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## The Indo-Iranian word for ‘shank, shin’

ALEXANDER LUBOTSKY

Avestan acc.sg. *ascūm* ‘shank’ points to a thematic stem *ascuua-* < *\*ascīya-* and is cognate to Skt. *aṣṭhīvā(nt)-*, which means ‘shin, shank’ and not ‘knee-joint’. The Indo-Iranian word can be reconstructed as *\*HastčiHya-*. This is a compound of the word for ‘bone’ with a reflex of PIE *\*(s)kiHu-* ‘shin’ attested in Balto-Slavic, Germanic and, probably, Greek and Armenian.

*Ein Spielmann zog einst des Weges daher,  
Da sah er ein Knöchlein blitzen,  
Er hob es auf, als wär’s ein Rohr,  
Wollt’ sich eine Flöte d’raus schnitzen.*  
G. Mahler, ‘Das klagende Lied’

### 1. AVESTAN *ASCUUA-* ‘SHANK’

This Avestan word is attested as acc.sg. *ascūm* in two almost identical passages in the *Vīdēvdāt* (four times in *V* 8.63-65 and four times in *V* 9.23), in a description of the purification ritual, which is performed when a man or a woman has become impure by coming into contact with a dead body. After the necessary preparations, the priest pours water on the person’s forehead. Thereupon, Nasu, the female demon of death, moves to the place between the brows, and the priest pours water there. In this way, Nasu continually moves further down, springing from the front to the back and then again from the right to the left, until she disappears from the toes of the contaminated person, who is then pronounced to be purified. The *Vīdēvdāt* passages are important for determining the exact meaning of many body parts in Avestan, and this is also the case for *ascūm*.

Let us start our discussion at the point when Nasu sits at the person’s right *sraoni-* ‘buttock’ and then springs to the left buttock. When the priest pours water on the left buttock, Nasu moves to *haxti* acc. du. ‘pudenda’. In order to remove Nasu properly, the priest first pours water from behind and then at front, if the “patient” is a man, and the other way round, when it is a woman (which is perfectly understandable from the viewpoint of anatomy). It is important that, from this moment on, Nasu stays at the front-side of the legs and does not move backwards any more. Nasu escapes to the right and left *rānəm* ‘thigh’, to the right and left *žnūm* ‘knee’, and then to the right and left *ascūm*, which evidently must mean ‘shin, shank’<sup>1</sup>, rather than ‘calf of the leg’, preferred by Wolff in his translation<sup>2</sup>. At the final stages of the ritual, Nasu moves to the right and left *zanḡəm* ‘ankle’, to the right and left *frabdəm* ‘fore-foot’, then *adairi haxəm* ‘under the sole’. When the priest pours water on the right and left sole, Nasu flees to the right and left *anguštəm* ‘big toe’ and finally disappears.

Bartholomae assumed for *ascūm* an *u*-stem (*asčav-* in his notation), which has created a problem for the historical interpretation of this word. As a matter of fact, *c* can only be phonetically regular before a front vowel and there are hardly any forms in the inflection of the

<sup>1</sup> Thus already Geldner (1881: 576): “Schienbein”.

<sup>2</sup> Bartholomae gives both ‘Unterschenkel, Wade’ in the dictionary; Darmesteter translates ‘jambe’.

*u*-stems where palatalization would be operative. I therefore believe that Bartholomae's analysis of *ascūm* can be improved. As we can see from Avestan forms like *jūm* (acc.sg. of *juua-* < \**jūa-* 'alive'), *-ūm* can reflect PIIr. \**-i̯uam* through the stages \**-u̯uam* > \**-u̯uəm* > \**-u̯uum* > *-ūm*. Assuming the same origin for *ascūm*, we immediately get an explanation for its *c*: \**asci̯uam* > \**ascu̯uəm* > *ascūm*. In other words, *ascūm* points to a thematic stem *ascuua-* < \**asci̯ua-*.

There is one more indication for a thematic stem of *ascūm*. In *Yt* 17.22, we come across the adjective *huuascuuō* 'with beautiful shanks'<sup>3</sup>:

*srīrō ahi zaraθuštra, hukərətō ahi spitama, huuascuuō darəyō.bāzāuš*

You are handsome, o Zarathuštra, you are well-shaped, o Spitama, with beautiful shanks and long arms.

