šc; so also OP *avašciy* from earlier *avad-cid, OP *aniyašciy* from earlier *aṇiad-cid.

§106. pIE *r* remained unchanged in most IE languages, down into the recorded forms of the languages; exceptional combinations in which it suffered change in OP, are mentioned below.

pIE **rēḱto-* 'directed', OP *rāsta-* 'straight', Av. *rāšta-* 'upright', Lt. *rēcto-*.

pIE *pro, OP *fra-* (in cpds.), Av. *frā*, Skt. *pra*, Gk. πρό.

pIE *enter 'inside', OP *aⁿtar*, Av. *antarə*, Skt. *antár*, Lt. *inter*.

pIE **su-preḱ-to-*, OP *ufrašta-* 'well punished', cf. Skt. *pṛcchā́mi* 'I ask', Lt. *precor* 'I ask'.

pIE *proterom, OP *frataram*, Skt. *pratarám*, Gk. πρότερον.

pIE root **dhreugh-* in OP *drauga-* 'the Lie', Skt. *drúhyati* 'he deceives', Gm. *trügen* 'to deceive'.

pIE **mortiịo-*, OP *martiya-* 'man', Skt. *mártya-*, cf. Lt. *mortālis*.

pIE *ebheront 'they bore', OP *abaraⁿ*, Skt. *ábharan*, cf. Lt. *ferō*.

OP *r* may come also from pIE *ṛ* *ṝ* (§66, §68, cf. §§30–35), and from pIE *l* *ḷ* *ḹ* (§107, §66, §68); but there are many ambiguities, since pIE *r* and pIE *l* can be distinguished only if we have a cognate outside the Aryan branch of IE. It is also difficult in many instances, to distinguish the original vocalic *r* and *l* from the original consonantal *r* and *l* (§30–§35).

For OP developments of pAr. *tr*, see §§78–9; of pAr. *sr*, see §118.II. In borrowed names of persons and places, *r* is of frequent occurrence; e.g. *Aθurā* 'Assyria', *Arabāya* 'Arabia', *Ufrātu-* 'Euphrates', *Armina* 'Armenia', *Karkā* 'Carians', in which the forms in other languages assure the *r* as original at the time of borrowing.

§107. pIE *l* became pAr. *r*, and therefore was indistinguishable from pIE *r* in the Aryan languages, unless a cognate from another IE branch can be adduced.

pIE **solịo-* 'all', OP *haruva-*, Av. *haurva-*, Skt. *sárva-*, Gk. Ion. οὖλος, Att. ὅλος.

pIE **pəlu-*, OP *paru-*, Skt. *purú-*, Gk. πολυ-.

pIE *leuqos, OP *rauca*, Skt. *rócas*, cf. Gk. λευκός 'white'.

pIE *sụel-nos, OP *-farna* in *Viⁿda-farnā*, Av. *xᵛarənō* 'royal splendor', cf. Gk. σέλας 'brightness' from *sụel-ṇs.

pIE **qᵘel-* in OP *car-* in *abicariš* 'pasture land', cf. Skt. *cárati* 'he goes', Lt. *colit* 'he tills'. Also *l* or *ḷ* in OP *Varkāna-*, *Varkazana-* (see Lex.), *ḷ* in *darga-* (§68).

In borrowings, an original *l* became OP *r* if the words were really assimilated into the OP; thus *Arbairā-* 'Arbela' = Akk. *ar-ba-'-il*; *Tigrā-* 'Tigris' = Akk. *di-iq-lat*; *Nadiⁿtabaira-* 'Nidintu-Bel' = Akk. *ni-din-tú-ⁱˡᵘbēl*; *Bābiru-* 'Babylon' = Akk. *bab-ilu*. In others that received less use, the *l* remained: *Haldita-* an Armenian, *Labanāna-* 'Mt. Lebanon', *Dubāla-* a district in Babylonia, and *Izalā-* a district in Assyria.

For the development of pIE *tl*, see §78; for pIE *ḱl*, §94; for pIE *l*, §66; for pIE *ḷ*, §68.

§108. The pIE Nasals in general remained unchanged in the various IE languages, except that they changed to agree with the position of a following stop or spirant; but this shift is hardly evidenced in OP, since nasals before homorganic stops or spirants[1] were not written in the OP syllabary (§39).

§109. pIE *m* remained *m*, in general, in all the languages.

pIE *mā 'not', OP *mā*, Skt. *mā́*, Gk. μή.

pIE *moi 'of or to me', OP *maiy*, Skt. *me*, Gk. μοι.

pIE **mṛto-* 'dead', OP *marta*, Skt. *mṛtá-*, Lt. *mort-uos*.

pIE **somo-* 'same', OP *hama-*, Skt. *samá-*, Gk. ὁμός.

pIE *nōmṇ 'name', OP *nāmā*, Skt. *nā́ma*, Lt. *nōmen*.

pIE *eĝhom 'I', OP *adam*, Skt. *ahám*, cf. Gk. ἐγών.

OP *m* remains before *n* and final, and before enclitics: *kamnam*, *jiyamnam*, acc. *nāham*, *adam-šim*, *avākaram-ca-maiy*, *paruvam-ciy*. On [*nᵃyā*]-*kama* =]*kam-ma*, see §130. On pIE *ṃ*, see §67; on pIE *m̥̄*, §68: on failure to write *m* before stops and spirants, §111.

M occurs in non-Iranian proper names and in *maškā-* 'inflated skin', from Aramaic.

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[1] In pIr., nasals before spirants were reduced to a mere nasalization of the preceding vowel (so also in Indic, cf. Wackernagel, Altindische Grammatik 1.§224); the OP writing fails to show whether the nasalization persisted in OP (as it did in Av.) or was entirely lost. Thus OP *aθaha* may agree with Skt. *aśqsat* in having a nasalized vowel, or may be from a form of the root lacking the nasal; cf. ref. in Lex. s.v. *θah-*.

§110. pIE *n* remained *n*, in general, in OP, Av., Skt., Gk., Lt.

pIE **nās-* 'nose', OP acc. *nāham*, Skt. *nās-*, Eng. *nose*.

pIE **nepōt-s* 'grandson', OP nom. *napā*, Skt. *nápāt*, Lt. *nepōs*.

pIE **nōmṇ* 'name', OP *nāmā*, Skt. *nā́ma*, Lt. *nōmen*.

pIE **ĝnōsḱēti* 3d sg. subj., OP *xšnāsātiy*, Lt. fut. *(g)nōscet*.

pIE **eguhen-ṃ*, OP *ajanam* 'I smote', Skt. *áhanam*, cf. Lt. *dē-fen-dō*.

OP *n* was of frequent occurrence in personal and place names, some at least being non-Iranian. For *n* before stop or spirant, see §111; for *n* final, see §112. For pIE *ṇ*, see §67; for pIE *n̄*, §68. For *nị*, written *niy*, §25; for *nṷ*, written *nuv*, §26.

