *yātu-* m.; LAV. *yātu-* f. (m. ‘sorcerer’). In spite of its IE appearance, no convincing etymology for this word has been suggested.
- **jrājas-* n. ‘wide expanse, sea’: Skt. *jrāyas-* n. ‘wide expanse’; Av. *zraiiāh-* n., OP *drayah-* n. ‘sea’. Cf. also Skt. *úpa jrayati* ‘extends’. [→ PP **sariž* < **zaris* < **zarj3s* ‘sea’ from Iranian, Rédei 81.]
- **karna-* m. ‘ear’: Skt. *kārṇa-*; LAV. *karəna-*.

- **makš-* f. ‘fly, bee’: Skt. *mākṣ(ā)-* ‘fly, bee’; LAv. *maxšī-* f. ‘fly’. [→ FU **mekše* ‘bee’, Rédei 45.]
- **māiā-* f. ‘magic power’: Skt. *māyā-*; OAv. *māiīā-*, LAv. *maiīā-*. There are various etymological proposals, but they are all rather improbable. The word looks fairly IE though, and its IE origin is conceivable.
- **mušti-* ‘fist’: Skt. *muṣṭī-* m.f.; LAv. *mušti°*. Connection with the word for ‘mouse’ (e.g. Mayrhofer, EWAia s.v.) is impossible, because the latter contains a laryngeal (**muHs-*). The best chance for an IE etymology is the connection with Lith. *mūšti* ‘to beat’, Toch B *mašce* ‘fist’.
- **naima-* adj.: Skt. *nēma-* ‘some, half’; LAv. *naēma-* ‘half’.
- **pačšman-* ‘eyelash’: Skt. *pākṣman-* (YV+) n. ‘eyelash’; LAv. *pašna-* n. ‘eyelash or eyelid’, MiP and MoP *pašm*, Khot. *pe’ma-*, Oss. *fəsm/fans* ‘wool’. If the original meaning is ‘fluff’, then a connection with Gr. *πέκτειν* ‘to comb’ is plausible.
- **pāman-* ‘itch, scabies’: Skt. *pāmān-* m.; LAv. *pāman-* m. Probably connected with Gr. *πῆμα* n. ‘evil, harm’.
- **pṛt-* f. ‘battle’: Skt. *pṛt-*; Av. *pərot-*.
- **rac-m-* ‘rope, rein’: Skt. *raśanā-* f. ‘rope’, *raśmī-* m. ‘rein’, *raśmān-* m. ‘id.’; MiP, MoP *rasan* ‘rope’ (Skt. *raśanā-*, MiP *rasan* < **racmna-*?). [→ FV **reśmä* ‘rope’, Rédei 57.]
- **rūčša-* adj. ‘raw’: Skt. *rūkṣā-* (YV+) ‘raw, dry’; OAv. *uruša-* ‘needy, poor’. The connection with OHG *rūh*, etc. < PGM. **rūhwa-* is possible.
- **sainā-* f. ‘army’: Skt. *śēnā-*; LAv. *haēnā-*, OP *hainā-*.
- **srakti-* f. ‘corner’: Skt. *sraktī-* ‘corner’; LAv. *sraxti*, *θraxti-* ‘corner, side’. Here probably also *srkā-* ‘sharp point’. The variants like *srkāyīn-* (Kāth+) : *srḡāyīn-* (MS+) : *srkāvīn-* (TS), etc. ‘spear-bearer’ (see Kuiper 1991: 35) may point to foreign origin, though.
- **striH-* f. ‘woman, wife’: Skt. *strī-*; LAv. *strī-*.
- **surā-* ‘alcohol’: Skt. *sūrā-* f.; LAv. *hurā-* f. Probably, connected with the root **su-* ‘to press’. [→ PP **sur* ‘beer’, Rédei 77.]
- **taukman-* n. ‘germ, germed seed’: Skt. *tókman-*; Av. *tauxman-*. Cf. also the root-noun Skt. *túc-* f. ‘posterity, children’.
- **uanca-* ‘roof-beam’: Skt. *vaṃśā-* m.; Wakhi *was*, Shughnī *wūs*. Most probably, related to MIr. *féice* ‘ridge-pole, top’ < **u(e)nkio-*.
- **urata-* n. ‘rule, command’: Skt. *vratā-* ‘commandment’; OAv. *uruuata-* ‘rule’.

C. Verbs

- **b^haru-* ‘to chew’: Skt. *bharv-*; LAv. *aš.baouruua-* ‘place where there is much to eat’, *baoiriia-* ‘to be chewed’.
- **čan-* ‘to ascend’: Skt. *śānaiḥ* ‘gradually, quietly’; LAv. *san-*, Khot. *san-* / *sata-* ‘to rise’.
- **čjā-* ‘to coagulate, congeal’: Skt. *śyā-*; Oss. *syjyn/sujun*.
- **d^huaj-* ‘to flutter’: Skt. *dhvajā-* m. ‘banner’, *kṛtā-dhvaj-* ‘with streaming flags’; LAv. *duuaž-* ‘to flutter’.
- **g^has-* ‘to devour’: Skt. *ghas-*; LAv. *gah-*.
- **g^has-* ‘to laugh’: Skt. *has-*; LAv. *jahī-*, *jahikā-* f. ‘prostitute’.
- **g^hauš-* ‘to make sound, hear’: Skt. *ghoṣ-*, Av. *gaoš-*.
- **(H)at-* ‘to wander’: Skt. *at-* ‘to wander’; Av. *x^vāθra-* n. ‘well-being’.