This adjective is thematic, and although Bartholomae postulated the stem *hv-asčav-* here, too, he remarked (s.v.): "Them.; auffällige Form, die einen AS. ir. \**čuuam* voraussetzt". If I understand this comment correctly, Bartholomae assumed that thematicization must have started from the accusative, which must then have had the form \**-cuuam* in Proto-Iranian. This observation comes close to the solution advocated here, but there is no need to assume an athematic stem at any point.<sup>4</sup>

## 2. SKT. *AṢṬHĪVĀ(NT)*- 'SHANK, SHIN'

2.1. Skt. *aṣṭhīvā(nt)*- is generally glossed 'knee(-joint)', but this translation is wrong. The analysis of the passages clearly shows that *aṣṭhīvā(nt)*- rather refers to a part of the leg between the knee and the ankle, i.e., a shank, shin-bone. The word is almost always used next to *ūrú-* 'thigh' in the texts, and it is *a priori* more probable that the pair *ūrú-* + *aṣṭhīvā(nt)*- denote two major parts of the leg. The close connection between the two terms further follows from the dvandva-compound *ūrvaṣṭhīvā-*, which contains the stem *°aṣṭhīvā-*. The meaning of the compound clearly emerges from a few passages in the ŚB and JB, where *ūrvaṣṭhīvā-* is used in the plural, cf.

ŚB 8.3.4.5

*saptā vā imé paścāt prāṇās: catvāry ūrvaṣṭhīvāni, dvé pratiṣṭhé, yád ávān nābhes tát saptamám*

There are seven vital airs here behind: the four thighs and shanks, the two feet, and what is below the navel – that is the seventh.

Eggeling here translates *ūrvaṣṭhīvāni* as 'thighs and knee-bones', but in a parallel passage 8.4.3.11 (*dāśa pādya āṅgūlayaś catvāry ūrvaṣṭhīvāni dvé pratiṣṭhé yád ávān nābhes tát saptadaśam* 'the ten toes, the four thighs and shanks, the two foot-soles, and what is below the navel that is the seventeenth') he opts for 'thighs and shanks', which is evidently the correct rendering of the word. The author of the text enumerates the parts of the body below the middle, and if we translate *ūrvaṣṭhīvāni* as 'thighs and knee-bones', we simply miss the shanks. The JB 1.251 and 257 passages are very similar.

<sup>3</sup> Lommel (1927: 162) translates "schöne Waden hast du", but in a footnote he writes: "Unterschenkel".

<sup>4</sup> There are no clear cognates of Av. *ascuua-* 'shank' in other Iranian languages. Abaev III: 119 reconstructs PIIr. \**asku-* for Ossetic (Iron) (æ)sk<sup>w</sup>y 'haunch (as food)' (in Miller-Frejman 1080, this word is given as *sgy* 'bedrennaja kost' [thigh-bone]) and connects it with Av. *ascuua-*. First of all, the reconstruction \**asku-* is impossible. Since final *-u-* disappears in Ossetic, the Iranian proto-form must be either \*(a)skuyV-, or \**sku-*. Secondly, the cluster \**-sč-* does not normally yield *-sk-* in Ossetic (cf. Oss. *fæstæ* 'later', Av. *pasca* 'after'). Also the meanings are sufficiently different that I am reluctant to accept this etymology. The meaning and the very existence of Khwar. 'sk 'Fußknöchel' (Benzing 1983: 85) are too uncertain to be used for etymological purposes (MacKenzie 1990: 104 reconstructs \**astakā*).

The compound *ūrvaṣṭhīvé* (du.) is further attested in a mantra, found with some variants in *VS* 18.23, *MS* 2.11.6 (143:13), *KS* 28.11 (273:11), *KapKS* (28.9), but its meaning cannot be determined from the context. I here give the *VS* text:

VS 18.23

*vratām ca ma ṛtāvaś ca me tāpaś ca me saṃvatsarāś ca me 'horātré ūrvaṣṭhīvé bṛhadrathantaré ca me yajñēna kalpantām*

Let my vow and my seasons, my austerity and my year, my day and night, thighs and shanks, Bṛhad and Rathantara, be put in order through the sacrifice.