§111. OP Unwritten Medial Nasals. OP nasals were not expressed in writing before stops and spirants (except *m* before enclitics, §39), but the presence of the sounds is indicated by the transliterations into other languages, or by the evidence of etymological comparisons.

Kaᵐpaⁿda a district in Media, Elam. *qa-um-pan-taš*.

Kaᵐbūjiya 'Cambyses', Elam. *kan-bu-ši-ịa*, Akk. *kam-bu-zi-ịa*.

Viⁿdafarnā 'Intaphernes', Elam. *mi-in-da-par-na*.

Skuⁿxa a Scythian rebel, Elam. *iš-ku-in-qa*.

Hiⁿduš 'Sind', Elam. *hi-in-du-iš*, Av. *Hindu-*, Skt. *síndhu-*.

aθaⁿga- 'stone', Av. *asəuga-*.

baⁿdaka 'servant', Phl. *bandak*, NPers. *bāndāh*.

aⁿtar 'inside', Skt. *antár*, Lt. *inter*.

§112. OP Final *n*. OP *n* was not written when final: loc. **nōmen*, OP *nāma* (see Lex. s.v.); 3d pl. imf. **ebheuont*, OP *abava*, Skt. *ábhavan*. On *abaran* miswritten for *abaraha*, see §54.I.

§113. pIE *ị* appears unchanged in OP, as well as in Skt., when initial and intervocalic; but in Av. it is subject to many graphic alterations:

OP *yaθā*, Skt. *yáthā*.

OP *yadataiy* 'he worships', Skt. *yájate*, Gk. ἅζεται (pIE *ị- > Gk. *h-*).

OP *dārayatiy* 'he holds', Skt. *dhāráyati*.

OP *vayam* 'we', Skt. *vayám*.

OP *draya* 'sea', Av. *zrayō*, Skt. *jráyas-*.

After consonants also, pIE *ị* remains unchanged in OP and in Skt., but it is regularly written *-iy-* (§25):

root *kan-* 'dig' + pass. *-ya-*, in *akaniya* 'was dug'.

*duš- 'ill' + **yār-* 'year', in *dušiyāram* 'famine'.

wāmaršiyuš nsm. 'by self-death', Skt. *mṛtyú-š* 'death', cf. *-tiịo-* in OP *martiya* 'man'.

adurujiya 'he lied', cf. *drauga* 'the Lie'.

ašiyava 'he went forth', Skt. (mid.) *ácyavata*.

Note pAr. *kị* > pAr. *ćị* > OP *šy*, §104; pAr. *tị* > pIr. *θị* > OP *šy*, §80. OP *Maciya-* to the province-name *Maka* must be for **makiịos*, or a late formation in which **makiịos* did not make the second phonetic change; similarly *Ākaufaciyā* to **Ākaufaka*.

But *hy* was normally written *hy* and not *hiy*, §27; on *tya*, with retention of *t* and failure to write *tiya*, see Lex. s.v.

At the end of a word, *y* was added in OP to a final *i*: thus OP *pariy*, Skt. *pári*, Gk. περί; OP *ciy*, Skt. *cid*, Lt. *quid* (§37; §84 for failure to write final *d* in OP); OP encl. *-maiy*, Skt. *me*, Gk. μοι.

Occasionally medial *-ay-* was written *-aiy-*; see §48. Very rarely *-i-yᵃ-* = *-iy-* was used to indicate length of *ī*, see §23.

§114. pIE *ṷ* appears unchanged in OP and in Skt., while in Av. there are numerous changes, essentially only graphic: OP *v* was the semi-vowel as in Eng. *we*, not the spirant as in Eng. *eve*:

acc. **ṷiḱ-ṃ*, OP *viθam* 'house', Skt. *víśam*, cf. Lt. *vīcus* 'village'.

pl. **ṷei* 'we', OP *vayam*, Skt. *vayám*, Gt. *wei-s*.

pIE **deiṷo-*, OP *daiva-* 'demon', Skt. *devá-* 'god', Lt. *dīvos*.

pIE **guīṷo-* 'living', OP *jīva*, Skt. *jīvá-s*, Lt. *vīvos*.

After consonants also, pIE *ṷ* remains unchanged in OP and in Skt., but is regularly written *-uv-* in OP (§26):

OP *haruva-* 'all', Skt. *sárva-*.

OP loc. *duvarayā* 'at the door', Skt. *dhvar-*.

OP acc. *θuvām*, Skt. *tvā́m*; but dissyllabic OP *tuvam*, Skt. *tuvám*.

OP *θanuwaniya* 'bowman', cf. Skt. *dhánvan-* 'bow'.

But pIE *ṷ* was lost after labial stops: OP 2d sg. opt. *biyāʰ*, 3d sg. *biyāᵗ*, from **bhụ-iụē-*, to root **bheu-*, see Lex. s.v. *bav-*.

Note pAr. $t\underset{\smile}{u}$ > pIr. $\theta\underset{\smile}{u}$ > OP θv, §81; pAr. $s\underset{\smile}{u}$ > pIr. $h\underset{\smile}{u}$ > OP hv, written uv for ^huw, and Med. f in $farnah$-, §118.IV; pAr. $r\underset{\smile}{u}$ and $r\!\!\underset{\smproto}{u}$, §35.

At the end of a word, v was added in OP to final u: OP $paruv$ 'much', Skt. $purú$, Gk. πολύ; OP loc. $Margauv\ Hi^ndauv\ Bābirauv$ (§38). Occasionally medial $-av-$ was written $-auv-$, see §48. Very rarely $-u\text{-}v^\circ$- = $-uv$- was used to indicate length of $\bar{u}$, see §23.

§115. pIE s remained unchanged in pAr. except as follows: (1) pIE s became pAr. $š$ if preceded by pAr. i-vowel or u-vowel (including long and short vowels and diphthongs), or by pAr. r or $r\!\!\underset{\smproto}{}$ (also from pIE l or $l\!\!\underset{\smproto}{}$), or by a pAr. palatal or velar stop; and (2) pIE s became a weak h-sound, indicated by $ḥ$ (called in Skt. visarga), when final after pAr. $ă$ and immediately followed by a pause between phrases or at the end of a sentence.

pAr. s remained in pIr. before pAr. $p\ t\ k$ (and presumably before pAr. $ph\ th\ kh$, but of these there are no certain examples in OP); but in other positions it became pIr. h.

Final s was subject in Aryan to various sandhi developments other than $-š$ and $-ḥ$; these are best seen in Sanskrit. But Iranian generalized $-š$ and $-ḥ$ and shows only these values and their direct phonetic developments, except for a few combinations with enclitics (the OP examples are in §105). Skt. words and forms will be cited with $-ṣ$ and $-ḥ$ in order to show clearly their relation to the OP words and forms with which they are compared.

The developments of pIr. $s\ š\ h\ ḥ$ in Iranian and in OP will be discussed in the following sections.