- **Huǰiad^h*- ‘to wound, hurt’: Skt. *vyadh-*; LAv. *vīd-* ‘wounding’.
 **ǰ^hi-* ‘to incite’: Skt. *hi-*; LAv. *frazaiiāmi* ‘ich lasse hindringen’.
 **kuč-* ‘to crook, bend’: Skt. *kuc-*; MiP *n-gwc-*.
 **nard-*: Skt. *nrd-* ‘to hum, growl’; Buddh. Sogd. *nrδ-* ‘to complain’.
 **raj^h-*: Skt. *rah-* ‘to be abandoned’; MiP *rāz* ‘mystery’.
 **sag^h-* ‘to be able to bear’: Skt. *sagh-*; LAv. *azgatō* ‘unbearable’.
 **srans-* ‘to fall apart’: Skt. *sraṃs-*; LAv. *rāṅhaiiōn* ‘they make fall away’.
 **suag-* ‘to embrace’: Skt. *svaj-*; LAv. *pairiš.x^vaxta-* ‘surrounded’.
 **uand(H)-* ‘to praise’: Skt. *vand^h-*; LAv. *vaṇd-*.
 **uap-* ‘to scatter’: Skt. *vap-*; OAv. *vīuuāpaṭ* ‘scatters, robs, devastates’.
 **uap-* ‘to shave’: Skt. *vap-*; Khot. *patāvutta-* ‘shaven’.
 **uik-* ‘to separate, sift’: Skt. *vic-*; LAv. *vic-*, MiP *wēxtan/wēz-*.
 **uǰiak-* ‘to encompass’: Skt. *vyac-*; MoP *gunǰidan*.
 **uǰatH-* ‘to be unsteady’: Skt. *vyath-*; LAv. *aīβiθura-* (< **aūiθura-*) ‘unshakable’.
 **uriH-* ‘to oppress, collapse’: Skt. *vī-*; LAv. *uruūinaitiš* (acc.pl.f.) ‘pressing together’.

D. Wanderwörter

- Skt. *úmā-* f. ‘flax’; Yidgha *imoyō, ūmoyō*, Munji *yimagā* ‘linseed’ (cf. also Skt. lex. *kṣumā-* ‘id.’).
 Skt. *māśa-* m. ‘bean’; MiP *māś* ‘legume’, Shughni *max* ‘bean’.
 Skt. *muškā-* m. ‘testicle’; MiP *mušk* ‘musk’ (probably, a loanword from Indo-Aryan).
 Skt. *sarṣapa-* m. ‘mustard seed’; Khot. *śśāśvāna-* ‘mustard’, Sogd. *šywšp-δn*, MiP *span-dān* ‘mustard seed’ (cf. also Gr. *σίναπι* n. ‘mustard’).

E. Words with uncertain IIr. etymology

- Skt. *avāni-* f. ‘river bed, stream’; LAv. *aoniia-* n. ‘Heizvorrichtung’.
 Skt. *as^hi-* ‘to eat’; Iranian cognates, mentioned by Mayrhofer, are uncertain. LAv. *āsītō* (Yasna 10.14) rather means ‘lying’, cf. Humbach 1960: 27f., Oberlies 1990: 159 and 166, fn. 55. At any rate, this form cannot be derived from PIr. **ačHta-* because laryngeal disappears in this position in Iranian. The explanation of LAv. *kahrkāsa-* m. ‘vulture’ as ‘chicken-eater’ has a strong flavour of folk etymology and is almost certainly false. Sogd. *črks*, Oss. *cærgæs* ‘eagle’ show initial *č- and short -a- in the second syllable, which are incompatible with the Avestan word. I suspect that this is a borrowing, which may have been interpreted in some of the Iranian languages as if containing the word for ‘chicken’. The best candidates for Iranian cognates to Skt. *as^hi-* are MoP *ās* ‘food, soup’ < PIr. **āsja-*, Oss. *bas / basx* ‘soup’ < **upa-āsja-*, etc.
 Skt. *prasalavī* ‘to the right’; OP *frhrvm / fraharavam?* ‘all round’.
 Skt. *hirā-* f. ‘vein’; LAv. *zira-žan-* (Aogəmadaēcā 57) ‘striking the veins’ (?), cf. Humbach 1983: 120).
 The meaning of the Avestan compound remains hypothetical.
 Skt. *valkā-* m.n. ‘bark’, LAv. *varəka-* (Farhang-i-ōīm 8 = Kling. 395) m./n. ‘leaf’.

ABBREVIATIONS

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Av.	Avestan (i.e. both OAv. and LAv.)	OP	Old Persian
AVP	Atharva-Veda Paippalāda	Oss.	Ossetic
Bal.	Baluči	PGm.	Proto-Germanic
Br.	Brāhmaṇas	PIIr.	Proto-Indo-Iranian
FP	Finno-Permian	PIr.	Proto-Iranian
FU	Finno-Ugrian	PP	Proto-Permian
FV	Finno-Volgaic	RVKh	Rig-Veda-Khilāni
Gr.	Greek	ŚB	Śatapatha-Brāhmaṇa
IE	Indo-European	SCr.	Serbo-Croatian
Išk.	Iškašimi	Skt.	Sanskrit
Khot.	Khotanese	Sogd.	Sogdian
KS	Kāṭhaka-Saṃhitā	Sū.	Sūtras
LAv.	Late Avestan	Toch.	Tocharian
Lith.	Lithuanian	TB	Taittirīya-Brāhmaṇa
MiP	Middle Persian	TS	Taittirīya-Saṃhitā
MoP	Modern Persian	Up.	Upanishads
MS	Maitrāyaṇī-Saṃhitā	Vog.	Vogulian
OAv.	Old Avestan	VS	Vajasaneyī-Saṃhitā
OHG	Old High German	YV	Yajurveda

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