2.2. The stem *°aṣṭhīva-* is further found in two compounds, mentioned by the grammarians. Pāṇini (5.4.77) gives the compound *pad-aṣṭhīva-*, traditionally translated ‘feet and knees’, which is a remarkable combination, whereas ‘feet and shanks’ (i.e. the leg up to the knee) gives perfect sense. Yāska (*Nir.*) refers to a grammarian called Sthaulāṣṭhīvi-, whose name presupposes a compound *\*sthūlāṣṭhīva-* ‘with steady shanks’ (cf. Debrunner 1957: 31).

2.3. In the simplex we invariably find the *nt*-stem *aṣṭhīvánt-*, which is rather frequent, but not all contexts are diagnostic for the meaning. I here give a selection of the most transparent passages.

RV 10.163.4 (≈ AVŚ 2.33.5, 20.96.21 ≈ AVP 4.7.6)

*ūrúbhyām te aṣṭhīvadbhyām pârṣṇibhyām prâpadâbhyâm /  
yâkṣmaṁ śrônibhyâm bhâsadâd bhâmsaso ví vṛhâmi te //*

I tear out the *yakṣma*-disease from your thighs, from the shanks, from the heels, from the fore-feet, from the buttocks, from the pudenda-region (?), from the anus (?).

It is clear that in this list of body parts below the middle, the shanks would be absent if *aṣṭhīvadbhyām* referred to knee-joints.

RV 7.50.2

*yâd vijâman pâruṣi vândanam bhûvad aṣṭhīvântau pâri kulphaû ca déhat /  
agnîṣ tât chócann âpa bādhatâm itó mâ mām pâdyena râpasâ vidat tsâruḥ //*

Whatever “rash” will come on the double joint (i.e. ankle-joint), covering the shanks and ankle-bones, let the burning Agni expel it from here: may the creeping [plant] not hit me with the foot ailment!

Since *aṣṭhīvântau* is usually translated as ‘knee-joints’ or ‘knee-caps’, *vijâman pâruṣi* is then interpreted as two joints, viz. an ankle joint and a knee joint<sup>5</sup>. This interpretation is improbable, however. A ‘twin-joint, double joint’ does not mean ‘two joints’, but no doubt refers to the ankle-joint, which is “double” since the leg between the ankle and knee consists of two bones, viz., fibula and tibia.

AVŚ 10.9.19-23 (≈ AVP 16.137.9-10, 138.1-3)

19	<i>yaû te bāhû yé doṣānī</i>	<i>yāv âmsau yâ ca te kakûit /</i>
	<i>āmīkṣām duhratām dātré</i>	<i>ksīrām sarpīr átho mādhu //</i>
20	<i>yās te grīvā yé skandhā</i>	<i>yāḥ prṣṭīr yās ca pârsavaḥ /</i>
	<i>āmīkṣām, etc.</i>	
21	<i>yaû ta urû aṣṭhīvântau</i>	<i>yé śrônī yâ ca te bhasât /</i>
	<i>āmīkṣām, etc.</i>	

<sup>5</sup> For instance, Geldner translates “Zwillingsgelenk”, but comments ad loc.: “*vijâman pâruṣi* wird durch die Duale in *b* erlautert”.

- 22 *yát te púcchaṃ yé te bālā* *yád údho yé ca te stánāḥ /*  
*āmikṣām, etc.*  
 23 *yás te jánghāḥ yāḥ kúṣṭhikā* *ṛcchārā yé ca te śaphāḥ /*  
*āmikṣām, etc.*

What shins are yours (scil. of the cow), what shoulders, what shoulder-blades and what your withers – let them yield to your giver curd, milk, butter, and also honey. What neck-bones are yours, what shoulder-bones, what side-bones, what ribs [– let them, etc.]. What haunches are yours, what shanks, what hips, and what your genitals [– let them, etc.]. What tail is yours, what tuft, what udder, and what your teats [– let them, etc.]. What ankles of yours, what dew-claws, pasterns, and what your hoofs [– let them, etc.].