§116. pIr. s from pIE s in pIr. $st\ sp\ sk$ remained in OP without change:

st in pIE $*esti$ 'he is', OP $astiy$, Skt. $ásti$, Lt. est; pIE $*ĝhosto$- 'hand', OP $dasta$-, Av. $zasta$-, Skt. $hásta$-. OP $avāstāyam$ 'I restored', cf. Lt. $stāre$; OP $stānam$ 'place', Skt. $sthánam$ (it is uncertain whether the Iranian as well as the Skt. goes back to pIE sth-, but if so the aspiration was regularly lost in Iranian after a sibilant; other languages have the products of the non-aspirate).

sp in $spāda$- 'army', in $Taxmaspāda$- (name of a Mede); in $Vāyaspāra$- (name of a Persian):

but the ultimate origin of these words is not clear.

sk in $skauθi$-, Sku^nxa-, $Skudra$-: all non-Persian words by origin, and given here only as evidence for the occurrence of the sound cluster.

OP s is more commonly of other origins: (Med.) s from pIE $\hat{k}$, §87; from clusters containing pIE $\hat{k}$, §90, §93, §95; from pIE dental stop + t, becoming tst, §85; and in words of uncertain etymology or borrowed from other languages: $Saka$-, $Sug(u)da$-, $Nisāya$-, si^nkabru-, and the dubious $siyamam$.

§117. pIr. $š$ from pIE s after certain sounds (§115) remained unchanged in OP:

OP $maθišta$- 'greatest', Av. $masišta$-, Gk. μήκιστος 'longest'.

OP $frāišayam$ 'I sent', Skt. $eṣayati$ 'he brings'.

OP $uška$- 'dry', Av. $huška$-, Lith. $saũsa$-s.

OP $gauša$- 'ear', Skt. $ghóṣa$- 'noise'.

OP $adaršnauš$ 'he dared', Skt. $dhṛṣṇóti$ 'he dares'.

OP $arša$- 'male' in $Aršāma$- 'Arsames', Skt. $ṛṣa$-$bhá$- 'bull'.

pIE $*sed$-$əs$- in OP $hadiš$ 'seat', cf. Gk. ἕδος (from pIE $*sedos$).

pIE $*e$-si-ste-to, OP $a^hištatā$ 'he stood', cf. Gk. ἵσταται 'he stands' (from $*sistətai$).

pIE $*ṛsti$-, OP nom. $arštiš$, Skt. $ṛṣṭí$-$ṣ$ (cf. §115). OP nom. $tanūš$ 'body', Skt. $tanū$-$ṣ$.

For ks and other clusters giving $xš$, see §102; for $\hat{k}n$ and $\hat{g}n$ giving initial $xšn$ and medial $šn$, §96; for $-šc$- as a sandhi product, §105; for pAr. $c\underset{\smile}{i}$ giving OP $šy$, §104; for pAr. $t\underset{\smile}{i}$ giving OP $šy$ §80; for pAr. tn giving OP $šn$, §82.

The verbal prefix ni- affects an initial s of the verbal root; thus ni-$štā$- from ni- + $stā$- and ni-$šad$- from ni- + sad- (Iran. had-), and the value $š$ is extended to positions where the $š$ is separated from the i by the augment: $niyaštāyam$ 'I commanded' (but $avāstāyam$ 'I restored'), $niyašāda$-yam 'I commanded'. So also the enclitic pronoun $-šaiy$ $-šim$ $-šām$ $-šiš$ is generalized in the form which developed after a final i or u of the word to which it was attached; cf. Av. $hōi$ $hīm$ $hīš$, showing the generalization of initial h, which was regular after most finals.

For $št$ from pIE $\hat{k}t$, §93. The sound $š$ also occurs in borrowed words, such as $maškā$- 'inflated skin' (from Aramaic); and in proper names, the origin of which is not always clear (here

only after *i* and *u*): *Kāpišakāni-*, *Kūša-*, *Cišpi-*, *Patišuvari-*, *Adukanaiša-*, *Çūšā-*, etc.

§118. pIr. *h* from pIE *s*, §115.

I. pIr. *h* remained in OP.

pIE **solu̯o-* 'all', OP *haruva*, Skt. *sárva-*.

pIE **sn̥t-i̯om*, OP *hašiyam* 'truth', Skt. *satyám*, cf. Eng. *sooth*.

pAr. **sainā-* 'army', OP *hainā-*, Skt. *sénā-*.

OP *vāhara-* 'spring' in *Θūra-vāhara-*, Skt. *vāsará-* 'bright', Lith. *vãsara* 'summer'.

pIE gen. *-osi̯o*, OP *martiy-ahyā* 'of a man', Skt. *márty-ahya*.

pIE acc. **nās-m̥*, OP *nāham*, Skt. *nā́sam*.

II. Before *r* and *m* the *h* was not written in OP:

OP *rauta* 'river', Skt. *srótas-* 'current, river'.

OP *amiy* 'I am', LAv. *ahmi*, Skt. *ásmi*, from pIE **esmi*.

OP *amāxam* 'of us', Av. *ahmākəm*, Skt. *asmā́kam*.

OP *taumā* 'family', for **tauhmā* from **tauxmā*, §103.II.

III. OP *hai* was written with *hᵃi*; OP *hi* initial or medial was written by *i* or by *hᵃ*; OP written *hᵃiy̆ᵃ = hiy*, which we expect for non-final *hy* and *hiy* and for final *hi*, is normally written without the *i*; OP final *hᵃy̆ᵃ = -hy* (for *-hi*) loses the *y̆ᵃ* if it is followed by an enclitic. For examples, and a complete list of exceptions, see §27.

IV. The writing *hᵃu* was normal for *hau*, as in *hauv*, *hauvam*, *haumavarga-*, *Vahauka-*, but was not used for *hu*; to express *hu*, with vocalic *u*, the single character *u* was used, and to express *huw* for *hu̯* (from *su̯*), *uwᵃ* was written—the *hᵃ* being omitted in both situations:

Nom. *Dārayavaʰuš*, gen. *Dārayavahauš*.

Nom. *Haraʰuvatiš*, Skt. *sárasvatī*.

Loc. pl. *aniyāʰuv-ā*, Skt. *anyā́su*.

ʰuwa- 'own', Av. *xᵛᵃ-*, Skt. *sva-*.

ʰuwaspa- 'having good horses', Skt. *sv-áśva-*.

In the name *Viⁿda-farnah-* 'Intaphernes', the second element is identical with Av. *xᵛarənah-* 'royal splendor', from pIE **su̯el-nos*, cf. Skt. *svar-* 'sun', Lt. *sōl*; the *f* instead of OP *hu̯* from *su̯* seems to be a Median peculiarity, although Intaphernes was one of the Persians who aided Darius to overthrow the false Smerdis.

V. There are other words with *h*, which are of uncertain etymology or are borrowed from other languages: *Anāhitā*, usually written *Anahata*, the name of a goddess with apparently an Iranian name based on an unidentifiable root; *Haldita-*, an Armenian; *Hiⁿduš*, a province-name from Indic, but with Iranian development of the initial *s*.

VI. For the loss of *h* in the sequence *ahah*, and subsequent contraction of the vowels, see §131.

§119. pAr. *ḥ* developed from pIE *s* after pAr. *ă* when final in the phrase or sentence; it was not written in OP, but its presence as a sound is indicated by the fact that final *ă* remains *ă* in the writing if it is followed by *ḥ*, but is written *ā* if it is absolutely final. When it is desirable to indicate this unwritten *ḥ*, we use a raised *ḥ* or a raised *s*,[1] as may be more convenient.

OP nom. *martiya*ʰ, Skt. *mártyaḥ*, from pIE *-os*.

OP nom. pl. *bagāha*ʰ 'gods', cf. Skt. Ved. *devásaḥ* 'gods'.

But OP *abaraⁿtā*, Skt. *ábharanta*; OP *agarbāyatā*, Skt. *agr̥bhāyata*.

After *ā*, there is no evidence of the survival of *h* as an unwritten sound in OP:

OP gen. *taumāyā* 'family', Skt. gen. *-āyāḥ* in *-ā-* stems.

OP npf. *kartā* 'done, made', Skt. *kr̥tā́ḥ*.

The inst. pl. *raucabiš*, to *rauca* 'day', raises a problem. The corresponding declension of neuter *-os/es-* stems is, with partial use of Skt. *mánas-* 'mind' and Av. *manah-* 'mind, sense':

	pIE	Skt.	Av.	OP
Nom. sg.	**menos*	*mánaḥ*	*manō*	*rauca*ʰ
Ins. pl.	**menez-bhis*	*mánōbhiṣ*	*manəbīš*	*raucabiš*
Loc. pl.	**menes-su*	*mánaḥsu*	*raočōhv-a*	

Apparently the suffix *-as-* or *-az-* was in some forms replaced by *-ah-* where *-ah-* yielded an easier phonetic development. We may assume that *raucabiš* is from *raucah-bhiš*, that the *ḥ* became voiced before the voiced stop and was lost in OP, but in Av. and Skt. was lost with an attendant change of the preceding vowel to *ō*. A similar replacement is seen in *zūraʰ-kara-* 'evildoer', where the *ḥ* is lost before the voiceless stop; cf. Skt. *manaḥ-pati-* 'Lord of the Mind'.

§120. pIE *z* developed in pIE only (1) from *s* which in word-formation came to stand before a voiced stop; (2) from *s* which in word-formation

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[1] The *s* indicates more clearly the etymological origin; similarly, we quote Sanskrit words with either *-ḥ* or *-s*.

came to stand after a voiced aspirated stop (of this there are no examples in OP); (3) in the voiced clusters *dzd* and *dzdh* which developed from certain combinations of dental + dental (§85).[1] There are only a few examples:

Personal name *Vahyaz-dāta-* '(Follower of) the Better Law', with *vahyas-* 'better' (Skt. *vásyas-*) + *dāta-* 'law'.

azdā and *Aura-mazdāh-*, with *-dzdh-*, see §85; for *basta-* and *gasta-*, with participial *-tst-* replacing *-dzdh-*, see §85.

The Aryan prefix **niš-*, from pIE **ni* + *s* (§115), became *niž* before voiced stops, as in Av. *niž-bərəta-* 'carrying off' (nt. sb.), and is written *nij-* in OP *nij-āyam* 'I went forth'.

Other instances of *z* are largely the product of pIE *ĝ* and *ĝh* in Median (§88, §91), or in OP before consonants (§91, §95); such a *z* became *s* and then *š* before *n*:

pIE *ĝ*: *paruzana-, vispazana-, Varkazana-, vazraka-*.

pIE *ĝh*: *brazmaniya-, Uvārazmī-, uzma-, zūra-, zūrakara-*.

pIE *ĝ* or *ĝh*: *Zraⁿka-*.

pIE *ĝhu̯*: *patiyazbayam, hᵃzānam*.

Names of non-Iranian places: *Zazāna-, Zūzahya-, Izalā-*.

It is to be noted that OP *z* remained unchanged before *m*, as in *brazman-*, though it became voiceless (and was further changed) before *n*, as in *baršnā*. But the *zm* which was retained in GAv. became *sm* in LAv.

§121. THE ABLAUT GRADES OF THE VOWELS: The pIE variation of the vowels, known as ablaut gradation, is well represented in OP, though it is obscured by the pAr. changes: pIE *e o a* became pAr. *a*, pIE *ē ō ā* became pAr. *ā*, and the diphthongs similarly were reduced to pAr. *ai āi, au āu*. Further, the reduced ъ before liquid, nasal, or semivowel, became *a* in pAr.; cf. also the development of the long vocalic liquids and nasals, §68. In general, then, the pIE series assumed the following forms in OP:

pIE			OP		
Series I					
e o	nil ъ ъ	ē ō	a	nil a	ā
ei oi	i[2]	ēi ōi	ai	i[2]	āi
eu ou	u[2]	ēu ōu	au	u[2]	āi
er[1] or	r[2] ъr ъr	ēr ōr	ar	r[2] ar	ār
en[3] on	n[2] ъn ъn	ēn ōn	an	a,n an	ān
Series II[5]					
a[4]	nil	ā ō	a	nil	ā
Series IV and V					
ē[7] ō	ə		ā	i,a[6]	
ā ō	ə		ā	i,a[6]	

Notes to the Table: (1) Similarly, pIE *el* etc., which became pAr. *ar* etc. (2) Either consonantal or vocalic, according to the nature of the neighboring sounds. (3) Similarly, pIE *em* etc., which gave pAr. *am* etc. (4) There are diphthongal varieties of this series, as of Series I; but few if any examples of this series can be identified in extant OP. (5) Series III, consisting of *o o* nil etc., and Series VI, consisting of *ō ō ə*, may be merely varieties of Series I and IV lacking extant examples of grades *e* and *ē* respectively. (6) The value *a* developed before *i* and *u*, *i̯* and *u̯*. (7) There are diphthongal varieties of Series IV and V, with zero-grades *əi* or *ī*, *əu* or *ū*, etc.

Apart from details, the vowel grades in the first two columns of the pIE belong by origin to accented syllables, those in the first to primarily accented syllables and those in the second to secondarily accented syllables; they are known as normal grades or accented grades. Those in the next three columns of the pIE belong by origin to unaccented syllables; those in the third column are known as zero grades, and those in the fourth and fifth as reduced grades. Those in the last two columns of the pIE have acquired length through special circumstances, such as contraction of the initial vowel of a verb with the vocalic augment, the marking of a derivative noun from a verbal root, the indication of the causative stem of a verb, or the indication of the nominative singular of a noun (sometimes extended to the accusative singular and the nominative plural); they are known as long grades, and originally bore respectively the primary and the secondary accent. But such a schematic distribution of the grades could not be thoroughgoing, since it would result in the alteration of related forms beyond the possibility of recognition, and analogy therefore interfered to preserve a useful similarity in related forms.