AVŚ 9.7.7-10 (≈ AVP 16.139.7-11)

- 7 *mitrás ca váruṇas cāṃsau, tváṣṭā cāryamā ca doṣānī, mahādevó bāhū,*  
 8 *indrāñī bhasád, vāyúḥ púcchaṃ, pávamāno bālāḥ,*  
 9 *bráhma ca kṣatrām ca śróṇī, bálam ūrū,*  
 10 *dhātā ca savitā cāṣṭhīvántau, jánghā gandharvā, apsarásaḥ kúṣṭhikā, áditih śaphāḥ.*

His two shoulder-blades (scil. of the ox) are Mitra and Varuṇa, his shoulders are Tvaṣṭar and Aryaman, his shins are Mahādeva (Śiva), his genitals are Indrāñī, his tail is Vāyu, his tuft is Soma. His hips are the Brāhmaṇa and the Kṣatriya, his haunches are Bala (force). His shanks are Dhātār and Savitar, his [four] ankles are the Gandharvas, his [four] dew-claws are the Apsarases, his [four] hoofs are Aditi.

In these two AVŚ passages where the limbs of a bovine are enumerated, the order is slightly different, which is due to the metrical demands of 10.9. In both passages, the description begins from the front of the animal. In 9.7, which is in prose, the list starts above, with the shoulders, and then goes down: the part between the shoulders and the knees (*doṣān-*), then the part between the knee and the hoof (*bāhú-*). In 10.9, the order of *doṣān-* and *bāhú-* is the opposite, no doubt for metrical reasons. At the back, 9.7 gives the thighs, shanks, ankles, dew-claws, hoofs, i.e. again a top-to-bottom description, but in 10.9 the terms are presented in a mixed order.

These passages make further clear that *bāhú-* refers to the shin of the front leg of a bovine, whereas *aṣṭhīvánt-* is the shank of the hind leg.

AVŚ 10.2.2 = AVP 16.59.2

- kásmān nú gulphāṇ ādharāv akṣṇvann* *aṣṭhīvántāv úttarau pūruṣasya /*  
*jānghe nirṛtya ny ādadahuḥ kṛvā svij* *jānunoḥ saṃdhī́ ká u tác ciketa //*

From what did they make a man's two ankle-bones below, his two shanks above? Where indeed did they set them in, disjoining the ankles? The two knee-joints -- who understands that?

Whitney translates *aṣṭhīvántau* with 'knee-joints', which cannot be correct, since in the same stanza we find *jānunoḥ saṃdhī́*, the real knee-joints. 'Disjoining the ankles' (*jānghe nirṛtya*) again refers to the "double" joint of the ankle.

TB 3.7.12.2

- tásmāt tvám asmān jātavedo mumugdhi / yád vācā yán manasā / bāhúbhyām ūrúbhyām aṣṭhīvadbhyām //*  
 ... Release us from that [transgression], o Jātavedas, which [we have done] with the voice, with the mind, with arms, with thighs, with shanks.

ŚB 13.8.3.11

- tád vai ná mahát kuryāt. nén mahád aghām karāvāñīti. yāvān údbāhuḥ pūruṣas távat kṣatríyasya kuryān*  
*mukhadaghnām brāhmaṇasyopasthadaghnām striyā ūrudaghnām vaiśyasyaṣṭhīvad-daghnām*  
*śūdrasyaivámvyrā hy étá iti*

Let him not make it (the sepulchral mound) too large, lest he make the (deceased's) sin large. For a Kshatriya he may make it as high as a man with outstretched arms, for a Brāhmaṇa reaching up to the

mouth, for a woman up to the hips, for a Vaiśya up to the thighs, for a Śūdra up to the knee; for suchlike is their vigour. (Eggeling)

The problem with Eggeling’s rendering of the compound *aṣṭhīvaddaghná-* as ‘reaching up to the knee’ is that this notion is expressed in the *ŚB* by *jānudaghná-*, attested several times. The compounds *upasthadaghná-*, *ūrudaghná-*, *aṣṭhīvaddaghná-* of the passage are of course nonce formations, built in parallel to *mukhadaghná-*.