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[1] As in §58.Ab, I intentionally omit Sturtevant's pIE *z* coming from pIH *s* with a preceding *γ* (the third laryngeal, which was voiced).

In the following lists, an attempt will be made to differentiate *e* and *o* grades; where this is impossible, the pre-form will be given with pAr. vocalism. For the most part, only examples will be given which show two different grades in OP itself.

§122. ABLAUT VARIATION WITHIN THE ROOT: examples from OP:

*es- in *as-tiy* 'he is', *s- in *h-a^ntiy* 'they are', *ēs- augmented) in *āh-am* 'I was'.

*ped- or *pod- 'foot' in *ni-padiy pati-padam Garma-pada-*, (Ar.) *pād- in *pādaibiya* 'with the two feet'.

*sed- 'sit' in *had-iš* 'seat, abode'; (Ar.) *sād- in *niyašādayam* 'I established'.

*nek̑- 'perish', in *vi-nas-ta-* 'damage', (Ar.) *nāš- in *viy-anāθaya* 'he injured'.

*ei- 'go' in *aitiy* 'he goes', *i- in *-idiy* 'go thou' (*para-idiy*, *parīdiy* from *pari-idiy*) and *-itā* 'gone' (*para-itā*); *ēi- (augmented) in *upāyam* (from *upa-āyam*) 'I arrived', *upariy-āyam* 'I behaved', *atiy-āiš* 'he went past'.

*peik̑- 'cut' in *ni-paištanaiy* 'to inscribe'; *pik̑- in ptc. *ni-pištam* 'inscribed'.

*teu- in *taumā* 'power', *u-tava* 'having good strength', *tauvīyā* 'stronger' (for *tavīyā*, §48); *tu- in *tunuvā* 'powerful'; (Ar.) *tāu- in *tāvay-atiy* 'he is strong'.

*dhrouĝh- in *drauga* 'Lie', *dhruĝh- in *duruxtam* 'false'.

*g^uou- in *Gau-māta, Gau-baruva*; *g^uu- in *θata-gu-š* (but see Lex. s.v.); (*g^uōu- in Skt. *gáúṣ* 'cow').

*bheu- 'become' in *bavatiy* 'he is'; *bhṷ- in *biyā* 'may he be'.

*bher- 'bear' in *bara^ntiy* 'they bear'; *bhor- in *aršti-bara* 'spear-bearer'; *bhṛ- in *u-bar-tam* 'well uplifted'; *bhōr- in *asa-bāra-* 'horse-borne', *uša-bāri-* 'camel-borne'.

*qer- 'make, do' in *cartanaiy* 'to do'; *qor- in *zūra-kara* 'evil-doer'; *qṛ- in *ca-xr-iyā* 'he might make', *qṛ- in *kartam* 'made'; *qṷr- in *akariya* 'it was done'; *qēr- in *u-cāram* 'successful'.

*mer- 'die' in *marīka-* 'menial person' (see Lex. s.v.), *mor- in *martiya* 'man' (see Lex. s.v.), *mṛ- in *marta* 'dead', *uvā-maršiyuš* 'by self-death' (see Lex. s.v.); perhaps *mṷr- in *amari-yatā* 'he died' (cf. Av. *miryeite* 'he dies').

*bhendh- or *bhondh- in *ba^ndaka* 'subject', *bhṇdh- in *basta* 'bound'.

*g^uhen- in *ajanam* 'I smote', *g^uhṇ- in *jadiy* 'do thou smite', *-jata* 'slain'.

*dher- or *dhṛ- in *adaršiy* 'I held'; *dhr- in *duruva-* 'firm'; (Ar.) *dār- in *dārayatiy* 'he holds'.

*g^uem- 'come' in *ā-jamiyā* 'may it come', *g^um- in *parāgmatā* 'gone forth' (see §244).

*ap- 'water' in inst. pl. *abiš*, *āp- in nom. *āpiš*, loc. *āpiyā*.

*bhag- in *baga* 'god', *bhāg- in *bāji-* 'tribute'.

*g^uoi- in *gaiθām* 'cattle' (*oi* proved by the lack of palatalization of the *g*), *g^uī- in *jīva* 'living'.

*prek̑- in *ufraštam* 'well punished', *pṛk̑- in *aparsam* 'I punished'.

*reĝ- 'direct, rule' or *roĝ- in *uradanām*; *ṛĝ- in *arštām, Ardu-maniš*; *rēĝ- in *rāstam* 'right' (cf. §93.n2).

*stā- 'place' in *stānam, avāstāyam, niyaštāyam*; reduced to *st- with thematic vowel, instead of *stə-, in *a^hištatā*.

(Ar.) *pā- 'protect' in *pādiy, pātuv, pāta*; *pə- in *apayaiy, patipayauvā* (§214).

*ĝnō- in *xšnāsātiy*; *ĝnə-u- in *ā-xšnautiy*, cf. *ĝn-u- in *xšnuta* (§208).

*dhē- 'put', only in this grade: *adā* 'he made', *dātam* 'law'.

*dō- 'give', only in this grade: *dadātuv* 'let him give'.

§123. FUNCTIONAL ABLAUT VARIATION WITHIN THE VERBAL ROOT: examples are found in the preceding section; they include

(1) strong grade varying with zero or reduced inside the regular paradigm, with long grade where there is contraction with the augment;

(2) long grade in causative formations, where other languages show the -ŏ- grade: *vi-nāθaya-, Lt. *noceō*; *dāraya-, mānaya-, çāraya-, -šādaya-, tāvaya-, jāvaya-*.

(3) long grade in substantives from the verbal root: *asa-bāra-, uša-bāri-; u-cāram, bāji-*.

§124. FUNCTIONAL ABLAUT VARIATION WITHIN THE LAST STEM-SYLLABLE OF NOUNS:

(1) In -ŏ- stems: nom. -os as in *martiya*, and -o- in several other forms; voc. -e in *martiyā*; see §169.

(2) In -u- stems: (Ar.) -au in loc. sg. *dahyauv-ā*, -u- in loc. pl. *dahyu-šuvā*, -āu- in nom. sg. *dahyāu-š*; see §180. Nom. sg. *Dārayava^huš* and acc. -va^hum with -u-, gen. -vahauš with (Ar.) -au-. Perhaps *Pirāvā* 'Nile' with -āv-, to *piruš* 'ivory', cf. Lex. s.v

(3) In *-i-* stems: *-i-* in nom. *Cišpiš*, (Ar.) *-ai-* in gen. *Cišpaiš*; see §177.

(4) In *-s-* stems: *-nos* in nom.-acc. nt. *manaš-cā*, *-nes-* in instr. *manahā*, *-nēs* in nom. masc. *Vida-farnā*, *-nəs* in *Haxā-maniš*, *Ardu-maniš*; see §185.

(5) The long grade as marker of the nom. sg. of consonantal stems: *-t-* stem *napā*, *-r-* stems *pitā -mātā brātā dauštā*, *-n-* stems *asā artāvā xšaçapāvā*; see §188, §186, §187. Of the long grade *-tē[r]* in *pitā*, the zero-grade *-tr-* is seen in gen. *piça* from **pə-tr-os*. The *-u-* stem *dahyāuš* (see above, 2) also belongs here.

(6) The long grade as marker of the acc. sg. of these same classes: *asmānam framātāram nāham hᵃzānam dahyāum dahyāvam*, see §184.

(7) The long grade as marker of the nom. pl. of these same classes: *dahyāva*; see §183.

§125. GUNA AND VRIDDHI: The Hindu grammarians recognized a variation of vowels within the same root or formative element. The vowels which they recognized in their system of roots were taken by them as the fundamental vowels; prefixation of *ă* gave to each the guna-form (Skt. *guṇa*); lengthening of the guna-form gave the vriddhi-form (Skt. *vṛddhi* 'growth'). But '*ă* was its own guna'; that is, *ă* unchanged was also the guna of *ă*. Thus they got the following correspondences; note that to the Hindu grammarians the *e* and *o* were diphthongs *ai* and *au* (as they really were!).

Fundamental:	*a*	*ā*	*i ī*	*u ū*	*ṛ*	*ḷ*
Guna:	*a*	*ā*	*e*	*o*	*ar*	*al*
Vriddhi:	*ā*	*ā*	*āi*	*āu*	*ār*	*āl*

In the main, this scheme represents the development of the pIE ablaut series in Aryan, where pIE *e o a* became *a* and pIE *ē ō ā* became *ā*; and it would be unnecessary to introduce it here, if it were not that in both branches of Aryan, and in no other branch of Indo-European, the alteration to vriddhi-vowels was an important method of word-formation. In this use, *ī* and *ū* sometimes functioned as the vriddhi-vowels corresponding to *i* and *u* (instead of the *āi* and *āu* in the table given above).

§126. VRIDDHI AS A FORMATIVE. Vriddhi or lengthening of the vowel was in Aryan a much-used method of forming derivatives; many adjectives, for example, are in Skt. distinguished from the nouns from which they come, only by the vriddhi-vowel in the initial syllable. There are a number of certain examples in OP (apart from those in which the long-grade vowel may be considered a direct inheritance from pIE or from a pIE system of formation):

dāraniya-kara- 'goldsmith', to *daraniya-* 'gold'.

Bāga-yādi- 'God-worship (month)', to *baga-* 'god'.

uwārštika 'good spearsman' (**hvār-*), to *arštiš* 'spear', Skt. *ṛṣṭi-* 'spear'; this leaves it uncertain whether *ārštika* 'spearsman' agrees in vocalism with *uwārštika*, as we have taken it, or is *arštika*, with *arštiš*. Cf. the next item.

uwāsabāra 'good horseman' (**hv-āsa-*), to *asa-* 'horse'; *asabāra* with *ă* is rendered probable by the unlengthened vowel in *ušabāri-* 'camel-borne'.

uwāmaršiyuš 'having his own death' (see Lex.), to **hva-* 'own'.

uwāipašiya- 'own', with **hvāi-* in relation to *uwaipašiya-* 'own', unless the writing with *-āi-* is an error.

xšāyaθiya 'king', to *-axšayaiy* 'I ruled'.

Θāigarci- a month-name, of uncertain etymology.

yāumainiš 'skilled', derivative of **yau-man-*.

māniya- 'personal property', see Lex. s.v.

ūvnarā 'skills', to **hu-nara-* (here *u* is vriddhied to *ū*).

Mārgava 'Margian', to *Marguš* 'Margiana'.

Pārsa 'Persia', to *Parθava* 'Parthia'.

Vriddhi is probable or possible as a formative in the first syllable of the following:

The month-names *Adukanaiša-*, *Anāmaka-*, *Viyaxna-*; for two other month-names certainly have it (see above).

The personal names *Vāyaspāra-*, *Frāda-*.

The ethnic *Pātišuvaris* (to *patiy* ?).

The place name *Kāpišakāni-*.

aθagaina- or *āθagaina-* 'of stone', adj. to *aθaga-* 'stone'.

Ariya- or *Āriya-*,[1] *aruvastam* or *āruvastam*, *arjanam* or *ārjanam*.

kāsaka-, *kāsakaina-*.

Vriddhi as a factor in the second component of a compound is seen in the following:

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[1] Tedesco, ZII 2.46–7, argues for *ārya-* (OP graphic *āriya-*) exclusively, on the ground that Skt. *ărya-* is merely a later form derived from the earlier *ārya-*, which then is alone original.

yād- in *Bāga-yādi-* and *Āçi-yādiya-*, month-names.

vāhara- in *Θūra-vāhara-* a month-name, cf. Lith. *vāsara* 'summer' with earlier *ă*.

Perhaps *uvā-dā-* (for **hvā-dā-*), in *Paišiyā-uvādā-*; see Lex. s.v.

Perhaps *hU-vāra-zmīy*, *Vi-vāna*, *hU-tāna*, *Vāya-spāra-*.

-bāra-, *-bāri-*, *-cāra-*, as second elements of compounds.

Possibly nouns and adjectives formed on the root with the long vowel should be listed here: *kāma-*, *pāda-*, *bāji-*, *rāsta-*. See also the long-vowel forms in §143.

§127. EPENTHESIS is the insertion in a syllable, of *i* or *u* or other vowel by the influence of a sound in the following syllable, the result being a modification of the sound of the vowel in the syllable suffering epenthesis. It is frequent in Avestan, as in *paiti* for **pati*, OP *patiy*, or *pouru* for **paru*, OP *paruv*. The only certain example in OP is *yāumainiš* for **yāumaniš* and its compound *ayāu(ma)iniš* DNb 40, 59. It is less likely that *Paišiyāuwādā-* is for **paṣ̌i̯-ā-hvādā-*, for **pati̯-*, with epenthesis (see Lex. s.v.).

§128. ANAPTYXIS is the development of a vowel between two consonants which the speaker finds it difficult to pronounce without an intervening vowel; cf. the common pronunciation of *athletic* as *athəletic*. OP has anaptyxis in the cluster *dr* when it is followed by *u*: *duruva* 'firm', Skt. *dhruvá-s*; *duruxtam* 'false', Skt. *drudham*; *adurujiya* 'he lied', cf. Av. acc. *drujim* 'devil'. The only other cluster which suffered anaptyxis in OP was *gd*, which we find in the name of Sogdiana in its various writings: *sᵃugᵘudᵃ* = *Suguda*, *sᵃugᵘdᵃ* = *Sugᵘda*, but also *sᵃugᵘdᵃ* = *Sugda*, so that here the pronunciation was a shifting one.