2.4. Which of the two forms, viz. *°aṣṭhīvá-* and *aṣṭhīvánt-*, is older? The former is only attested as a second member of compounds, whereas the latter is only found as a simplex. Wackernagel and Debrunner (*AiGr.* II,1: 97, II,2: 868, III: 324) clearly opt for an original *nt-* stem, but their examples for *-a-* replacing older *-ant-* are sparse: the only case from older Vedic is *AVŚ 5.19.2 ubhayā-dam*, supposedly acc.sg. of *ubhayā-dant-* ‘with incisors in both jaws’.<sup>6</sup> As Whitney indicated in notes to his translation and in the Index Verborum, the passage requires a nom.sg., however, so that he emended the text to *\*ubhayādann*, following the earlier scholarship (Zimmer, Muir, Grill and Bloomfield), cf.

*pétvas<sup>7</sup> téṣām \*ubhayādann ávis tokāṇy āvayat*  
...a wether with incisors in both jaws consumed their offspring.

A wether is a ruminant and does not have two rows of incisors, which stresses the idea of an ominous destruction of the oppressors. The emendation is now confirmed by the *AVP(O)* reading (9.18.8cd *yetvas teṣām ubhayādann avis tokāṇy āvayat*).

Since there are no Vedic parallels for *-a-* replacing original *-ant-*, I prefer to consider *aṣṭhīvá-* the older form. The secondary *nt-* stem may have arisen along the following lines. The accented suffix *-vá-* enjoyed certain productivity in Vedic, deriving denominal adjectives with the meaning ‘containing X in high degree’,<sup>8</sup> cf. *añjivá-* ‘slippery’ (*añji-* ‘ointment’), *arṇavá-* ‘foaming, agitated’ (*árṇa(s)-* ‘flood, wave’), *keśavá-* ‘long-haired’ (*kéśa-* ‘hair of the head’), *śraddhivá-* ‘trustworthy’ (*śraddhā-* ‘trust’), etc. It is then only to be expected that *aṣṭhīvá-* has been reanalysed as ‘very bony’ vel sim. with a folk-etymological connection with *ásthi-* ‘bone’.<sup>9</sup> The shank is not ‘very bony’, however, but simply ‘containing a (protruding) bone’, which triggered the replacement of *-vá-* by *-vánt-* on a model of the pairs like AV+ *keśavá-* ‘long-haired’ : RV+ *keśavánt-* ‘with a mane’. The suffix *-vant-* was very productive in Sanskrit and often replaced *-van-* and *-vāms-* (cf. Wackernagel – Debrunner *AiGr.* II,2: 893).<sup>10</sup> Thus, the original form is only preserved in the old compound *ūrvaṣṭhīvá-*.

2.5. In the literature, Skt. *aṣṭhīvánt-* is often connected with *°aṣṭhīlā-*, the meaning of which is rather uncertain. It is attested in two compounds, viz. *ŚB 10.3.4.3,5 arkāṣṭhīlā-* and *KS 37.14:94.6, JB 3.260 madhvaṣṭhīlā-*. In the *ŚB*, this word occurs in a dialogue between Uddālaka Āruṇi, the father of Śvetaketu, and the Brāhmaṇa Vaiśvāsavya. The former asks the Brāhmaṇa about the meaning of the plant Arka (probably *Calotropis gigantea*) and its parts. When Vaiśvāsavya admits his ignorance, Uddālaka explains that Arka is a man, and the parts of the plant are identified with parts of a man’s face. What part of the plant is *°aṣṭhīlā-*, which is identified with the tongue, is unclear. Eggeling translates ‘bulge’ in accordance with the meaning

<sup>6</sup> For the meaning see Macdonell – Keith 1912, s.v.

<sup>7</sup> For *pétva-* see Wackernagel – Debrunner *AiGr.* II,2: 712.

<sup>8</sup> Imprecise Wackernagel – Debrunner (*AiGr.* II,2 : 868): “damit versehen”.

<sup>9</sup> Possibly, the word *aṣṭhi-* ‘kernel of a fruit’, given by the lexicographers, is due to the same reanalysis.

<sup>10</sup> The forms which ended in *\*-uās* in the nominative were often reinterpreted as containing the suffix *-vant-* (cf. also Wackernagel – Debrunner *AiGr.* III: 287).

given by *PW*, viz. ‘runde kuchenförmig verdickte Narbe’. Sāyaṇa glosses the word with *arkakośamadhye vistareṇa vartamānā tūlī* ‘a tuft growing at length in the middle of the Arkabud’. At any rate, *°aṣṭhīlā-* is likely to be sweet, since the *tertium comparationis* with the tongue is presumably its common epithet *mādhumant-*.

The compound *madhvaṣṭhīlā-* has been discussed in two articles by Karl Hoffmann (1960: 35f = 1975: 111f, 1970: 59f = 1976: 516f) in connection with the *JB* 3.260 passage, where it is told how the world had emerged from an egg. First, there was non-existence (*asat*). Then, the *ṛta*, *satya* and *tapas* gave rise to One (*eka*), which swelled with light. The text then says: *tad abhavat yathā madhvaṣṭhīlā vā svāsiktā syād [d]ṛtir vaivam*<sup>11</sup> ‘It (One) became like a well-filled *madhvaṣṭhīlā* or like a leather bag’. In an earlier article, Hoffmann followed the rendering of *pw*, which gives ‘Honigklumpen’, but later he opted for ‘Wabennest’ (a honeycomb of wild bees), especially in view of the second occurrence of the word at *KS* 37.14. The passage is a story how Indra stole the *amṛta* from the demon Śuṣṇa. Indra conceived of an ingenious plan: *sa madhvaṣṭhīlā bhūtvā prapathe ’śayat. tām śuṣṇo ’bhi vyādadāt. tasyendraś śyeno bhūtvāsyād amṛtaṃ nir amathnāt* ‘He (Indra), having become a *madhvaṣṭhīlā*, lay on a road. Śuṣṇa opened [his mouth] for swallowing it. Indra, having become a falcon, stole the *amṛta* from his mouth.’

In the *MBh.*, we find *aṣṭhīlā-* in the meaning ‘round pebble, stone’ and in the medical texts the word denotes a particular kind of swelling (also *vātāṣṭhīlā-*). Hoffmann assumed that the original meaning of *aṣṭhīlā-* is ‘Kugelförmiges’ and that this word is etymologically related to *aṣṭhīvā(nt)-* (1956: 16 = 1976: 396), but I am afraid that both assumptions are wrong. ‘Kugelförmiges’ is probably not the original meaning, but a motive for metonymic usage of the word. The original meaning of *aṣṭhīlā-* could have been ‘honey-comb (of wild bees)’ or a kind of bag. It then can easily be associated with a sweet part of a plant (ŚB *arkāṣṭhīlā-*), with a particular kind of swelling or with a round stone. Most likely, *aṣṭhīlā-* is a borrowing from a non-IE language. Hoffmann has considered etymological relationship between *aṣṭhīlā-* and *aṣṭhīvā(nt)-* only because he took the latter to mean ‘knee-cap’ and assumed the round shape to be a common denominator. Now that we know that *aṣṭhīvā(nt)-* means ‘shin’, this semantic justification evaporates, and also the etymological connection becomes improbable.

Nevertheless, I believe that *aṣṭhīlā-* has played an important role in the history of *aṣṭhīvā(nt)-*. As a matter of fact, *aṣṭhīvā(nt)-* dies out after the Brāhmaṇas, its place being taken by *jāṅghā-*, originally ‘ankle’. Accordingly, Indian commentators like Sāyaṇa did not know the exact meaning of *aṣṭhīvā(nt)-* anymore, although they of course understood that the word must refer to a part of the leg near the thigh. The commentators did know *aṣṭhīlā-*, however, and they conjectured that *aṣṭhīlā-* (as they analysed the word) must have something to do with it, being of a round shape. In this way, they may have arrived at the meaning ‘knee-cap’, which we find in the commentaries and which has entered all our dictionaries.

### 3. ETYMOLOGY

Neither Skt. *aṣṭhīvā(nt)-*, nor Avestan *ascuua-* has an etymology, and, to my knowledge, they were never connected with each other because the Sanskrit word was booked with a wrong meaning and the Avestan word was booked with a wrong stem. Although the two words are evidently related, the medial cluster requires further elucidation.

<sup>11</sup> For the reconstruction and analysis of the passage I refer to Hoffmann’s articles.