There is a possibility that there was anaptyxis in the clusters *dr br fr zr* before *a*, but OP writing can give no evidence on this point. NPers. has *durōγ* = OP *drauga*, *birādär* = OP *brātā*, *fārmān* = *framānā*; but the anaptyxis may be later than the OP period. For *Zraⁿka*, Greek has *Ζαράγγαι* (in Arrian) and *Σαράγγαι* (in Herodotus) with anaptyxis, but Greek has no initial *sr-* or *zr-*, and there is also the form *Δραγγιἀρή* (in Diodorus) without anaptyxis, when the initial cluster is one which is normal in

Greek. To these words we may add *draya* 'sea', and *Nabukudracara*. The assumption that the anaptyxis seen in the NPers. words is later than the OP times, facilitates the derivation of NPers. *buzurg* from *vazraka* (rather than from *vazarka* or *vaz̧rka*, see Lex. s.v.).

§129. HAPLOLOGY is the loss of one of two similar sequences of sounds, each containing at least one consonant and one vowel, or one vowel and at least one consonant: thus English *mineralogy* from **mineralology*. OP has one certain example, *hamātā* from **hama-mātā* 'having the same mother', cf. *hama-pitā* 'having the same father', where no haplology is possible. A second example, probable but less certain, is *duvarθim* from **dvar-varθim* 'door-cover', = 'colonnade'. Possibly also *aršta-* 'rectitude' from **aršta-tā-*, but cf. Lex. s.v.; and *dīdiy* 'see thou', if reduplicated pres. imv. **dhi-dhī-dhi* rather than aor. imv. **dhī-dhi*.

§130. SHORTENING OF LONG CONSONANTS. Long consonants frequently developed in word formation, either by juxtaposition of two identical consonants or by assimilation of one consonant to a contiguous consonant. All long consonants of earlier origin were shortened in pIr., and long consonants of later origin were shortened in pIr. or in OP. There are the following examples in OP:

pIE *sk̂* > pAr. *śś* > pIr. *ss* > *s* in the *-sk̂e-* present-stems, such as OP *parsāmiy*, Skt. *pr̥cchā́mi*, Lt. *poscō*; §97.

pIE *k̂s* > pAr. *ćš* (§92) > pIr. *šš* > *š* in OP aor. *niy-apaišam* to pIE root **peik̂-*; §102.

pIE *str* (after *u*) > pAr. *štr* > pIr. *štr* > OP *šθr šç šš š* as in OP *uša-* 'camel', Av. *uštra-*; §79.

pIE *dn* > pAr. *nn* > pIr. *n* as in OP *vaināmiy* 'I see' to pIE **u̯eid-*; §83.I.

pIE *pbh* > pIE pAr. *bbh* > pIr. *bb* > *b*, as in *abiš* from **ap-bhis* (§75.IV).

This shortening took place in most languages before and after consonants; OP example: *uzma-* 'stake' from **ud-zma*, §84.

The shortening of the sandhi combination *-d c-* to *-c-* in *aciy yaciy* (§105) is probably by way of assimilation of the weak *-d* (§84) to the following *c-*, whereupon the long consonant was shortened; but the shortening of sandhi combinations may be merely graphic when free enclitics were attached in OP, as in *āpišim* = *āpiš-šim*, *tau-*

maniš̌aiy = taumaniš-šaiy, [nᵃyā]kama = -kam-maiy, §138.

§131. CONTRACTION OF VOWELS took place in OP (or in pre-OP) when in word formation or composition two vowels came into immediate contact. There are the following examples:

$\breve{a} + \breve{a} > \bar{a}$: **ava-arasam > avārasam, *xšaya-aršā > Xšayāršā; *upa-āyam > upāyam; *fra-āišayam > frāišayam; *parā-arasam > parārasam; *ā-āyaⁿtā > āyaⁿtā; *pasā-ava > pasāva; *ariya-āramnā > Ariyāramnā.*

$\breve{a} + i > ai$: **parā-ilā > paraitā; *parā-idiy > paraidiy.*

$\breve{a} + \breve{a}i > \bar{a}i$: **fra-āišayam > frāišayam.*

$\breve{a} + u > au$: pAr. masc. **sa* and fem. **sā + *u* + OP masc.-fem. *hauv.*

$\breve{\imath} + \breve{\imath} > \bar{\imath}$: **pari-idiy > parīdiy.*

-iya- in the interior of words > *-ī-*, see §23.I.

The view has been expressed that *h* was lost between two *a*-vowels which then contracted to *ā*; but this is true only if the sequence is *-ahah-*; note *fraharavam, avahar[da], Auramazdāha -dāhā -dahā, nāham, aniyāha bagāha, āvahanam, Θura-vāhara-, āham* and other forms of the tense, *aθaham aθaha* etc., *maniyāhaiy, frāhaⁿjam.* The examples of *ahah > āh* are the following:

*ahahy > āhy 'thou mayst be', cf. *ahatiy* 'he may be'.

*θahāhy > θāhy 'thou mayest say'.

*θahahy > *θāhy 'thou sayest', whence by analogy **θahatiy > θātiy* 'he says'.

*māhahyā > māhyā 'of the month' (not loc., see Lex. s.v.).

Vivāna is hardly **vi-vah-ana-*, with the same prefix and root as Av. *Vī-vah-vant-*, Skt. *Vi-vás-vant-; apariyāya* is not **ahap-*, see Lex. s.v. *ay-*.

For the sequence *ăhă* there are some wrong writings in XPh: *ahᵃamᵃ = āhām* for *ahᵃmᵃ = āham* 'I was', *ahᵃnᵃiyᵃ = ahaniy* for **ahᵃanᵃiy = *ahāniy* 'may I be', (gen.) *aurᵃmᵃzᵃdᵃhᵃa = Auramazdāha* (4 occurrences; also twice in XPf) for *-dᵃahᵃ = -dāha* or *-dᵃahᵃa = -dāhā;* but these miswritings, some of them probably explainable (§52, §53, §222.I), do not controvert the views expressed above.

§132. CONSONANTAL VARIATION occurs in OP words as a result of (1) internal sandhi in word formation, (2) pAr. phonetic developments, (3) pIr. phonetic developments, (4) dialect mixture of OP and Median.

(1) Neg. *a-* before consonants, *an-* before vowels, from **ṇ-*; prefix *ha-* and *ham-* similarly (= Skt. *sa-* and *sam-*). Root final before dental suffixes: pIE *gh* and *gh-t > gdh*, replaced by the product of *gt* in OP: *adurujiya* and *duruxtam* (§73.III, §242). pIE *dh* and *dh-t > dzdh*, replaced by the product of *tst* in OP: *baⁿdaka* and *basta* (§85, §242).

(2) pAr. palatalization of velars before palatal vowels, giving an alternation in OP *k/c, g/j* (§73.III): *Maka Maciyā, kunautiy kartam cartanaiy, kašciy cišciy, drauga draujana adurujiya, parā-gmatā haᵐgmatā ā-jamiyā.*

(2-3) pAr. split of pIE *s* into *s š ḥ*, and pIr. split of pAr. *s* into *s* and *h* (§115): *stānam avās-tāyam niyašṭāyam aʰištatā; hadiš niy-ašādayam; aθaham θastanaiy;* nom. ending in *baga-ʰ pasti-š piru-š.*

(3) pIr. change of *p t k* to *f θ x* before consonants (§74.I): *parā* but *fra-, aparsam* but *-fraštam, tuwam* but acc. *θuwām, akariya* but *caxriyā, drauga adurujiya* but *duruxtam.*

(4) On the differences between OP and Median consonantism, see §8.