The only etymological suggestion we find in our dictionaries with respect to these Indo-Iranian forms is that they have something to do with the word for ‘bone’, viz., Skt. *ásthi-*, Av. *ast-*. I think that this view is correct, i.e., the Indo-Iranian word for ‘shin, shank’ must be a compound with ‘bone’ as its first member, but what was its second member? If we look at various Indo-European words for ‘shin, shank’, we notice that they are often identical with the word for ‘pipe, flute, hollow stalk’; cf. Lat. *tibia* ‘shin-bone, flute’, Russ. *cévka* ‘shin(-bone) of a horse, bobbin’, German *Schiene* ‘shin, rail’, etc. Obviously, the hollow shin-bone<sup>12</sup> was used for making flutes and other implements (e.g. bobbin) in and around the house. It seems therefore reasonable to assume that the Indo-Iranian word for ‘shin-bone’ was a compound of ‘bone’ + ‘pipe’. In other words, the original meaning of the compound was ‘bone-pipe’, which then was used for the shin-bone. For a parallel, cf. MW *ascwrn*, MB *ascorn* ‘bone’ < \**astH* ‘bone’ + *kornV-* ‘horn’ (Schrijver 1995: 53) and Dutch *ellepijp* ‘ulna’, lit. ‘elbow-pipe’.

It seems probable to me that the second member of the Indo-Iranian compound was \*(s)čiH<sub>ua</sub>-, closely related to the Slavic words for ‘shin-bone, flute, bobbin’, cf. Russ. *cévka* ‘shin(-bone) of a horse, bobbin’, *cev’ě* ‘handle, shin’, SCr. *cǐjev* f. ‘pipe, barrel (of a gun), bobbin, shin-bone’, *cǐjevka* ‘a small pipe’, *cjevànica* ‘shank’ (OCS *čěvǎnica* ‘λύρα’, Russ. *cevnica* ‘flute’). These forms point to PSl. \**cěvь* (c), but beside the *i*-stem, we also find an *ā*-stem in Czech *céva* ‘reed, tube’, Slovak *cieva* ‘vein’ < PSl. \**cěvā* (b). The two stems are also attested in Baltic, viz. Lith. *šeivà* (2/4), *šaivà* (4) ‘bobbin’, Latv. *saiva*<sup>13</sup> ‘bobbin’, next to Lith. *šeivikaulis* ‘fibula’. The Balto-Slavic word has mobile accentuation, which at first sight is difficult to reconcile with the laryngeal in the root, necessary to account for the long *ī* in Skt. *aṣṭhīvā-*. The co-occurrence of *i*- and *ā*-stems in Balto-Slavic usually points to a consonant stem, however (cf. Kortlandt 1985: 118), so that we can reconstruct \**koi(H)u-*/\**koi(H)u-*. An original *u*-stem is also easier to link with ablaut in the root.

The “Gutturalwechsel” in this Balto-Slavic word family has been ascribed by Kortlandt (1978: 238) to *s*-mobile, and indeed in Germanic we find forms with initial *s*-; cf. especially OE *scīa* ‘shin, leg’, which may reflect \**skīyo-*.<sup>14</sup> In Germanic etymological dictionaries, this word is usually connected with WGM. \**skinō* ‘shin’ (OE *scinu* f., OHG *skina*, *skena*, etc.) with a reference to the word for ‘bee’, where we find a similar interplay of the suffixes *-u-* and *-n-*, cf. OE *bēo* f. ‘bee’ (Napl. *bēon*, dpl. *bēo(u)m*), OS *bī*, OHG *bīa*, Olc. *bý* next to OS and OHG *bini* n., OHG *bīan* m., *bīna* f. Nevertheless, the relationship between the two Germanic words \**skīyo-* and \**skinō* remains unclear to me, and for the moment I would prefer to tentatively leave \**skinō* out of consideration.<sup>15</sup> The usual derivation of the Balto-Slavic and Germanic words from the verbal root \**skei(H)-* ‘to cut’ is possible, but by no means compelling.