§133. ENCLISIS is a frequent phenomenon in OP. The enclitics are the following:

Pronouns: 1st sg. acc. *-mā,* gen. *-maiy,* abl. *-ma.*
2d sg. gen. *-taiy.*
3d sg. acc. *-šim,* gen. *-šaiy,* abl. *-ša;* pl. acc. *-šiš,* gen. *-šām.*
acc. *-dim;* pl. acc. *-diš.*
pl. acc. *-tā* (dubious; only in *avaθāša-tā* DB 4.72).

Coordinating conjunctions: *-cā* 'and', *-vā* 'or'.

Postpositions: *ā, patiy;* both also as separate words before or after their nouns.

Adverbs and particles: *-am, -kaiy, -ciy, -diy,* never separately.
-apiy, -patiy both also separately.

Miscellaneous: *tya* in *mātya* DB 4.43, 48, 71; *yadātya* XPh 35f (miswritten *yadāyā* XPh 39), cf. *yaθā : tya* XPh 29.
mām, elsewhere orthotone, in *mātyamām* DB 1.52.
rādiy in *avahya-rādiy* DB 1.6f, etc.; also separately.

Double enclisis: *mā-tya-mām* DB 1.52; *rauca-pati-vā* DB 1.20; *nai-pati-mā* DNb 20; *avā-*

karam-ca-maiy DNb 27f; *ciyākaram-ca-maiy* DNb 51, 51f.

Exceptions: *diš* is written as a separate word (i.e. with a preceding divider) in DB 4.34, 35, 36; so also *taiy* in DNb 58. But *daiy* in DB 5.11 is a wrong reading, cf. §44. Other variations are noted above.

§134. THE PHONETICS OF ENCLISIS has certain effects on the writing of words with enclitics. Thus the addition of an enclitic normally prevents the prolongation of *-ă -ĭ -ŭ* to *-ā -ĭy -ŭv* in the reduction to writing; and there are a few examples in which other results take place. These are discussed in the following paragraphs.

§135. THE *-ă* BEFORE ENCLITIC normally reverts to its true value, and the indication of length disappears: thus

manā but *mana-cā*; *avākaram-ca-maiy*; *avahya-rādiy*; *fra-haravam*.

avadā but *avada-ša*, *avada-šim*, *avada-šiš*; but *avadā-sim* DB 3.74.

ada-kaiy; *dūrada-ša*.

utā but *uta-maiy* (often), *uta-šim* XPh 34; but more often the *utā* keeps the *ā*: *utā-maiy*, *utā-taiy*, *utā-šaiy*, *utā-šim*, *utā-šām*, *utā-diš*. The retention of the *ā* is by analogy to the separate word.

§136. THE *-iy* BEFORE ENCLITIC normally reverts to its true value, without the *-y*; but occasionally analogy of the separate word causes its retention:

nai-mā, *nai-maiy*, *nai-šim*, *nai-pati-mā*, *pati-maiy*, *tyai-šaiy*, *imai-vā*, *yadi-patiy*, *yadi-vā*, *[uš]ī-cā*; similarly in phrasal compounds, *pati-padam*, *ni-padiy*. By analogy, *naiy-diš* DB 4.73, 78.

dūraiy + *apiy*, which is most often two words, appears as *dūraiapiy*, without the *y*, and also as *dūrayapiy*, showing the development of intervocalic *i* to *y*.

Locatives with postpositive *ā*: *-ăi(y)* became *-ăy-* before the *ā*, as in *duvarayā* from **dvarai* + *ā*, *Aθurāyā* from **Aθurāi* + *ā*. But the script does not show whether locatives in *-i* changed the *i* to *y* before *ā*, or kept the vowel by analogy: *drayahyā* (once *-hiyā*) may represent either *-hị-* or *-hiị-*.

Final *-hy* written for *-hiy* (§37) was reduced to *hᵃ* before an enclitic: *vikanāhy* and *vikanāhᵃ-*

diš DB 4.73, 77; *paribarāhy* and *paribarāhᵃ-diš* DB 4.78, 74.

§137. THE *-uv* BEFORE ENCLITIC normally reverts to its true value, without the *-v*; but sometimes analogy of the separate word causes its retention:

hauv, but *hau-maiy hau-šaiy hau-dim hau-diš*; also *hauv-maiy hauv-taiy hauv-ciy*.

anuv, but *anu-dim*.

When *-am* is added, *-auv* should become *-av-*, but remains by analogy in *hauv-am*; *-ū* became *-ŭv-* before *-am*, in *tuvam* from **tū* + *-am*.

When *ā* is added to locatives, *-au(v)* becomes *-av-* as in *gāθavā*, or remains by analogy as in *dahyauvā*; *-u(v)* + *ā* becomes *-uvā*, which is ambiguous after consonants, representing either *-uv-* or *-v-*, as in *dahyušuvā*, *aniyāʰuvā* (cf. Skt. loc. pl. ending *-šu -su*).

§138. CONSONANTS BEFORE ENCLITICS show few changes.

I. Doubled consonants are written single: *āpiš* + *šim* = *āpišim* DB 1.95f; *taumaniš* + *šaiy* = *taumanišaiy* DNb 25f; *-kam* + *maiy* in [*nᵃyā*]*kama* A²Sa 4. In DNb 51f *ciyākaramᵐᵃcᵃiyᵃ* is twice written for *-mᵃcᵃmᵃiyᵃ*, = *ciyākaram-ca-maiy*.

II. The reduced final consonants which are not written at the ends of words rarely reappear in sandhi; the examples are of *-s c-*, *-s k-*, *-d c-*, and are given in §105.

§139. CONTRACTION OF VOWELS IN SANDHI is to be expected in combination with enclitics, but the situations which produce it rarely occur in OP; there is one probable instance, *vašnā[pi]y* XPg 7f, for *vašnā* + *apiy*.

§140. SANDHI IN CONNECTION WITH PREFIXES shows the same phenomena as with enclitics.

I. Graphic *-ā -iy -uv* for *-ă -ĭ -ŭ* revert to *-ă -ĭ -ŭ* before consonants:

Prep. *upā*, but *upa-stām*; prefix *fra-* (not occurring separately in OP) in *fra-mātāram*, *fra-haravam*.

Prep. *patiy*, but *pati-padam*; *pariy*, but *pari-barāmiy*; prefix *ni-* (not found separately in OP) in *ni-padiy*, *ni-rasātiy*.

Nt. adj. *paruv*, but *paru-zanānām*; also *paruv-zanānām* and *paruv : zanānām*, after separate *paruv*.

II. Final *-ă* contracts with following initial *ă- ĭ- ăi- ŭ-*; final *-ĭ* contracts with initial *ĭ-*; *-i*