Let us now return to the Indo-Iranian compound. Assuming that the second member was \*(s)kiH<sub>uo</sub>-, we arrive at the Proto-Indo-Iranian compound \**Hast-(s)kiH<sub>ua</sub>-*, which yields \**Hast(s)čiH<sub>ua</sub>-* after palatalization. It is hard to figure out what would be the phonetically regular development of the Indo-Iranian cluster \**-st(s)č-*. In Lubotsky 2001 I argue that Skt.

<sup>12</sup> Normally of animals, but considering the fairy-tale ‘Der singende Knochen’ from the collection by the Grimm brothers, elements of which were used by Gustav Mahler for his ‘Das klagende Lied’, we can assume that the human shin-bone is likewise suitable for this purpose.

<sup>13</sup> Dr. R. Derksen points out to me that the joint evidence of the dialect forms *saiva/saive* (West), *saiva/saive* (East) points to an original falling intonation, so that the sparsely attested *saiva/saive* must be secondary.

<sup>14</sup> The formation and inflectional class of this noun are unclear; Brunner (1965: 114) gives the following attested forms: nom.sg. *scīa* (Erf., Corp.), pl. (North.) *scīu* L, *scīa*, *scīe* R<sup>2</sup>.

<sup>15</sup> If the root contained a laryngeal, the short vowel of PGM. \**skinō* may be due to pretonic shortening (Dybo), similar to that in PGM. \**sunu-* (Goth. *sunus*) < \**suHnú-* (Skt. *sūnú-*).



*paścā*, Av. *pasca* ‘after’, Oss. *fæstæ* ‘later’ reflect PIIr. *\*pas(t)-sčā* < PIE *\*pos(t)-sk<sup>w</sup>eh<sub>1</sub>*. We may conclude that the regular reflex of the cluster *\*(s)tšč-* was Skt. *-śc-*, so that it is more probable that the second member of our compound did not have an initial *s-*. It cannot be excluded, however, that the Sanskrit word was influenced by *ásthi-* ‘bone’ at some stage.

We learn from Skt. *kṣinanti* ‘to destroy’ < PIE *\*d<sup>h</sup>g<sup>wh</sup>i-* (cf. Gr. φθίω), that *\*d<sup>h</sup>j<sup>h</sup>* developed into Skt. *kṣ*, probably through the stages *\*d<sup>h</sup>ǵ<sup>h</sup> > \*t<sub>s</sub> > kṣ*. It is therefore likely that *\*tč* at some point also yielded *\*t<sub>s</sub>*. We then arrive at the following possible chain of events: *\*HastčiHua-* > *\*HastšiHua-* > *\*HaštšiHua-* > *ašt<sup>h</sup>ivá-*. A disappearing sibilant (*s ś ṣ*) of the original cluster yields aspiration in Sanskrit, cf. *kṣā-* ‘to look, observe’ > *khyā-*, *\*śc > ch*, etc. For a parallel I refer to Middle Indic, where the original consonant clusters *ps*, *ts*, *psy*, *tsy*, *śc*, *kṣ* yielded *ch*. The development PIIr. *\*HastčiHua-* > *\*(H)asčīua-* > Av. *ascuua-* is straightforward.

#### ADDENDA

1. As Dr. K. Praust has suggested to me, Gr. κίον ‘pillar’ and Arm. *siwn* ‘id.’ are likely to be related to our word for ‘shin’. We know from Myc. *ki-wo* that the Greek word must go back to *\*kīuōn* < *\*kiHuōn*, which can be a proto-form of Arm. *siwn*, too. I do not see any semantic problems either. For instance, one of the meanings of Eng. *shank* is ‘a shaft of a column’, Latv. *stulps* means both ‘post, pole’ and ‘shank’, OE *scīa* ‘shin, leg’ is related to MHG *schīe* ‘post’, etc.

2. PIE *\*kiHu-* ‘shin’ possibly goes back to Nostratic, cf. Proto-Uralic *\*c’äje-r3* ‘Stiel, Schaft; Schienbein, Unterarm’ (UEW, no. 612) and Proto-Altaic *\*siṇu* or *\*šṇu* ‘bone, shin-bone’, reconstructed by Sergei Starostin on the basis of Proto-Turcic *\*siṇök*, Mongolian *\*siya* and Proto-Japanese *\*sūnài* (“Altaic etymological database” at the Internet-site [starling.rinet.ru](http://starling.rinet.ru)).

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